

DECONSTRUCTING TERRITORIAL DEVELOPMENT. TOWARDS A NEW APPROACH

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Abstract

The article analyzes how the new economic geographies have profoundly changed the way geographers think about the world. In the intentions of the author, similar issues must be addressed in an epistemological way, seeking a global understanding of the territories that re-establish a balance between economic and territorial processes, without reducing the latter to the former. The arguments expressed follow an explicitly systemic perspective, in particular that of complex systems.

Key words: New vision of geography. Epistemology related to geography.

1. Introduction

The profound changes in the world economy in the last few decades have deeply changed the way geographers think about the world, bringing ‘new’ economic geographies to the forefront: in the Third World, as a consequence of the displacement of considerable segments of production, as well as in the peripheries of North America and Western Europe. Alongside these significant shifts, the developed world has seen the emergence of numerous new industrial spaces, the expression of both the consolidation of high tech areas (such as Silicon Valley or Route 128), and the revitalisation of areas with a manufacturing tradition (Third Italy, Denmark, Baden-Württemberg). The rise of the ‘world cities’, around which intense interdisciplinary debate has developed, is part of this process.

These phenomena, accompanied by the weakening of the old industrial cores which had expressed and sustained the mass production system, cannot be isolated from a dual and dialectical process, which Ann Markusen defines as the paradox of “sticky places within slippery spaces”: on the one hand, the hypermobility of financial capital and technology; on the other hand, the strength of the clustering (agglomeration) of industries and companies. This is not the place to debate whether this is not a paradox but a real phenomenon. The duality between deterritorialising and territorialising forces is a question that the economic sciences and geography have examined at length: significant contributions have been made recently by geographers, and also by political economists, sociologists and international business scholars (Massey, 1999; Stiglitz, 2011; Sanguin, 2014; Velz, 2017;, to cite just a few)

The debate about the status of territory and its relationship with economic process has seen two main contrasting discourses that deal with the broader issue of

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globalisation. According to the first, the processes in question are echoed in an increasingly placeless economy, where the economic development process “is passing from territorial institutions such as states to deterritorialised institutions such as intrafirm international hierarchies” that are said to be gaining on territorial barriers, specificity, and frictions. In the second case, instead, the fact is stressed that economic development is combined with continuing specificity in development patterns. Accordingly, faced with the liberalisation of both internal and cross-border markets and of growing globalization of asset-exploiting activities of multinational enterprises, the further concentration of economic activities in dynamic agglomerative regions represents a fundamental feature of the new world economic map, against which regional authorities and practitioners must measure themselves (Dicken, 2011).

This new wave of geographical imagination about the links that connect space, places and economic processes has brought to the forefront new concepts, which have been rapidly increasing their theoretical and empirical fortune. It is no chance, in fact, that one of the fundamental terms in contemporary economic and social research is *local development*, a synthetic concept that underlies a multitude of other terms around which there has been heated debate, such as industrial districts, industrial clusters, learning regions, innovative milieu, local production systems, ‘regional motors’ and so on. The concept of local development implies something that is both truly complex and at the same time fuzzy: against the background of growing awareness of the incapacity of the traditional models of analysis of regional development, the aim is to give meaning to the central role in contemporary development processes of an intermediate entity between the actor (the company, in particular) and the system as a whole, with respect to which the local system expresses both a space for co-operation between actors and their embeddedness in a given territorial context, from which they draw specific competitive and not easily reproducible resources and solutions.

Another concept that grew up to get a large critical mass in contemporary debate is “territorial competitiveness”, with its various scalar understandings – from the local and the urban to the regional, till the national scale. The idea that territories compete each with the others has matched with the expectations of policy makers and local administrators, establishing a broad corpus of discourses and praxis where territories are more and more treated like economic agents, outshining often their social, cultural and political dimensions (Krugman, 1995. See also Asheim, Boschma and Cooke, 2011; Conti and Giaccaria, 2009)). As a consequence, the debate about territorial competitiveness has been extremely various in positions and perspectives, from quite positive account of the process to the extreme denial of any theoretical importance, through a broad range of more cautious interpretations and caveat.

Nevertheless, despite the good fortune these concepts met among policy makers and practitioners, they grew up “too fast too furious”, through a huge range of interpretations, perspectives and judgements, which are quite difficult to come together into a consistent framework. Moreover, concepts like “territorial competitiveness” and “local development” show many ambiguities that cannot be solved without a comprehensive and systematic reflection on the conceptual basis they stand on. For instance, most of the contemporary discourses in economic geography draws on a sort of personalisation and reification of territory and place, which are assumed to be person-like collective agents, able to express common representations and therefore to compete in some sort of markets. Also all the literature focusing on cognitive interpretation of territorial processes – like the innovative milieu stream or the learning

region approach – ends out setting a holistic comprehension of territories which is highly problematic: what about dissonant voices in the milieu? Are they just noise²?

In my perspective, similar questions must be addressed in an epistemological way, looking for a comprehensive understanding of territories that re-establish a balance between economic and territorial processes, without reducing the latter to the former. The arguments expressed here follow an explicitly systemic perspective, in particular that of complex systems. One condition of complexity – and this needs to be recalled here, even if briefly – lies in the acknowledgement that reality cannot be reduced to the methods of simplification typical of orthodox modern economic and social science, where reality was broken down into simple components, easier to study and understand. With the theories of complexity, attention is now shifted to more complex mechanisms of interaction between elements. In particular, it is maintained that the unpredictability of the system stems from precisely the fact that the sub-systems interact with each other through different types of relations and that they cannot therefore be analysed separately.

2. A short narrative about complexity

In this contribution, I would like to focus on how territories can be conceptualised in a systemic perspective and to exemplify how systemic territorial theories can be applied to address some of the open issues of the contemporary debate in economic geography, specifically with reference to the concept of “territorial competition”. The reference here is to the mechanism of *autopoiesis*, through which it is possible to characterise the organisation of a system, as it has been elaborated by the Chilean scholars Varela and Maturana. The starting point is the clear distinction between heteronomous and autonomous systems: while the former are characterised by an evolution according to the structure of the external world, autonomous systems are, instead, endowed with organisational closure, where the external world acts purely as a factor of disturbance. They thus appear independent of the forms of the outside world, with the exception of the flows that assume importance for the self-reproduction and survival of the system. In a system characterised by organisational closure, network interconnection between its components is the basis of the fundamental property of autonomy, which defines the closure and cohesion of the system with respect to the environment. The local system will thus be distinguished on the basis of its own rules of operation that, instead of being dictated from the outside, represent invariants through which the system reproduces its own autonomy in its constant openness to the environment. These rules are dictated by the way in which the network of its constituent relations is represented internally, by a rather complex structuring of economic, political, cultural, social relations.

The key concepts are *organisation* and *structure*. Although both concepts are of a relational nature, the sense is profoundly different. The organisation is, in fact, given by the ensemble of relations between the elements of the system that makes the system what it is and not something else. The structure is, instead, given by the material

² The application of the concept of “noise” from cybernetics and complexity theories to social theories is actually a quite disturbing metaphor, even if there is something a positive evaluation of noise itself: noise is necessary, but still powerless and functional to the reproduction of dominant relationships.

and historic qualities of these relations. It is the structure that modifies itself more rapidly, following stimuli from outside and inside the system. The organisation maintains, instead, a greater degree of rigidity, in that a radical modification of the relations that compose it can lead to the disintegration of the system. Obviously, organisations evolve over time, according to its laws (it is in this sense that the system is autonomous and autopoietic).

3. Territorial competitiveness. Some epistemological and theoretical implications

When it comes to the issue of territorial competitiveness – that is the realm where we would like to offer some evidences of the consequences of the framework we adopted – it should be clear that the systemic approach we developed has strong implication. The first consequence is extremely important: we are not questioning if a territory as whole can be assumed to be competitive, but how specific productive territorial local systems (PTLS) are competitive. Secondly, a PTLS is productive at both the organisational and structural level:

- (i) the organisation produces itself: in this perspective, productive means autopoietic;
- (ii) in producing itself, the organisation also produces a structure: this second level entails the production of both goods and meanings.

Therefore, when talking about territorial competitiveness we must distinguish the capability of the system to reproduce its organisation (*organisational territorial competitiveness*) and the success of contingent competitive phenomena which occur at the level of the structure, like selling manufactured goods or attracting FDI or new dwellers (*structural territorial competitiveness*). Moreover, such a systemic standpoint can help us in clarifying some of the ambiguous features of the competitiveness debate.

Identity and personality

One of the first and mainly unsolved issue which has been arisen by the growing debate on territorial competitiveness is the question whether talking about territorial competitiveness necessarily implies that territories possess a *clearly identifiable identity* which bestows them some form of collective agency (Dematteis and Governa, 2003). This trouble has been summarised questioning whether or not territories hold something like a *personality*, like firms, which are told to have a juridical personality. Following what has been said in the previous chapter, we can try to briefly address the question consistently with the systemic approach we adopted.

The first point, here, is to recall the distinction between territory and PTLs. The first, in fact, has been conceptualised as the outcome of reiterated processes of structural coupling among different local systems – both territorial and a-territorial. In other terms, we adopted a sceptical position with reference to the possibility of speaking about territories' systemic organisation: the process of territorialisation – that is attributing a meaning to the territories – is so complex that there is no feasible way of assessing if territories do have a clear and univocal organisation, that is, an identity, that is, a personality. The first conclusion is therefore that the concepts of identity and personality are such controversial monolithic concepts that cannot be applied easily to the territory as a whole.

The second step is to consider how the concept of PTLs can be characterised through the metaphor of personality. At a first sight, because of the conceptual proximity between systemic organisation and identity, we might imply from the existence of PTLs' organisation that PTLs possess a full personality. Nevertheless if we consider the real inferences of our approach we have to consider several issues:

- (i) the first and likely more important issue is about the nature of PTLs' organisation itself: as we have seen since the beginning the organisation, and therefore the identity, of the PTLs should be interpreted, in a cybernetic framework, as a syntactic process, rather than a semantic one. Therefore, PTLs lacks one of the main features which would allow us to speak about a full personality: it does not produce emergent meanings, but it holds only computational processes of combination among meanings produced at other scales in order to produce a specific form of knowledge. More radically, when considering systemic organisation, we are not even interested in the set of contingent meanings, but in the cognitive process of learning. Contingent meanings are important to evaluate the processes of structural coupling and structural change, but with respect to the systemic organisation are just signs processed in a computational process;
- (ii) moreover, unlike individual firms or associations, the PTLs is a system whose components are other systems rather than individuals. This implies that there is a higher level of both organisational and reflexive complexity which, in absence of a linear and univocal causation chain, make it impossible to move from the individuals to the PTLs maintaining the personality's properties, which we can find at the individual level and eventually at the associational one (see Pichierri, 2012);

- (iii) autopoietic systems are not teleological in their functioning, while acting following purposes and strategies is one of the main features of being a person. Strategies and purposes can be present, but they are always secondary in that they are attributed by an observer, which can be external (a scholar, a consultant or a national policy maker, just to give a few examples) or internal (an association, a trade union or a Schumpeterian entrepreneur);
- (iv) finally, even in presence of organization which seems to be legitimised to speak and act on behalf of the PTLs (for instance a local development agency or an export oriented consortium like in many industrial districts), we must keep in mind that the existence of such actors is just a structural feature of the PTLs and not an organisational one: they are instrumental and therefore they are not part of the organisation. In designing policies for local development, it should be therefore clear that this kind of collective agency is just interpreting, and not standing in for the organisation of the system.

As a consequence it seems to be inappropriate to talk about a territories' juridical personality: for sure, they must possess an identity, but, because of the reasons pointed out, this identity must be conceived in cognitive, computational and syntactic terms rather than in vitalistic, semantic and idealistic ones. Recognising that territories are important for the human spirit does not mean to imply that they hold a spirit (Colletis-Wahl and Pecqueur, 2008). Even more importantly, the way we address the issue of territorial competitiveness seems to allow us to reduce the importance of the personality issue: as autopoietic systems are characterised by organisational closure, the competitive issue is related to maintaining the organisation, that is to reproduce the fundamental knowledge which distinguishes the PTLs from other systems. Competitiveness towards other territorial systems comes secondary when considering the contingent processes of structural coupling and change, through which the organisational closure is maintained.

Path dependence and emergence

The second issue we have to address about territorial competitiveness is about the character of path dependence, which is traditionally associated with agglomeration and competitiveness, and how it interacts with the ideas of emergence and novelty, which are central in complexity and systemic epistemologies. We will argue that the shortcut to explain the coexistence of both *continuity* (that is, path dependence) and *emergence* (that is, invention of new paths) is given, once more, by the distinction that Varela and Maturana introduced between organisation and structure (Maturana and Varela, 1985). There are, in fact, some similarities between how we defined the operability of an autopoietic system and the emphasis that both New Economic Geography and New Industrial Geography put on path dependence. More precisely the application of autopoiesis to social systems and territories allows us to distinguish two kinds of path dependence, a structural one and an organisational one:

- (i) *structural path dependence* refers to the concept of structural determined change, that is, the fact that the changes in a system are changes in the structure, which depend on the previous states of the structure itself.

- (ii) *organisational path dependence*, that is, the fact that the PTLs maintain continuity in the basic set of relationships that define its identity. In other terms, organisational path dependence can be assumed as a synonym of closure

At the same time, both structure and organisation can change over time, but in different ways. More precisely, the structure have a broader range of possible variation, as along as the organisation stays relatively still and maintains its internal consistency. In a theoretical perspective, we might admit that also the organisation changes over time without substantial alterations. Nevertheless, in practical terms, it is very difficult to set a boundary after which the PTLs has changed its organisation so much that it becomes something different. Therefore, we can hypothesize that the organisation either changes dramatically and catastrophically – and therefore the PTLs becomes something completely different – or it stays mainly unchanged over time.

This systemic account of emergence and path dependence, allows us to address some of the open questions we inherited from the literature. We can shortly consider here, three of them: Krugman’s account for history and path dependence; the emergence of innovation within a PTLs and the problems of lock-in, inertia and creative destruction.

- (i) Krugman’s account for path agglomeration and path dependence is mainly referred to the structure of a PTLs, in that he focuses his explanation on the two concepts of *increasing returns* and *monopolistic competition*, which are actually features of the contingent structure, rather than the immanent organisation (Malecki, 2011). As a consequence, NEG seems to fail in addressing long-term continuity, which is (un)explained using the concepts of QWERTY or pure chance. In a systemic perspective, what Krugman sees as “chance” is instead a specific learning process with a relatively clear beginning and development. Of course at the very beginning, we agree that a random fortuitous event might be the sparkle which led to PTLs’ birth, but focusing on the learning organisational core, rather than just on structural mechanisms, might help us in shifting the boundaries of our interpretation and comprehension;
- (ii) the second issue is about the emergence of innovation. In a systemic perspective, given that the organisation will preserve PTLs closure, innovation will occur in the structure, either internally produced during the process of autopoiesis or internalised from the environment, through the process of structural coupling. Even in presence of a “catastrophic” account for innovation, like the Schumpeterian reworking of Kondrat’ev’s innovation-led economic cycles, we can maintain that even scientific revolutions just affect PTLs’ structure and not its organisation: organisation can still be imagined a sort of Braudel’s *longue durée* which runs underneath such epochal and epical transformations, just finding some form of structural coupling with them³;

³ For a theoretical account of contemporary implication of Braudel’s systemisation, with particular reference to the concept of “longue durée”, see the most recent Wallerstein’s work “The Uncertainties of Knowledge” where Braudel’s account of duration is reinterpreted in the light of complexity theorist Ilya Prigogine’s thought. For some empirical evidence, see Porter’s narration how competitive advantage

- (iii) both NEG and management scholars involved with the knowledge-based and institutional learning approach share some worries about the *lock-in trap*. Path dependence and continuity, as well as tacit forms of knowledge, imply, in fact, a certain degree of inertia, which might prevent the adaptation of the economic system to changing times⁴. Actually, in an autopoietic perspective, this is largely a fake problem: as far as structural change is admitted, the troubles of lock-in can be avoided without sacrificing the organizational continuity⁵.

As a consequence, we do not have to face an *aut aut* between path dependence and emergence, as the systemic distinction between organisation and structure implies that both dependence and emergence vary in amplitude and scope and that therefore they can coexist in different layers of the PTLs.

Cohesion and power

In considering the implication of systems theory for understanding territorial competitiveness, the third and last issue we would like to address is about cohesion and power. Territorial competitiveness literature often emphasises internal cohesion among groups and classes within the territory, while conflicts are seen as favouring the competitors, making the territory unattractive for FDI and wealthy dwellers and decreasing productivity. On the other side, its critics have stressed that TC policies often hide neo-liberist shift in national power balance (Brenner, Peck and Theodore, 2010) or, at least, there are specific shareholders who benefit more than others. This issue is particular sensitive within the theoretical framework we adopted. Since Menemio Agrippa's (in)famous apologue in Ancient Rome, organicism – and, broadly speaking, the use of biological metaphors in social science – has been seen as teleological and therefore aimed to maintain existing power relationships among social groups and classes. More recently, Luhmann's social systems theory has been repeatedly accused of being intrinsically conservative, if not reactionary. The misunderstanding is also possible when considering the “political” implication of PTLs. Saying that the variety of meanings refers to the structure and not to the organisation – and that therefore they are contingent – might be interpreted as a neglect of power relationships and conflicts, if not as advocacy of the strongest' rule. The criticism towards the application of systems theory in social studies is also partially substantiated because of its apparently strong anti-individualist inspiration.

changed in Sassuolo's industrial district (Porter, 1990): tiles production, in fact, started in pre-modern times and evolved mixing local knowledge produced within the PTLs with epochal innovation such as engine and electronic. Not only the traditional knowledge has been preserved, but it also has been used to create a competitive advantage in emergent sectors, like the production of machine tools related to tiles production. See also Porter and Kramer (2011).

⁴ Hence, the revival of the Schumpeterian emphasis on “creative destruction” as part of the innovation process which keeps capitalism alive.

⁵ We cannot anyway exclude *a priori* that a PTLs can face such a deep crisis that even its organisation is at risk in that it become obsolete – that is, in systemic terms, there is not any possible structural coupling with the fast changing environment and therefore that particular organisation will implode. Nevertheless, this represents the last *ratio*.

Nevertheless, we claim that this judgement depends on the confusion that is often made between organisation and structure⁶.

The idea that power and struggle are fundamental in shaping important systemic processes – like structural coupling – is, in fact, quite self-evident. Moreover, our point is that power and conflict are not only important in regulating the external relationships between different systems⁷, but also in defining territorial and local assets. In fact, power relationships and conflictuality are central in defining both the territory and the Productive Territorial Local System:

- (i) territory has been conceptualised, in fact, as the outcome of iterated structural coupling processes and therefore is, by *antonomasia*, produced by different systems which are not necessarily harmoniously committed to each other;
- (ii) PTLS itself is produced by a process of organisational synthesis which is not necessarily and intrinsically peaceful: the interaction between systems that compose the PTLS entails an emergent order, therefore some form of cohesion, but there is not specific need for the easiness of this synthetic process.

As a corollary, we have that PTLS' organisation must be stable in order to keep the system itself into existence, but we cannot take for granted that the system will last for ever and ever: conflicts can increase and produce an irreversible crisis (de-territorialisation), which will lead to a new organisation and therefore to a new PTLS (re-territorialisation). Moreover, we have insisted that the process of organisational synthesis is a syntactic procedure that processes different meanings and knowledges in a unique knowledge, which represents the core of the systemic organisation. In this process, new knowledge is computed but no new meaning is necessarily produced, so that there is no automatic moral judgement about the goodness of what is produced: also Italian mafia might be described as a PTLS which reproduce itself by producing institutional knowledge.

4. Towards a conclusion: needs for rethinking local development

Taken together, these argumentations are brought out in the conceptual framework that we have constructed so far: if reality is complex and multidimensional, every interpretation of it will be a point of view in a single process of understanding phenomena which, to be comprehended, must be observed in their many facets. It follows that knowledge is no longer conceived as predetermined, but can be developed only through the interaction between the subject-observer and the object of knowledge. Local policy as the mere expression of a development ethic that accepts the laws and dynamics of contemporary capitalism produces nothing other than a simple – local –

⁶ Luhmann himself fostered the ambiguity of his interpretation, misrepresenting the distinction between organisation and structure – which is seminal in Varela and Maturana's original theory – and focusing only on the process of autopoiesis.

⁷ Considering purely external conflictuality – implicit in the notion itself of territorial competitiveness – would be, in fact, consistent with the alleged accusation of excessive emphasis on internal consistence.

specification of standardising processes and forces. In this case, although turning attention to places modifies our vision of development process, it cannot change the concept of development itself. To state that places (whether they are defined as clusters, industrial districts, *milieu innovateur*, or with yet other metaphors) play a fundamental role in the contemporary economy does not yet mean stating their centrality.

The thesis that now emerges is fundamentally different. The systemic perspective is the bearer of the idea of a PTLs that reproduces its own identity, given by the organisation of those social, cultural and economic relations that make its 'uniqueness'. In this case, if the arbiter of development is no longer the market, but the local system, it follows that the benefits of local development are evaluated in terms of the maintenance of the system's organisation. It follows that the political solutions possible are those compatible with the identity of the local systems, i.e. with their capacity for self-reproduction. Otherwise, as we have seen, there would be a shift from a logic of local development to one of mere valorisation, and thus of possible destruction of the system.

In conclusion, the relationship between the local scale and possible development paths and policies appears fundamentally dialectic. A development path is not valid on all scales, nor does there exist a temporal succession of hegemonic models of development, each of which dominates a given historical period. On the contrary, they co-exist at the same time and in the same place. This *depends on the position one takes in order to decide*, i.e. on specific institutional assets. It is these, in fact, that define the way local actors organise socio-economic relations internally, the exploitation of local resources and the relationship with other scales.

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