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Territorial development and proximity relations

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*Abstract***:** The purpose of this article is to analyse and establish the link between territorial development and proximity relations, in order to show how the proximity-based approach could help gain a better understanding of territorial development processes. It is based on the idea that the definition of two main categories of territorial innovations and their inclusion in a new interpretation of Hirschman's tripod, *exit*, *voice*, *loyalty*, open the way to new analyses of the combinations of proximities that will help to determine the foundations and the occurrence of territorial development processes. We first provide a precise and well-supported definition of territorial development, before analysing and discussing the two driving forces behind territorial development – relations of production and modes of governance – while exploring their theoretical legacy in light of the proximity studies. Then we conduct a detailed static analysis of the link between proximity relations and territorial development processes by widening the notions of innovation and of Hirschman' tripod to include territorial situations – in terms of production or governance. Eventually we provide a dynamic analysis of the paths to territorial development and their links to proximity relations.

Keywords: Territorial development, proximities, innovation, production, governance

Introduction

A growing number of studies on proximity relations have been conducted in recent years; so much so that this school of thought, which until recently was considered as an alternative one, has now found its place among other regional science or space economics approaches (TORRE and WALLET, 2014). Proximity approaches are now integrated into analyses of the processes of creation and dissemination of innovation and knowledge (FERRU and RALLET, 2017; GALLAUD and TORRE, 2004), of information and communication technologies, management strategies (LEVY and TALBOT, 2015), and into the study of the modes of transportation of goods and persons.

However, one area for which the proximity approach has seldom been used is that of territorial development. This lack may seem paradoxical, given the many elements of congruence between the two approaches: the prominent attention paid to spatial relations, the interest in local production and innovation issues, the analysis of social and institutional - often non-market - dimensions, as well as the heterodox analyses proposed in response to standard spatial economy approaches. Obviously, the early studies on proximity were strongly inspired by districts, milieus or LPS based approaches to local development and their great concern for territorial dimensions (BELLET et al., 1993). But it is fair to say that most of these approaches

did not open the black box of proximity relations: they were centred on the advantages of geographical proximity, without too many deep explanations about its real functioning.

Furthermore the proximity approach has also largely developed in opposition to these approaches centred on Localized Production Systems and on spatial ties. In addition to being criticized for their localist assumption, their tendency to consider proximities primarily from a geographical point of view and as necessarily bearing positive effects has also been criticized. The development of other types of proximity, often described as non-spatial, has thus led to the exploration of new dimensions, such as the benefits of the local in relation to the global or to long distance exchanges, without necessarily making the territory a reference in terms of economic efficiency or the quality of social ties. But, at the same time, most of the early proximity analyses were most concerned by spatial interactions and innovations than that territorial dimensions. The disjunction between the two approaches persisted for a long time, as researchers in proximity studies, rather than paying more attention to local systems, preferred to focus on relationships between local firms or actors without exploring any further the question of development or its systemic character.

Today, however, everything pleads in favour of taking the leap and to propose a proximity-based interpretation of the development processes of territories. The field of research of territorial development has indeed grown and evolved to such an extent that the approach centred on localized production and innovation systems approach is no longer the only option, and other issues, related to governance or the environment for example, have imposed themselves on the agenda of researchers as well as decision-makers or local actors. Moreover, the question of territory is being raised insistently, whether in relation to decentralization policies or to the rise of issues related to negotiation and participatory democracy, or even to new forms of production, associative models, the relations to origin and local resources or sustainable territorial development. Finally, the analysis of proximity relations has extended beyond its initial scope, to explore new problems and new fields, and thus demonstrate its universal character.

The purpose of this article is to analyse and establish the link between territorial development and proximity relations, in order to show how the proximity-based approach could help gain a better understanding of territorial development processes. Analytical developments about this relation (proximity and territorial development) are missing in the theoretical literature and our elaborations are intended to pave the way for further developments in this field of research. It is based on the idea that the definition of two main categories of territorial innovations and their inclusion in a new interpretation of Hirschman's tripod, *exit*, *voice*, *loyalty*, open the way to new analyses of the combinations of proximities that will help to determine the foundations and the occurrence of territorial development processes.

In the following paragraphs, we first provide a precise and well-supported definition of territorial development, before analysing and discussing the two driving forces behind territorial development – relations of production and modes of governance – while exploring their theoretical legacy in light of the proximity studies exploring these questions. In a second section, we conduct a detailed static analysis of the link between proximity relations and territorial development processes by widening the notions of innovation and of Hirschman' tripod to include territorial situations – in terms of production or governance. We then provide a dynamic analysis by examining the paths to territorial development and their links to proximity relations.

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I. Production and governance, the two driving forces of territorial development

Production, then innovation, have always occupied a central place in analyses of development, including regional development. Focusing on governance issues, on the other hand, has been less common. Yet, they play a critical role at territorial level, because development processes involve the participation of a variety of actors or are met with opposition from local populations and give rise to issues related to the governance of production. It is important to clarify what we mean by territorial development, and to distinguish this concept from that of regional and local development, before examining the two drivers of territorial development and their main characteristics from the perspective of the still limited contributions of proximity approaches, which nevertheless contain the necessary components for understanding territorial development processes.

I.1. Territorial development

The term territorial development was coined relatively recently. For a long time, authors preferred to use the terms regional, local or bottom-up development (STOHR and TAYLOR, 1981). Scholars have tended to approach regional development (see for example NIJKAMP & POOT, 1998, STIMSON et al., 2006, or CAPELLO, 2009), from a macro-economic perspective and have focused primarily on the major regional balances, whether by using neo-classical approaches to growth, the economic base theory, or more recently the research conducted in the New Economic Geography following Krugman's work.

But authors started paying attention to the territorial dimension in the early 2000s with the development of industrial districts (BECATTINI, 1991), and then of milieus (MAILLAT, 1995; CAMAGNI and MAILLAT, 2006) and clusters (PORTER, 2003), founded on a much more micro-based approach to development, and on localized groups of firms and/or laboratories, often formed around joint or complementary activities. Thus, a highly systemic approach to local development imposed itself which was essentially based on the analysis of relations of production or innovation, a recent variant of which has been the research conducted in geography of innovation or evolutionary geography. It has given rise to different local policies, related, in particular, to clusters or localized production systems.

The slow emergence of the concept of territorial development is due to the fact that that of territory was initially met with some resistance and only gradually imposed itself. Beyond its multi-semantic nature it has now been adopted above all because it refers to organized relationships, and to specific groups or populations, which relate to one another through common projects (SACK, 1986). Territories are not mere geographical entities, but also collective productions resulting from the actions of a human group, with its citizens, its governance mechanisms and its organization. They are in continuous, long-term construction and develop through oppositions and compromises between local and external actors. They are characterized by a history and preoccupations rooted in local cultures and habits, a perceived sense of belonging, as well as modes of political authorities and specific organization and functioning rules.

Definition

As a result, the concept of territorial development, which primarily concerns relatively small geographical areas, has imposed itself by successive enrichments. The validity of this concept, which extends to territories with limited industrial functions, implies three important differences from analyses of regional development (rather macro-economic), and local development (mostly related to production):

- 1) Territorial development processes cannot be reduced to the actions of productive actors and institutions in charge of development policies, but extend to other territorial stakeholders: local or territorial authorities, decentralised State services, consular organizations, local governance mechanisms (Regional Natural Parks, etc.) and associations;

- 2) Cooperation and social construction processes must be examined and taken into account in the analysis of development dynamics. Far from being anecdotal, new social and institutional practices are at the heart of territorial innovation processes, and in this regard, the desire of local actors' networks to choose and develop their own development model, be it through collective actions or clear opposition to the intentions of States or large corporations.;

- 3) Contemporary issues related to land scarcity and competition, soil degradation and *land grabbing* by States in search of fertile land, have placed the question of land use at the heart of development processes and projects. Thus, the introduction of questions pertaining to land use and to the choice of land planning methods has contributed to reconciling *land-use* analysis with regional science approaches.

The last point deserves some particular comments, because it is not so common to integrate it into local or territorial development analyses. Nevertheless, it occupies a crucial place today, for two reasons. The first one is related to the (rather) small size of the territories we are dealing with. At this level, any choice of development, or even any type of activity implies a strong impact and a huge choice in terms of land uses. So, to decide of a zone of tourist activity is going to impact the rival land use of industrial activities or waste treatment: because there cannot be two activities on the same place, but also because the negative externalities of these activities could impact negatively the tourist offer. The second one is bound to the increasing scarcity of lands in the world, be there soils for the agricultural production or for the heavy metals, for example. This situation contrast strongly with periods where land availability seemed so common as it was not necessary to include it as a core in the models and development problems.

The foregrounding of land use issues and of the mosaic of stakeholders in the territories calls for a broadening of the thematic scope. Indeed, while it is common to focus attention on production relations when the question of development is raised, the methods used to manage the latter, beyond the analysis of local public policies, are generally given limited attention. It has become important to analyse the modes of participation of populations in decision-making processes concerning development projects and their implementation, as well as the opposition they may generate, to be able to take into account and analyse the two drivers of territorial development: production but also governance.

Proximity relations (TORRE & RALLET, 2005; BOSCHMA, 2005)
We consider the distinction between two main categories of proximity: geographical proximity and organized proximity. They 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.

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 three ways: n terms of the morphological characteristics of the spaces in which activities take place. In terms of the availability of transport infrastructure. In terms of the financial resources of the individuals who use these transport infrastructures.
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. It 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.
Sought for geographical proximity refers to the quest, by some actors, for geographical proximity to other economic or social actors, to natural or artificial resources, to places or technical objects. It can be permanent or temporary: The need for permanent geographical proximity is met by being in what is

considered an appropriate location or by moving and settling in a place deemed more likely to help the actors concerned meet their needs or conduct certain activities. The need for temporary geographical proximity can be fulfilled without having to settle in a different place, but by travelling and undertaking occasional trips of a limited duration.
Unwanted geographical proximity corresponds to cases of actors finding themselves in situations of unwanted geographical proximity to people, activities, technical objects or places, without being able to move and change locations. Geographical proximity is the source of negative externalities, which correspond to the disadvantages of being in proximity to objects of concern, such as a polluted site or a waste incineration plant for example. It is also the case when firms find themselves in proximity to competitors that seek to appropriate part of their knowledge through industrial espionage for instance, or by hiring their best engineers away from them.

Organized proximity
Organized proximity too is a potential that can be activated or mobilized. It refers to the different ways of being close to other actors, regardless of the degree of geographical proximity between individuals. 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 a certain usefulness
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 operate in; in this case they share a 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.
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. 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). .

Temporary geographical proximity
Temporary geographical proximity 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.
Space matters, but in a way 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 like trade shows, conferences and exhibitions or common “platforms” of project teams.

I.2. Productive relations and different forms of proximity. The emphasis placed on localized production systems and technological innovation

The definition of development cannot be separated from that of production, whether it be in the framework of classic theories or of studies on the development of emerging nations. The literature on local or territorial development processes is no exception and focuses on productive activities and on their territorial embeddedness (RYCHEN and ZIMMERMANN, 2008). The literature considers production as the main driver of development, and places emphasis on two central dimensions: technological innovation and the systemic nature of local relationships. Thus, innovation production is above all a question of networks and technology, as is apparent in the analysis of proximity relations, rarely interested in development issues but focused on production and innovation issues.

Localized Productive Systems

For a long time, local development analysis was largely confused with that of local production systems. The first phase saw the emergence of the mythology around Marshall's industrial districts (MARSHALL, 1919), rediscovered in Italy in the 1970s (BRUSCO, 1982). Industrial districts are ensembles of people and enterprises located in the same geographic area and which, despite their (very) small size are competitive on the global market. They are also characterized by a huge social proximity between their members, who often share the same culture and values. One such industrial textile district is the Prato textile districts, emblematic of a form of 'bottom-up' development. Just like milieus and Localized Production Systems, they are characterized by low-technology contents and by a more generic model centred on formal relations and exchanges, in which the production of knowledge is essential to territorial development (CAMAGNI and MAILLAT, 2006). PORTER (1985) subsequently imposed the canonical term 'cluster', which encompasses the idea of an ensemble of firms and laboratories working in related industries, in the same geographic area, and whose know-how and technology related interactions enable them to increase performance, competitiveness and the level of innovation. In more recent avatars, such as business ecosystems, firms are embedded in co-evolution and cooperation networks (BRANDENBURGER and NALEBUFF, 1996) characterized by a large variety of stakeholders (companies, laboratories, various centres) sometimes located in proximity to one another. Finally, third places (OLDENBURG, 1991) combine expert and lay knowledge and are based on innovative relations that are not necessarily *high-tech*. show-rooms, *co-working spaces*, *fab-labs*, *living labs*, business centres, incubators, resource and training centres... represent means of meeting others, of exchanging, interacting, working together, and even of developing projects or building technical objects.

Technological innovation and its impacts

Innovation is generally considered to be at the origin of development, so much so that it is often seen as an indicator of dynamism in territories. SCHUMPETER's founding intuition (1934) about a form of innovation deconstructing productive routines and giving rise to phenomena of creative destruction, has been given pride of place again by evolutionary economists, who show how the transformation of knowledge and inventions into innovations leads to technological trajectories (NELSON and WINTER, 1982), resulting from the strong opportunities created by combinations of technical and economic factors. Innovations are diffused from one company or sector to another, and then become incremental and routine and in so doing generate lock-in effects. According to transition theorists (GEELS, 2002) departure from this routine model occurs when a shift is made to a new socio-technical regime; a shift generated by one or more radical innovations, which incubate and develop in niches in which the actors can be trained in the new technology

and a more stable and promising socio-technical alternative can emerge (VAN DE POEL, 2000). This analysis applies essentially to strong innovations, or breakthroughs, brought about by a so-called socio-technical paradigm but which proves to be essentially technological in nature. And yet, an important number of territorial innovations are clearly 1) modest or frugal; 2) above all social and organisational in nature.

The position of the proximity school of thought.

The proximity approach does not really deal the issue of development. Its main concern is about the set of preconditions (geographical and organized proximity) that lubricate the mechanisms fostering regional development but it usually does not bring any detailed explanations of the functioning of such mechanisms. Indeed, most of the literature deals with innovation and concerns the matching of different types of patents or techniques, research cooperation to publications, self-stated innovations, etc. as reported for example in the rich literature on relatedness, which forgot a large part of the geographical content of proximity analysis (RALLET and TORRE, 2017). In the end, it pays little attention to the geographical dimension, and even less to its impact in terms of development. As for the research on producer networks, it generally focuses essentially on the cluster dimension: the development dimension is often mentioned implicitly, but only in relation to enterprises or to their interactions with laboratories and public authorities (GIULIANI and BELL, 2005). CRESCENZI et al. 2016).

There are, however, three notable exceptions to this general trend. The first concerns the analyses that place emphasis on territorial resources and explicitly raise the question of what type of proximity must be exploited or created to help undercover, exploit and sell local resources, which may otherwise remain in a latent state and therefore not contribute to the development of the territory. The second is related to the researches that focuses on the territorial embeddedness of firms, and has been key in understanding how the desire to develop proximity relations with other actors can lead firms to remain located in a particular territory, or on the contrary to do without, when other types of proximity or cost reductions are necessary; thus it helps shed light on processes of development and of relocalization (RYCHEN and ZIMMERMANN, 2005). The last exception concerns studies conducted in the field of evolutionary geography, which describe a local system developing on the basis of local relations of all kinds within local clusters and based above all on innovation dynamics (FRENKEN and BOSCHMA, 2007).

I.3 Governance issues and proximity relations. The role of stakeholders

Development involves many dimensions other than production alone and is partly conditioned by mental and social change among populations, or in institutional structures (PERROUX, 1950). For territories to be able to control their future, it is in their interest to initiate their own development projects. Thus, territorial development cannot be understood independently of the processes of government and of governance of public affairs.

From governance to territorial governance

To govern is to make decisions, to arbitrate disputes and conflicts, manage modes and processes of production, and contribute to the regulation of economic and social activities. For a long time, development was shaped by government, with the principle of a top-down and binding hierarchy, conditioned by laws

and public policies (BASLE, 2010). The concept of governance then gradually emerged; though sometimes considered polysemic and vague, it refers to more flexible forms of power. This evolution echoes the movement towards territorial differentiation (and autonomization) emanating from different sections of society, the increasing number of stakeholders (PIERRE, 2000) and the demands for democracy, beyond elective representation alone.

The “good governance", advocated by the World Bank or the IMF, is highly normative. But the term also applies to the coordination of actors, social groups and institutions for which good governance must help to achieve common goals and facilitate participation in decision-making, and in so doing to shift from the pyramidal or hierarchical approach to government towards more flexible forms of governance, closer to people and organisations. These forms of governance apply, for example, to networks of economic and social actors who wish to collaborate and exchange expertise in order to generate innovation (KOOIMAN 2000), the involvement of public-private partnerships in the definition of development objectives (WETTENHAL, 2003), the participation of various organisations (associations, companies, NGOs, etc.) in the drafting of laws, rules and regulations (PIERRE, 2000), or mechanisms facilitating the involvement of increasingly better informed and organised stakeholders in decision-making processes. It is this form of governance we are referring to here. It can be defined as a process of coordination between different types of stakeholders or actors (actors in the production sector, associations, individuals, public authorities or local authorities), with asymmetric resources, and who meet around issues concerning their territory and contribute, with the help of appropriate tools and structures, to the elaboration- collaborative or conflictual- of common projects for the development of territories (TORRE and TRAVERSAC, 2011).

Conflict mechanisms

From a normative perspective, land-use conflicts are seen as obstacles to "good" governance. We, however, consider that they participate in the governance process and play a role in the acceptance or rejection of decisions made by different categories of actors such as, for example, public authorities or large corporations, and are an expression of resistance and opposition to certain decisions that leave part of the local population dissatisfied (DARLY & TORRE, 2013). Alongside cooperation, they constitute a way of initiating discussions on the issues and paths of territorial development and of influencing decisions by taking part in processes underway from which one had been excluded (DOWDING et al., 2000) or by changing their technical processes, or even more radically by refusing them. Some new developments or propositions of innovations - infrastructures, land use choices, governance structures – are met with more or less important opposition from the various actors. During the conflict, innovations emerge; they may be social and organizational (constitution of new groups of actors), institutional (new norms or regulations) or technical (new solutions). Parts of the proposals are rejected, while others are amended and improved through this collective learning process.

Thus, territorial governance consists of constant interaction between forces that push for cooperation and others for conflict. Local or decentralized public authorities, private companies, more rarely associations, individuals etc. propose innovations, which are examined and tested by the other actors, through trial and error (TORRE and TRAVERSAC, 2011). When it is relatively well received, an innovative project is subject to some criticism or minor modifications. When it is perceived as contrary to the interests or well-being of part of the population, it causes blockages: individuals or associations then try to oppose its

implementation, by legal or social means (demonstrations, media interventions...) (TORRE et al., 2015). Thus, when a new project is proposed, one of three scenarios can occur: rejection, modification of the technical dimensions or organizational structures in charge of the project, or acceptance of the project such as it was initially proposed.

The position of the proximity school of thought

This issue has been addressed in a few studies, which show that cooperative and conflictual relations play an important role in territorial development processes (SABIR et al., 2017). The originality of these works lies in their emphasizing the relation between questions of geographical proximity – whether sought for or unwanted – and land occupation issues. They identify important differences in how the various stakeholders relate to the territory; stakeholders who either seek geographical proximity with certain actors (certain types of neighbours, of social categories, but also of places such as a city or remarkable landscapes) or, on the contrary, have to endure the negative effects of unwanted neighbourhood (congestion, ghettos, neighbourhood conflicts, but also proximity with a classified facility or polluting factory). The authors of these studies also discuss the phenomenon of inequality in space - which relates to the physical characteristics of territories - as in the case of actors located upstream or downstream of a river (MAGSI and TORRE, 2015).

In the case of unwanted geographical proximity, these authors analyse land use segregation and conflicts as constraints that can be alleviated by mobilising the different types of organized proximity, which operate in a more classic manner, except for the fact that it applies to different categories of stakeholders. These studies also argue that the mitigating virtues of organised proximity can contribute to re-creating relations between actors with conflicting opinions or projects. However, a distinction is apparent between relations of generalized organised proximity, in cases when cooperation between the actors prevails, and relations of intra-group organised proximity, which can develop within groups of actors with opposing interests through the logic of belonging or similarity (TORRE, 2014).

II. Territorial development mechanisms and their foundations in terms of proximity

On the basis of the above elements, we can describe the processes of territorial development and their foundations in terms of proximity, whether it be sought for or unwanted geographical or organized proximity, and whether it rests on a logic of belonging or on a logic of similarity. The analysis of their evolution is based on the definition of two key categories of territorial innovations, as well as on a presentation of the organisation of (non-) development processes, according to three main possible scenarios: consultation/cooperation, conflicts/competition, spatial exit/relocalization.

II.1 The two main categories of territorial innovations

Everything points towards moving beyond the technological vision of innovation. Indeed, many examples testify to a high capacity for creativity among local actors, including in peripheral territories or those characterized by activities of low technological intensity …. Modest or frugal innovations flourish and are often based on the development and optimisation of, or specification of local resources, while accounting for a large share of local employment and activities. (MOULAERT et al., 2013).

These examples illustrate the need for a broader definition of innovation referring to Schumpeter's original understanding of the term. Any novelty that introduces a change in previous operating modes can be considered an innovation. Let us note the distinction between novelty and innovation, with the latter referring to major technological changes and breakthroughs, which affect many sectors or society as a whole, whereas novelties are primarily small-volume changes, or adjustments to changes made elsewhere (LORETO et al., 2017). We focus here on technical or technological innovations, such as new industrial production methods or new products, but also organisational (LORENZ and VALEYRE, 2005), social and institutional novelties or innovations (HARGRAVE and Van de VEN, 2006). One could also related this distinction to the separation between radical and incremental innovations (DEWAR and DUTTON, 1986). Thus, the knowledge produced by society and its territorial actors is therefore involved in the production of innovations, besides that generated by scientists, engineers, or researchers.

Territorial innovations (MORGAN, 2004), which include all these categories, imply no value judgment. They are new developments in a territory, which can either be produced by different components of the economic and social system, in response to exogenous or endogenous impacts or local initiatives or are imported and imitate developments made elsewhere. Each novelty is likely to contribute to the development of a territory. Whether they are judged positively by some or unfavourably by others (e.g. a nuclear power plant or a prison), what matters is the trajectory that they produce. Figure 1 illustrates the parallel functioning of these different types of innovation, according to whether they have been previously tested by the market or by society.

Territorial innovations	
Technological and organizational innovations	**Social and institutional innovations**
Origin : invention	Origin : new project
Produced through cooperation or competition	Produced through consultation or conflict
Acceptance (or rejection) by the market	Acceptance (or rejection) by society

Figure 1: Production of the different categories of territorial innovations

Figure 1 breaks down these innovations into two categories. Cooperative or concerted innovations are the result of cooperative processes, collective projects, and joint developments, which produce new forms of relationships and collective action, on the one hand, and of the acceptance of **external** proposals of innovation, on the other. Innovations brought about by conflict or competition emerge in reaction to initiatives taken by public or private, local, or external actors, and which lead to processes whereby different solutions are competing with one another, or to reactions and oppositions which eventually lead to an acceptable solution.

The first type of innovations relies on the implementation of relations of cooperation, and sometimes trust, between different categories of stakeholders or enterprises, or on the acceptance of exogenous decisions. These are technical, institutional, or social innovations. The second type of innovations result from and accompany conflictual and competitive relationships. They can result from competitive relations because a large share of technological innovations involves processes of competition between enterprises and/or laboratories. And they can result from conflicts because opposition to public or private initiatives also gives rise to technological (new production or recycling processes), organisational (new round tables or

restructuring of pressure groups), institutional (new rules of public debate, organisation of negotiation groups, etc.) and social innovations (changes in power relations between opposition groups, etc.). Not all novelties are well received or appropriate. They can be met with resistance, or even conflicts, and can be rejected by all or some local actors.

To evaluate the impact of novelties, particularly in terms of innovation and territorial development, we build on HIRSCHMAN's three-option model *exit, voice and loyalty* (1970), which proposes an explanation of the methods of cooperation, opposition and defections within a collective of actors. Originally developed to account for consumer reactions to a deterioration in the quality of a company's production, this approach can be applied to other situations, such as territorial development. Extending the solutions presented by HIRSCHMAN to the case of territorial relations, be it production relations or governance issues, reveals that actors can adopt three main types of behaviour, which all correspond to (non-) development trajectories (TORRE, 2014). Let us examine these paths to territorial development, by giving them equal importance (in the initial approach, loyalty is often introduced as a mere additional possibility).

Exit – Voice – Loyalty, the original model of HIRSCHMAN

One of the crucial points of the model of Hirschman is the recognition of the political expressions in the field of economy. Initially developed to handle relations between firms and their customers, the Exit-Voice-Loyalty model of HIRSCHMAN (1970) takes into account the possibility of exit of the game of one or several actors, but confronts it with an additional possibility; the voicing of opinions. Originally, Hirschman tried to analyze consumer reactions in front of a quality deterioration of any product and discussed mainly two solutions: Exit, either abandonment of the product, and Voice, or voicing of opinions, to indicate the dissatisfactions. Numerous approaches support that a rational actor will give up the lower-quality product for other one of the same utility, offered on the market. Yet Hirschman noticed that this principle does not still apply; the dissatisfied customer of a usually consumed product can try to raise the dissatisfaction with the aim of an improvement of the situation. He thus questioned the uniqueness of the solution Exit and shows that Voice could also show itself applicable and profitable. The introduction of the variable Loyalty marks the passage to the tripod Exit-Voice-Loyalty. Initially synonym for attachment of the consumer for a good or a company, Loyalty is introduced most of the time as an additional option into the interpretation of the Hirschman's model.

II.2 Relationships of proximity in governance processes

From Hirschman's perspective, *loyalty* consists in accepting a decision made by others and in "playing the game" silently or in co-constructing territorial innovation in a cooperative fashion. Loyalty is the participation in on-going processes and projects, the absence of public opposition to the decision or the ability to wait for it to be sanctioned through elections later. It corresponds to the approval of a development project, or its implementation following a consultation process that has been successful or even in which opponents give up and prefer to bow to the majority decision or to accept that made by the most powerful organizations. Its mechanics rests on what we consider to be *generalized* relations of organized proximity, because the whole community adheres to the same development project. These relations are based on the existence of a sense of belonging to production networks, interest groups, governance structures, associations... but also on a sense of similarity, and a sense of mentally belonging to certain structures, or

adhering to common values and to a culture linked to a common origin. As far as geographical proximity is concerned, it is, in this case, sought for by local actors to collaborate or work together.

The *voice* option consists of opposing a decision, legally or otherwise, and challenging it publicly. Conflicts are an expression of the *voice* option, when all or part of the population is dissatisfied with decisions or projects, feels it has not been given due consideration during negotiations or is poorly represented in governance structures. *Voice* can be individual, in the case of small-scale conflicts, or collective when a larger number of actors are concerned and rally against large-scale projects or aimed at changing territorial governance methods (DOWDING et al., 2000). The opposition is then often directed at the public authorities and is expressed in order to challenge decisions they have made and influence the governance process (MAGSI and TORRE, 2014). Conflicts and segregation processes are related to situations of unwanted geographical proximity experienced by local actors. In both cases, the organized proximity relations between actors contribute to the formation of opposition groups and tend to grow stronger during conflict phases, whether through repeated interactions between members (logic of belonging), their adherence to common internal values such as the belief in the need for employment growth through the setting up of a factory, or in the need to fight against sources of diffuse pollution (logic of similarity). Obviously, conflicts and segregation are the result of unwanted geographical proximity.

The *exit* option corresponds to TIEBOUT'S vote with the feet' model (1956) or to leaving the game, and more specifically the territory. This option of non-development is not always feasible, due, for example, to costs or land prices (it is difficult to get a good price for a piece of land that is polluted or is close to a major source of nuisance) or to the absence of opportunity to move elsewhere. We call this option that of "spatial *exit*", which concerns territories affected by desertification, lifelessness, or economic and institutional isolation, such as some rural or peripheral areas, or even war zones in which it seems impossible to enforce any regulation of any kind and from which therefore residents often take exile. In such situations, relations of organized proximity between local actors tend to disintegrate or prove insufficiently strong to contain rising tensions. The ties of belonging and similarity become looser and weaker or are re-formed on different territorial scales (case of Diasporas). And geographical proximity then no longer exists.

Thus, the oft-described situation of cooperation, in which the dynamics of projects rest on the shared wishes of the parties involved (cooperation/*loyalty*), is met with dynamics of opposition and separation (conflict/*voice*, segregation). These are conflicting processes, which give rise to new paths of development thanks to the adjustments made to the initial plans proposed by private or public actors. Finally, the inability to generate or maintain solidarity and exchanges - even conflictual ones - can cause some of the actors to leave the territory (spatial *exit*), a phenomenon which often coincides with the appearance of processes of decline and abandonment. Non-development then takes over.

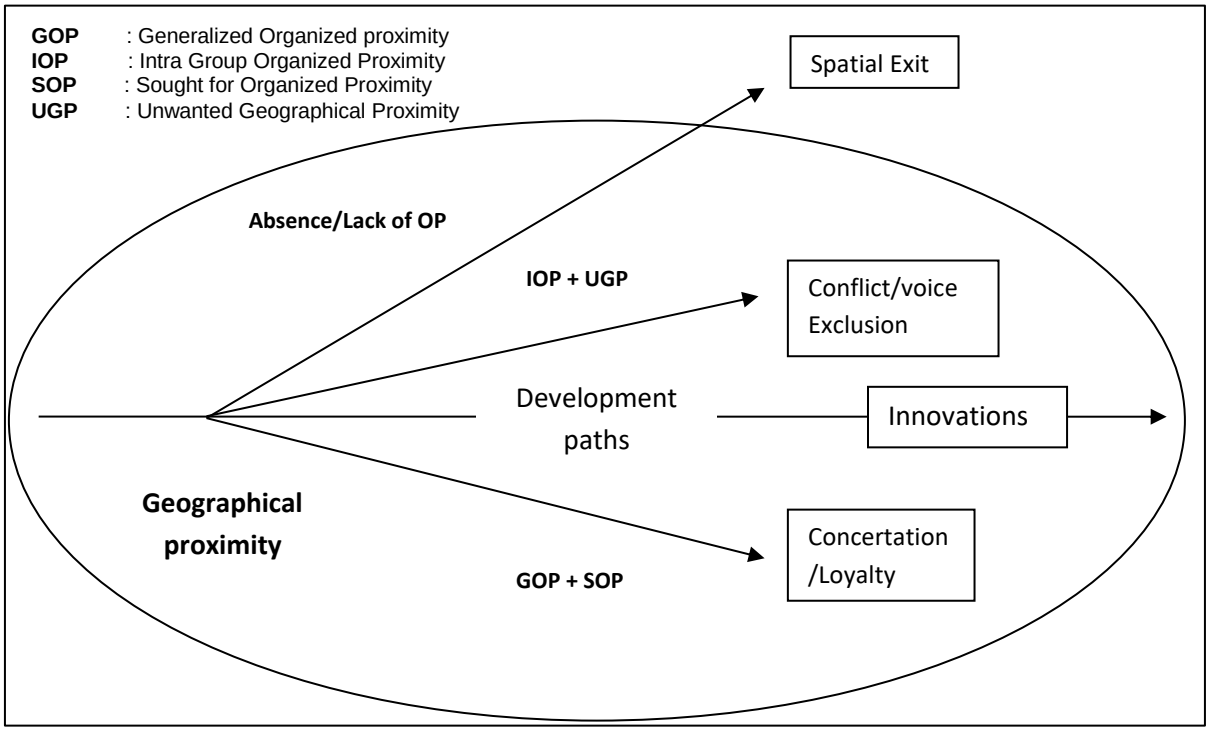

Figure 2: Governance and proximity: the two models of production of territorial innovations

Figure 2 provides a schematic representation of these three main types of situations in a context of governance, by establishing the link between governance processes and categories of proximity. For the sake of simplicity, the territory represented in the figure is one in which stakeholders are in a situation of geographical proximity to one another, as in the case of a cluster (TORRE, 2014). Novelties may result from internal processes or be imported from external actors; they can be modest or important; innovations will be qualified as such at the end of the process, according to how society receives them. The solutions, which correspond to different ideal-types of behaviour among the actors, are conditioned by cooperative and conflict mechanisms or spatial exit processes. The resulting development paths are not mutually exclusive and generally co-exist in time, in response to different innovations. However, some innovations sometimes take the upper hand and take on a more or less collaborative, sluggish, or conflictual "local character".

The dynamics of the projects related to situations of cooperation rests on the conjunction of the wills of the stakeholders (concertation/loyalty), leading to the production of cooperative innovations. In the case of dynamics of opposition and separation (conflicts/voice, exclusion) the absence of general membership to the project dominates, by multiplying the opposite options and the hopes of reconfigurations. The conflicting processes then create conflicting innovations and new ways of development further to the revision of the initial plans of private or public actors. The mechanisms of exclusion divide particular groups and can lead to a spatial segregation contributing to the division of territories. Finally, powerlessness to generate or to maintain solidarities and exchanges - be were conflicting - can cause the departure of the territory of a part of the actors (spatial exit), and the appearance of process of languor and of land abandonment. Non development then gets the upper hand, without production of innovations.

In each case, the final solution depends on the degree of interaction between the two main categories of proximity (geographical and organized): the situation of loyalty corresponds to a scenario in which both geographical and organized proximity are mobilized; the *voice* situation is characterized by some degree of interaction between both types of proximity; and spatial *exit* is a situation in which actors are in complete disjunction with one another.

II.3. Proximity relations in production processes

A similar exercise consists in applying the logic of Hirschman's tripod to productive behaviour, and to complete, by imitation, the link between relations of proximity and territorial development processes. Again, the basic logic rests on the three main categories of proximity relations. A combination of generalised organised proximity and sought for geographical proximity corresponds, classically, to relations of cooperation between actors, as in as joint work, alliances, technology networks, the creation of cooperatives or joint ventures... This is the case of "successful" clusters, whose members participate in a common project, often with the support of local structures such as foundations or competitiveness clusters' governance bodies (TORRE, 2014). Intra-group organised proximity corresponds to situations in which groups of actors compete with one another, including on the labour market, and form networks of alliances or of actors who share similar company values, for example. Finally, the absence of organised proximity is related to processes of company relocation which lead to the severing of local ties and the disappearance of geographical proximity: it does not exclude the existence or recomposition of other relations of geographical and organised proximities in other places.

Cooperation between enterprises is a situation characterized by the existence of generalized organised proximity and desired geographical proximity between actors, particularly in cases when the latter interact face to face. It corresponds primarily to a strategy of competence and knowledge sharing or exchange aimed at making productive gains or at producing common products (networks, alliances, agreements, joint ventures...). Cooperation generally rests on repeated interactions between the actors and a mutual and well-understood distrust, validated by contracts, formal agreements, or tacit relations (logic of belonging). It can also emerge from the existence of trust relations between actors who belong to the same community for example (logic of similarity), or from repeated and successful interactions, as in efficient productive systems, a technopole or a district for example.

Competitive relations, one of the key drivers of capitalism, are not always exacerbated at the local productive level, where oligopolistic and monopolistic situations are often dominant, except in the case of service and trade activities, where competition rages between different brands or traders. Organised proximity relations only partially exist and are 'intra-group' by nature (within a company, a network of firms, a trade union, etc.) and are based on the two logics of belonging and similarity. Competition is imposed by what characterises geographical, within the same local system. However, in localized systems, companies often combine cooperative and competitive, or 'coopetitive' relationships (BRANDENBURGER and NALEBUFF, 1996), and tend to develop behaviours or strategies of alliance or opposition depending on the functions concerned (R&D, production, commercialization, etc.).

Relocation, the industrial expression of the process of exiting the territory, marks the severing of relations of organized proximity organized at the local level, and therefore the elimination of geographical proximity through territorial disembeddedness (RYCHEN and ZIMMERMANN, 2005). They may consist in an enterprise moving all or part of its activities (the production facility, or one section of the facility dedicated to a specific stage of the manufacturing or industrial process or a service) to another location. For a long time limited to sub-national moves, their geographical scope has expanded with globalization, and now often consist in moving to other countries. Whether they imply a complete cessation of activity or moving materials or products from one location to another in the context of an international division of international processes, they cause a net loss of jobs in the territory of origin, particularly for already weakened or specialised employment catchment areas, and thus, accentuate the precariousness of the firm-territory nexus and the disconnection of local industrial relations. Relations of organized proximity with partners, buyers or subcontractors are then broken off or weakened, and new relations are formed at different spatial scales, in other countries or other regions.

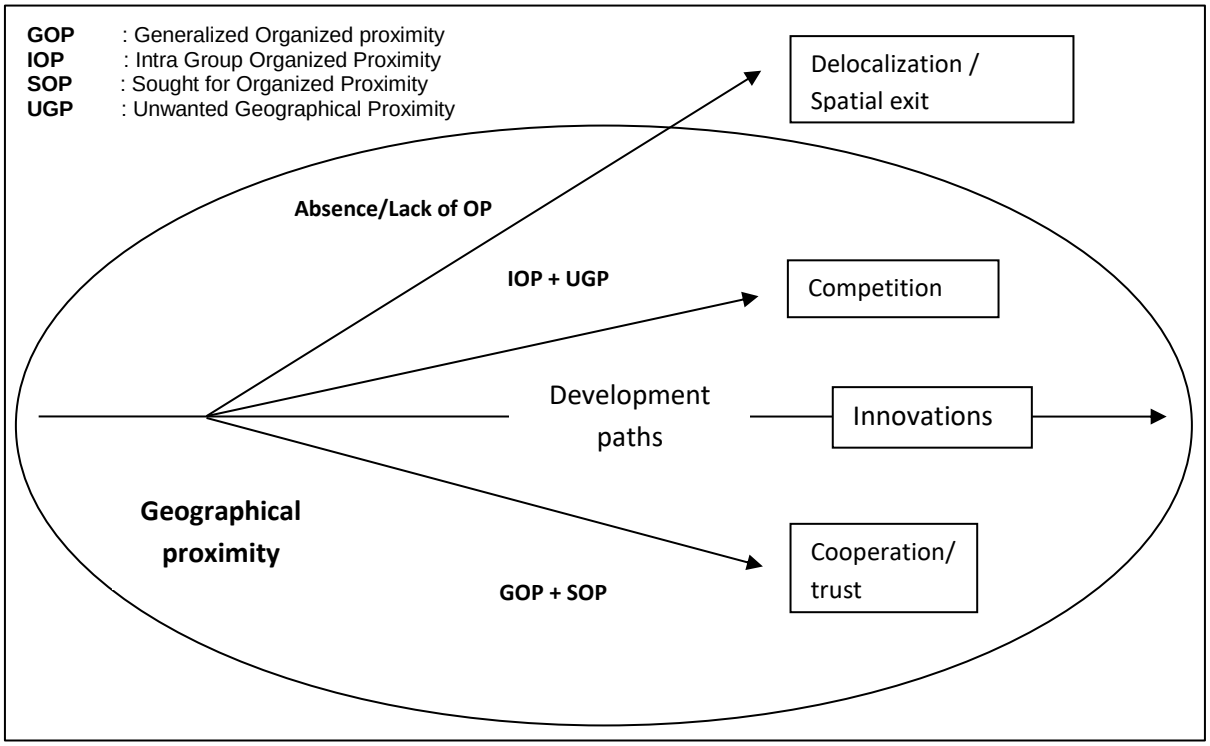

Figure 3: Production and proximity: the three models of production of territorial innovations

Figure 3 illustrates the implementation of these three options and their relation with the proximity dimensions in the context of production processes. It presents the various development paths opened by modest or major, technological, and/or organizational innovations, resulting from internally developed or imported processes; the market that will qualify them. Here again, these different paths are by no means mutually exclusive, and can even co-exist, as in the example of coopetition. However, the predominance of one or the other option will determine the spirit of a territory: i.e. competitive (a commercial zone with different brands), cooperative (a cluster of companies), or even frankly depressed (an industrial zone in which factories are shutting down). The cooperation solution is characterized by a situation in which both

geographical and organized proximities are mobilized, competition is characterized by some degree of interference between the two types of proximity, and exit is a situation in which there is disjunction between the two.

Conclusion

It is time to reconcile territorial development and proximity approaches, by analysing the role played by the latter in development processes. We have attempted here to examine this relation, on the basis of a precise definition of territorial development and of proximity relations. We then examined the two drivers of territorial development - relations of production and relations of governance - in view of the contributions of the still rare analyses in terms of proximity. Finally, we presented a framework for studying the different types of proximity and their role in the genesis of cooperative and conflict-based innovations, and therefore the possible development paths. With reference to Hirschman's tripod, we have defined three paths to (non) development, which correspond to the pairs concertation / cooperation, conflicts / competition, and exit / relocation, respectively adapted to the processes of governance or production, before ending with a dynamic presentation of the territorial development paths and their evolution over time, in connection with proximity relations and territorial innovations.

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