

Is there room for local development in a globalized world?

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This article seeks to answer the question asked in the title: no easy task, as we shall see. To this end, it will be necessary, firstly, to clarify what "globalization" means in this context; secondly, to identify the relations between the globalization process and local areas: a matter which some people consider to be ambiguous or (falsely) solved through the "death" of the local dimension and of geography in general; thirdly, to determine whether something like "local development" belongs in the logic of globalization, clarifying in the process the different interpretations made of this concept, and finally, to examine the contributions (if any) made by the universities and local development itself to globalization, to the functioning of supranational blocs (such as MERCOSUR, for example), to competitiveness, and to development itself.

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I

Globalization: a Pandora's Box?

Globalization is an important item in the debate which has arisen on the nature of the international order since the end of the Cold War. It is not a concept linked with a clearly articulated theory, but at all events it has become a powerful metaphor for describing a number of worldwide processes currently under way. From our point of view, one of the most important characteristics of globalization lies in the multiple dialectics to which it gives rise: in political geography, for example, it gives rise diachronically to forces that tend to promote the creation of supranational quasi-States and subnational quasi-States, or to changes in the geographic location of manufacturing, leading to the creation of a single global market which contrasts with the enormous range of discontinuous production locations scattered all over the world. The first dialectic, at the macro level, produces a kind of schizophrenia at the micro level among individuals, by subjecting them to the tension between needing to be universal and the simultaneous need to be local, while the second dialectic gives rise to a networked form of production and a discontinuous type of physical and economic geography at the manufacturing level.

As is well known, there are at least two ways of referring to globalization: one metaphorical and the other more scientific; this is not to say that metaphors cannot have a scientific nature, but they are always “circumloquial” and sometimes it is necessary to look for the hidden or concealed truth in the language used. From the metaphorical standpoint, García Canclini (1999) has brilliantly described globalization as an “unidentified cultural object”; Baumann (2000) has referred to it as “a fetish, a magic spell, a key designed to open all the doors to all mysteries, present and past”; Boisier, recalling film-maker Luis Buñuel, has called it “an obscure object of desire” and “the discreet charm of the bourgeoisie”, and once again, García Canclini (1999) has said with incisive humour that “everything that is not the fault of the Corriente del Niño is the fault of globalization”.

As we all know, the world is already divided between anti-globalists and pro-globalists: the former are more radical, with charismatic leaders like Michel Bové or Ignacio Ramonet, while the latter, whose leaders are organizations like the World Bank, the International

Monetary Fund (IMF) and the World Trade Organization (WTO), are more conservative. The former are idealists who want to swim against the current, while the latter want to impose an ideological and political framework based on the ill-named Washington Consensus. There is a great deal of picturesque dramatization, a lot of ignorance, and a large amount of authoritarianism in this wide range of attitudes. From a structural point of view, appropriate to a more scientific standpoint, and in the space available in this article, it can only be said – and this is perhaps the most important aspect – that the term “globalization” is a descriptor of the present technology – and knowledge-based phase in the development of capitalism, and as such it forms part of the logic of the capitalist system, above and beyond any simplistic presumptions regarding the “evil” or “perversity” of specific personalities: speculators such as Soros, intellectuals such as Stiglitz, techno-industrialists such as Gates, politicians such as Bush, Blair or Chirac, or, at a much more modest level, intellectuals of the most varied type.

As everyone knows, the system of social production relations called “capitalism” – which is precisely that, and not an ideology – was born in the sixteenth century as predominantly commercial “proto-capitalism”, which developed above all in Holland (Maddison, 1991), and it was in mid-eighteenth century England, through the Industrial Revolution, that it was to open the way for an “industrial” form which, in turn, would make room for a “financial” variety which would finally enter the era of “the end of history” (to paraphrase Francis Fukuyama) as a “techno-cognitive” form based on technology and knowledge. Each of these stages or forms coexists with the others, but one of them dominates at any given time. The central feature of the techno-cognitive stage of capitalism is the simultaneous existence of two phenomena which may be imagined as two curves in a quadrant: first, an ever-shorter life cycle for each generation of products, and second, ever-higher costs in terms of research, development and innovation in order to pass from a product of generation n to one of generation $n+1$. Thus, there is one curve which is exponentially decreasing, and one which is exponentially growing. The speed of generation of new knowledge naturally lies behind this.

The capitalist system, like any biological or social system, has a more than Kantian absolute need: its constant reproduction. To meet this need, it must recover as quickly as possible the resources spent on the invention, design, manufacture and marketing of the product of generation $n+1$, and in view of this need, the system does not and will not tolerate frontiers, customs posts, tariffs, prohibitions, or any other mechanisms that hinder trade: the system needs a single unitary space for trading.¹ In the light of this argument, it is easy to understand the frantic race to sign all kinds of agreements between countries and to understand what ECLAC means when it speaks of “open regionalism” —a game played with enthusiasm by, for example, Chile, which as a small economy must place its bets on all the gaming tables of this sort of world casino.

To sum up, it may be noted that external openness, which is perhaps the most visible manifestation of globalization, obliges countries and regions to use that openness to place their tradeable products in two niches of international trade: the niche corresponding to the modernity of the products traded, and that corresponding to their competitiveness.² It may be noted in passing that “modernity of production” is something which is intrinsically associated with “innovation”, which in turn, like “competitiveness” is now increasingly linked to territorial location.³

Globalization and territorial location form a duo whose interaction and even its very existence are the subject of diametrically opposed positions between those who hold that globalization reduces the importance of territorial location and those who consider that, on the contrary, it leads to a new enhancement of that dimension. According to Simmies (1997), the specialists in this matter tend to fall into two groups: those who are concerned with the increasingly important role played by big corporations and those who are more interested in the smaller firms, while both groups are interested in the causes of the spatial agglomeration of innovative economic activities.

One side of the argument —supported, for example, by Froebel, Heinrichs and Kreye; Henderson and Castells, and Amin and Robbins— is that a global

economy dominated by the great transnational corporations has arisen. The decisions of these corporations on the location of production or research and development (R&D) activities determine to a large extent what type of economic activity will grow up and where. Thus, the local territorial level becomes a kind of “dependent variable” in the innovative growth function.

The other side of the argument, however, represented by authors such as Piore and Sabel; Porter, Scott and Storper; Stöhr, Vásquez-Barquero, Garofoli, Cuadrado-Roura and many specialists from Latin America —including the present author— and from the Third World in general, is that the local level is becoming more and not less important in terms of its contribution to innovation and high technology.

The “globalizers” base their argument on the obvious fact that an important proportion of capital is becoming concentrated and centralized at the level of the international economy, as is confirmed by abundant data. It follows from this line of argument that local areas, regions and even whole countries are being redesigned in line with the global economy and its main actors: the transnational corporations. The “localists”, in contrast, point to the supposed reaction of consumption to the homogenization of the goods and services traded and the fact that many enterprises have responded by “flexible specialization”: a strategy of permanent innovation that seeks to adapt to incessant change rather than trying to control it. Flexible specialization goes hand in hand with small scales of production and with the need for “collective learning”, which is greatly facilitated by geographical proximity: one of the reasons for the enhancement of the local level.

The fact is that both arguments share the truth. Globalization affects the size (and inevitably the location) of production units in two opposing and simultaneous ways. Economies of scale favour large size and territorial concentration, while the economies of flexibility demonstrated by Storper (1997) and those of differentiation favour small size and dispersion, but as small production units working in isolation have a high probability of failure, those economies also favour the formation of what are called “new industrial districts”.

From another point of view, it may be noted that there are at least three arguments in support of the theory of the enhancement of the local level, precisely within the context of globalization.

Let us begin with a sociological argument. As Edgar Morin once pointed out, modernity has given

¹ But, paradoxically, multiple spaces for production. Naturally, the logic of the system does not fully coincide in the short term with the logic of the defence of national economies, but it is easy to guess which of the contenders will finally succeed in imposing its form of world organization.

² See, for example, the excellent study by Silva (2003).

³ These interrelations were analysed by the author in Boisier (2003a).

rise to a metastasis in Man's ego which has led him to believe in a new form of citizenship, that of "citizen of the world", devoid of any atavistic links identifying him with his "native soil", whether large or small. "I've Been Moved" —the well-known fanciful interpretation of the initials IBM— is an expression of this vanity (not being from here nor from there, nor being of any particular age or identifying colour, as in the song by the Argentine singer/composer Facundo Cabral), because the truth is that most of us are not even full citizens of our own nations (except in the legal acceptance of the term). In most cases, we are merely "local citizens", never straying far from home and living a limited everyday life.

A small empirical survey would be sufficient to show that the vast majority of people live their lives in a geographical space with a radius of not more than 500 kilometres. Within that space they live, form a family, work, obtain education and health, pass their spare time, and generally end up being buried there, in this space where everyday life goes on. It is easy to infer that, for any given individual, his possibility of realizing his own life project depends to a crucial extent on what happens over time in his everyday environment. It is therefore of vital importance for all of us that our everyday environment should function in the best possible conditions, since this increases the probability of successfully realizing our individual life projects in the area where we live. This is obviously a very good reason for involving ourselves as citizens in the way our own local areas are run. The same is true for micro-, small and medium-sized enterprises. The use of systemic "recursion" in this argument should also be noted, so that causes and effects change places over time.

From the technical and economic standpoint, the enhanced importance of the local dimension is clear and extremely significant. One of the most powerful effects of the scientific and technological revolution is that it makes possible, through microelectronics and other means, the functional and territorial segmentation of production processes without any loss of efficiency or profitability. This is a key question, because as it is now possible to break down a production process into component parts, an enterprise (now almost a holding) that plans to locate those parts of the process in different non-contiguous places in the world must carefully examine the characteristics of each place if its plans are to have a positive outcome. The location selected can make all the difference between success and failure in post-Fordist production, networked

production, or however it may be called. This is why globalization now requires detailed social analyses —as well as economic and technological studies— of the multiple locations where production activities are to be undertaken.

It is important, therefore, not to confuse the inevitable de-nationalization of industry referred to by Reich (1993), the former Secretary of Labor of the United States, with a decline in the importance of the local dimension. These are two different things: industries may have no homeland, but they do have vitally important territorial locations.

The importance of the local dimension has also been enhanced from the point of view of culture and identity, albeit within a globalizing dialectic due to the confrontation between the tendencies towards technological and cultural homogenization and defence of the individual and the community. Who could remain unmoved by total loss of identity and its replacement by total alienation? Who could remain indifferent to the loss of nationality and its replacement by imaginary corporate citizenship? Who would prefer to be a citizen of Coca Cola or Mitsubishi rather than being, say, a Chilean or an Argentinean? Between total alienation and complete marginalization lies syncretism and the "hybrid" culture of García Canclini. Contrary to what Bauman claims, being local in a globalized world is *not* a sign of poverty and social degradation. The happy mean is expressed rather by Robertson's neologism "glocal": thinking global and acting local (for the enterprise) and thinking local and acting global (for the local area). Although Aristotle reminds us that Man is a "political animal", it is no less true that he is also primarily a "territorial animal", and this characteristic of human beings is strongly evident now. For good reason, exile is considered to be an extreme punishment. If anyone still has any doubts about whether we are confirmed "territorial animals", merely ask the Israelis and Palestinians whether their territory "matters" to them or not.

But even so, the above considerations do not exhaust all the implications of the links between globalization and the local level.

As we all know, knowledge is perhaps the main pillar of globalization or of the techno-cognitive phase of capitalism and the gradual formation of a "knowledge society". We now know that there are new and complex links between knowledge and the local level, in such areas as innovation and the local level, collective learning, tacit and codified knowledge, and the generation of knowledge-based regions: a broad

category which includes such notions as learning regions, intelligent regions, and innovative environments (Boisier, 2003b and 2002).

The conclusions of this section are thus twofold: globalization corresponds to a phase in the development of capitalism, and as such it operates in a systemic manner that transcends individual or collective wills, but this characteristic does not make

it ungovernable: in globalization, or in this stage of capitalism, the local dimension plays a more important role than in the past. The local dimension must not be confused with distance, nor must geography be confused with what appears on the map. As Bateson (2002) so rightly said: “the name is not the thing named, nor is the map the same thing as the territory itself”.

II

Local development: is there something behind the tautology?

The word “development” denotes a concept which has “completeness”:⁴ it does not need anything else in order to be fully understood. In this sense, we must contradict Bateson and say that in this respect “the name is the same as the thing which is named”, and we must add that all the adjectives that usually accompany this noun only create redundancies, for, as we will see below, development can only be local, so that it cannot be anything but “human” or “sustainable” or “endogenous” or whatever, because otherwise, what kind of entelechy would it be?

This is not the place to repeat the lengthy arguments which have been presented in support of such assertions; these tautologies probably stem from the growing need to make a distinction between the notions of “growth” and “development” (Boisier, 2003b) or at best they serve to indicate an emphasis, but not to make a distinction.

We must look back and acknowledge the enormous wisdom of Perroux (1950) when he wrote that the plain but honest truth is that growth does not appear everywhere at once; it appears with varying intensity in growth points or poles; it spreads through various channels and has varying end-results for the economy as a whole (these words were underlined in the original). An observation like this, no matter who it comes from, should be sufficient to show without any doubt that development (and it should be noted that

Perroux was talking about growth, which is a much simpler question than development) is clearly a local and not a national phenomenon in both a geographical and systemic sense, and the concept of global development is merely an abstraction based on averages. Furthermore, what is usually called “a developed country” is rarely developed all over its area, and it might be more accurate to say that a developed country is one in which a high proportion of its territory and population is in that situation.

If pure reason were not enough, then the question may be posed: is development a phenomenon which is uniformly present throughout a given country? No? Then we must admit that we are talking about a local phenomenon: that is to say, one which is localized and established in the economic, technical, social and cultural characteristics of particular places. Hence, it may be held that development is a path-dependent phenomenon⁵ that evolves over time and, as such, always begins in one place (or several, but never in all places at once) and is always an essentially endogenous process (although its material base may be quite exogenous), always decentralized, and always has a capillary-type dynamic “from the bottom up and from the centre outwards” which will eventually produce, as a function of the territorial dialectic and of modernity itself, a development map which is rarely uniform but is usually in the form of an archipelago or, taken to an extreme, reflects a centre/periphery dichotomy.

⁴ “Completeness” might seem a linguistic sacrilege, but if Octavio Paz used this word when he said “*we are incomplete beings, and the desire for love reflects our eternal thirst for “completeness”*” (Paz, 1993, p. 41), then all we mere mortals are fully entitled to use it.

⁵ The concept of path dependence is associated with the irreversibility of time, something which is typical of non-Newtonian physics.

There is an important study (UNDP/ILO/UNOPS/EUR, 2002) which highlights some important points regarding local development: i) the development of a local area is strongly conditioned by the will and capacity of the local actors; ii) the development of such an area revolves around the enhancement of local potential; iii) the importance of small and medium-sized enterprises has been clearly shown everywhere; iv) development depends on the capacity to integrate business initiatives; v) the local area must be provided with appropriate instruments, and vi) the secret of success lies in the capacity for active interaction between the local, national and international levels.

If we acknowledge the territorially local or localized nature of development, then we must ask ourselves: what do we really mean when we use the expression “local development”, other than merely emphasizing obvious and tautological aspects? Is there something substantive and worthwhile in using that expression? Yes, there is.

A review of the literature on this matter reveals that there is a good deal of confusion about this concept. Perhaps Guimaraes (1997) was partly right when he commented that “local development” describes a practice which does not have much theoretical basis. In a quick search through that literature, the definition given by Buarque (1999) is particularly interesting: *Local development is an endogenous process observed in small territorial units and human settlements which is capable of promoting economic growth and an improvement in the quality of life of the population. Although it is a movement with a strong internal content, local development forms part of a broader and more complex reality, with which it interacts and from which it receives both positive and negative influences and pressures. The general concept of local development can be applied to different kinds of small territorial areas and human settlements, from local communities ... to municipalities and even small micro-regions. Municipal development is therefore a particular case of local development whose area of action is determined by the administrative area of the municipality*. Buarque goes on to say: *Local development under globalization is a direct result of the capacity of the local actors and society to organize themselves and mobilize their efforts on the basis of their potential and their cultural matrix, in order to define their aims and explore their priorities and special characteristics to obtain greater competitiveness within a context of rapid and far-reaching change.*

Other important references on this subject are to be found in the studies by Antonio Vásquez-Barquero, José Arocena, Augusto de Franco, Pierre Muller, Pierre Veltz and Michel Savy, Francisco Albuquerque and others.

Globalization is a highly complex techno-socio-economic matrix, both because of the number of elements involved and the number of interactions and dialectics it contains. As already noted, to some extent it is more a currently used metaphor than a well-established theory. In the field of activities that require economies of scale, it favours mergers, the formation of huge enterprises, concentration and homogenization. In the field of activities that require economies of differentiation, it favours small-scale enterprises, flexible networked production, multiple locations, and local roots.

It is in this latter respect that a space is opened up for local development in globalization. There are three complementary approaches to this development which are not necessarily independent of each other but which involve substantially different forms of local development, beyond the undeniable geographical dimension: the approach which sees local development as a matrix of diverse industrial structures, the approach which sees it as an endogenous process of structural change, and the approach which envisages the “empowerment” of local society.

1. Local development as a matrix of industrial structures

Krugman (1991) speaks of the “resurrection of economic geography” due to the recognition of the existence of increasing returns, which leads to the reformulation of localization theories on the basis of the study of the economic advantages provided by processes of spatial agglomeration of economic agents.⁶ Another part of this resurrection is the re-reading of Alfred Marshall and the rediscovery of “industrial districts” and the “industrial atmosphere”, the growing importance of ensuring the global “competitiveness” of industrial activities—a subject obviously associated with Porter—and the evidence supporting the importance of a territorial “environment” which facilitates innovation, starting with the work of Pierre Aydalot.

⁶ The Spanish journal *Investigaciones Regionales* reproduces a notable dialogue, in a relaxed and informal tone, between P. Krugman and M. Fujita which is worth reading carefully (see Krugman and Fujita, 2004).

The local development approach centered on the industrial structure has given rise to three views on analysis, research and dissemination, based respectively on i) industrial districts “Italian style”; ii) an environment which facilitates innovation, as in France, and iii) clusters “American style”.

I imagine we are all pretty well familiar with the content of these views. In industrial districts, as may be seen empirically in Northern Italy, the main element is specialization and “coopetition”, a neologism invented in order to describe a form of business conduct in which there is cooperation in certain links of the value chain and competition in others. The strong cultural basis for these forms of collective conduct and the importance of social capital have been extensively proven.⁷

With regard to the “innovative environment”, a concept invented by the GREMI group (Groupe de Recherche Européen sur les Milieux Innovateurs), it is claimed that the “environment” is a collective operator which reduces the static and dynamic degrees of uncertainty faced by enterprises through the tacit and explicit operation of functional interdependence between the local players (actors), by way of such functions as research, transmission, selection, decoding, transformation and control of information. The notion of the “innovative environment” or local setting has three characteristics, according to Vásquez-Barquero (1999): i) firstly, it refers to a territory which has no precise boundaries but which forms a unit and which is the place where the actors organize themselves, use material and non-material resources, and produce and exchange goods, services and communications; ii) the local actors also form a network through their relations and contacts, thus establishing links of cooperation and interdependence; and iii) the local environment contains collective learning processes which enable it to respond to changes in the environment through labour mobility in the local market, exchanges of product, process, organizational and marketing technology, provision of specialized services, all kinds of information flows, or the strategies of the actors.

The concept of clusters was introduced into territorial economic analysis by Michael Porter (1998), who defined clusters as geographic concentrations of

enterprises and institutions interconnected in a particular field (or sector). According to that article by Porter, such concentrations do not have well-defined geographical limits in a political sense (they are “blotches” of activity on the map and as such spread across national or international frontiers) and their two most important characteristics are that they make possible the emergence of simultaneous attitudes of business competition and cooperation, and they allow each member of the agglomeration to benefit as if he were operating on a larger scale or as if he were associated with others, but without sacrificing his flexibility. Porter himself cites the examples of the concentrations of enterprises in wine production in California, leather in Italy, or the chemical industry in Germany and Switzerland.

According to Helmsing (2000), the strength of concentrations of small and medium-sized specialized enterprises lies in their external economies of scale and scope. That author cites recent studies which show, firstly, the great variety of agglomerations which already exist, and secondly, their internal heterogeneity. Indeed, some of them are connected with activities controlled by big transnational corporations, such as a potential copper-mining agglomeration in Chile.

Ramos (1997) considers that the formation of clusters, which he calls production complexes, has a good deal to do with the fact that the competitiveness of an enterprise is further enhanced by the competitiveness of the set of enterprises and activities operating in the vicinity. This competitiveness of the group as a whole derives from substantial externalities, economies of agglomeration, technological spillover and innovations arising from the active interaction of firms which are in the same location. Thus, the concept of clusters forms part of the wide field of theories on industry location.

A study by ECLAC (Buitelaar, 2000) contains one of the clearest and most exhaustive reviews of this concept and presents an interesting classification of clusters, originating in a study by Roelandt and den Hertog (1999). This classification distinguishes the national-macro, sectoral-macro and enterprise-macro levels and three corresponding concepts of clusters: sectoral links within an economic structure, inter- and intra-industry links, and contacts between enterprises, respectively. For Buitelaar, clusters are therefore geographical concentrations of interlinked groups of enterprises and institutions which form a value system and whose position in the market is explained by the learning capacity of the whole.

⁷ For a critical view on the replicability of the Italian districts, see Bianchi and Miller (1999).

2. Local development as an endogenous process of structural change

The concept of endogenous development is just as popular nowadays as that of local development. It is not easy to distinguish between the two, but it is almost essential to do so.

First of all, it is necessary once again to make a distinction between the concepts of growth and development, since in mainstream thinking on economic growth theories, starting with the work of P. Romer, R. Lucas, X. Sala-i-Martin and others, the concept of “endogenous growth” has gained currency for describing a global process in which spending on scientific and technological research—the main factor in progress through knowledge—obeys an economic rationale, that is to say, money is spent on R&D because it is profitable, as illustrated so eloquently by the case of research on the human genome. Solow’s residual factor is internalized in the production function. Without any need to assume the exogenous growth of any variable, models of this type generate positive long-term economic growth rates.

Global growth, then, is now considered to be an endogenous process, but extrapolating such a global situation to a smaller geographical scale, such as a locality, is obviously confusing because, at least from the point of view of decision-making (and it must be allowed that an economic growth process is necessarily the result of a matrix of decisions taken by various different agents), local growth (whatever its exact scale) inevitably takes on an increasingly exogenous aspect in globalization, because of the increasingly alienogenous nature of the decision-makers. In other words, although decision-makers may act in line with the purest economic rationality, they are mostly and increasingly not inhabitants of the place in question. In this sense, then, it is reasonable to speak of exogenous subnational growth.

It is quite true, however, that every development process is by definition an endogenous process whose conception, design and implementation only belong to the community inhabiting the given locality. This does not appear to be disputed by any specialist, but it is necessary to be very careful and precise in the language used and, of course, to get away from the synonym between growth and development.

Garofoli (1995), who is one of the most notable exponents of the “new regionalism” in Europe, defines endogenous development as follows: “In reality, endogenous development means the capacity to

transform the social and economic system; the capacity to react to outside challenges; the promotion of social learning, and the capacity to introduce specific forms of social regulation at the local level which favour the development of the foregoing characteristics. In other words, endogenous development is the capacity to innovate at the local level”.

From another point of view, it could also be asserted that the endogenous nature of processes of territorial change should be understood as a phenomenon which operates on at least four levels that intersect and cross each other.

Firstly, that endogeneity refers to or occurs at the political level, where it is identified as increasing local capacity to take important decisions on different development options, different styles of development, and the use of the corresponding instruments: that is to say, the capacity to design and execute development policies, and above all, the capacity to negotiate on the elements that define the setting of the local area. Behind this capacity, there must necessarily be a political arrangement that favours decentralization.

Secondly, endogeneity also exists on the economic level, where it refers to the appropriation and local reinvestment of part of the surplus in order to diversify the local economy and at the same time give it a permanent base for long-term sustainability. On the economic level, endogenizing local growth means in practice seeking to reconcile the long-term strategic objectives of the local area with the long-term strategies of the non-local capital present in the area. Local reinvestment will naturally depend on the economic expectations in respect of the local area and on the pact, agreement or political project of the social forces which are interested in the future and act accordingly.

Thirdly, endogeneity is also interpreted, at the scientific and technological level, as the internal capacity of a system—in this case, an organized territory—to generate its own technological drives for change, capable of bringing about qualitative changes in the system itself. The existence of a local science and technology system—in line with Sábato—is an essential condition for this.

Fourthly, endogeneity also exists at the cultural level, as a kind of matrix that generates a socio-territorial identity, which is now considered to be of fundamental importance for development in the true sense. Local culture, whether recovered or newly built, requires an Aristotelian collective rhetoric: an *ethos*, a *pathos* and a *logos*.

Thus, the approach to local development as an endogenous process of change straddles both growth and development. It therefore shares elements of exogeneity associated with local growth and endogenous elements associated with development, since growth and development, although structurally different, are not independent phenomena, even though their linkages are complex and not fully known. Consequently, institutions, organizations and actors—all categories belonging to the local area—become important elements from the point of view of policy design.

3. Local development as the empowerment of local society

The Organization for Economic Cooperation and Development (OECD, 2001) has come up with a new local development proposal based on the devolution of executive authority to the local levels. It considers that globalization calls for the devolution of capabilities to the local ambit.

People usually view devolution and globalization as two opposite phenomena. One is seen as a process of increased local decision-making power; the other as a process of increased internationalization of economic interactions. The two tendencies are interdependent, however, since in order to compete successfully in a globalized economy, the local levels increasingly need policies that will help them to construct and exploit endogenous capabilities.

Globalization implies growing international flows of capital and technology and the expansion of international markets and competition. This is creating a need for more rapid and profound economic adjustments than in the past. At the same time, the performance of regions and cities is less closely linked to the fate of the national economy and more affected by international events. Globalization is changing the rationale of public intervention in terms of how to regulate the economy and how to put public policies in the right place, that is to say, how to recognize subnational levels of authority.

The door has been opened for local society to assume (or recover) areas of authority which will enable it to intervene in its own processes of social change (growth or development). It is interesting to note that the hypothetical curves of (social) demand for

local autonomy and of the (State) supply of such autonomy are already intersecting here and now, and not at an almost infinite point in time. The importance of this phenomenon in processes of forming supranational associations (such as MERCOSUR, for example) is clear. Nothing is automatic, however, and everything requires collective “intelligence”, which must be strengthened.

It may be concluded that globalization, as a process which simultaneously seeks to form a single marketing space but multiple production locations, contains forces which promote the local dissemination of segments of various value chains, while also giving rise to forces that promote not only decentralization but also centralization and concentration. In view of this combination of effects, it may be said that while globalization stimulates processes of local growth, this does not mean that it also stimulates processes of local development. The location of segments of value chains in a discontinuous manner all over the world can strengthen latent structures or it can create structures from which industrial districts, innovative environments or clusters can be formed, but there does not seem to be anything automatic in this. Whether they are strengthened or created, phenomena like these become environmental conditions for sustaining development processes, which require intelligent social interventions more than growth processes do. Whether or not globalization stimulates highly endogenous processes of social change in some local areas will depend on the dialectics that come into play, and this will be linked with the devolution of capacities and areas of authority that the demands of competitiveness will tend to make the responsibility of the State. What also seems clear is the need for informed and motivated local societies which have the minimum level of knowledge needed to understand the globalization process and which are capable of forming consensus in order to act in a pro-active manner: i.e., they must be socially organized.

Haddad (undated), basing his views on Boisier (1991), says in a report on human development in MERCOSUR that this *capacity of a region for social organization is the endogenous factor par excellence for transforming growth into development, through a complex network of development institutions and agents linked together with a regional culture and a political project.*

III

The formation of supranational spaces in Latin American globalization: their effects on local growth and development processes

As from the 1980s, Latin American economic integration has registered a notably vigorous resurgence. This process has taken place in a national and international economic context which is radically different from the past. Thus, whereas previously priority was given to an import substitution strategy in a world setting where protectionism was a relatively important phenomenon, now the countries are bent on increasing the openness, deregulation and privatization of their economies, in an external context of growing globalization. Against this background, in the early 1990s Argentina, Brazil, Paraguay and Uruguay set up MERCOSUR with the aim of forming an economic space by the end of 1994 in which there would be free circulation of goods, services and factors of production among the member countries, together with a system of common external tariffs, with coordination of macroeconomic and sectoral policies and harmonization of the laws of those countries. Thus, in 1994 they signed the Treaty of Ouro Preto which formally set up MERCOSUR: a customs union which is only semi-complete (95% of intra-regional trade circulates without paying customs duties) and is also not yet perfect (the common external tariffs cover nearly 85% of the products traded by the bloc with third countries). In 1996, MERCOSUR and Chile signed an Economic Complementation Agreement which added to the tariff exemption programme for trade in goods complying with the origin requirements a Physical Integration Protocol aimed at promoting the development and use of the physical infrastructure, with special emphasis on the establishment of bioceanic corridors.⁸

Obviously, the immediate result most sought for by the various types of agreements which have been signed under globalization is to increase the trade flows of goods and services in the new economic spaces

opened up. As barriers are removed and the market is unified, three sets of prices are changed or may be changed: the relative prices of tradeable and non-tradeable goods, the price of foreign exchange, and that of real wages. When the market has been unified, trade in corresponding goods and services will depend strictly on their relative competitiveness, which is partly based on static and partly on dynamic comparative advantages. For example, it is difficult for the meat sector of Chilean agriculture and the regions where it operates to compete with the products of the wet pampa region of Argentina if such competition is based solely on static advantages, but competition is easier or broader when some dynamic advantages are brought into play, such as meat quality classification or the capacity to control foot and mouth disease, as occurs in actual fact.

At all events, it is clear that the emergence of a new trade pattern, which is not only the result of expanding existing trade relations but also, and especially, of introducing new products and changing the proportions of mutual trade, has a definite impact on the “old” regions and their process of reconfiguration, by generating new spaces for trade and obliging many regions to face production adaptation processes which were not envisaged for the immediate future. It would be hard, for example, for the Chilean rice-producing areas to stand up for long to the competition of Uruguayan producers.

Here, the range of effects involves simultaneous processes of growth and reduction of production. Once again, as in the case of the emergence of a new territorial arrangement, what is taking place—driven by the thrust of the capital that is competing in an expanded space—is a generalized exogenous process of production adaptation. This again raises the question of whether the countries concerned will accept this generalized adaptation reactively or pro-actively.

An aspect which is of particular interest with regard to the local effects of MERCOSUR in some countries is the fact that the elimination of trade

⁸ The implementation of bioceanic corridors has considerable local territorial impacts in itself, but progress has been slow in this field because of financial and other restrictions.

barriers tends to bring about the full integration of border regions⁹ and to change the forces, and their magnitude, which promote agglomeration within national frontiers. Small and peripheral regions can join and form part of larger spaces, which operate as centres of agglomeration. In this respect, says Vaillant (1997), “the evolution of production specialization progresses freely ... so that other considerations begin to take on importance when deciding where to locate activities”. It is hardly necessary to note that in the special case of Chile, all its regions are close to its national borders, but this has not been internalized much in the vague official pronouncements on regionalization and development.

Globalization gives rise to new questions, as though it were a kind of Pandora’s Box. For example, it gives rise to new codes and a new geography (already described above), new trade patterns, new languages (or, rather, the consolidation of the meta-language of English), and new techniques for interconnection. As commonly understood, “code” is both a set of rules and precepts on some matter and also a book in which there is a list of words (in this case, the words most commonly used in trade), with an arbitrary set of letters or numbers placed opposite them. It serves for communication ... but in secret. In each of these meanings, it seems clear that globalization is introducing a new code—that of globalization itself—and without understanding or decoding this code it is not possible to benefit from this process.

In the light of the new codes of globalization, special attention must be paid to the role of teaching and education, in order to train people to understand the new types of logic involved, which is the only way to become the subject and not just the object of globalization: the only possibility of making globalization inclusive instead of exclusive, as it has been so far. Globalization produces more wealth than poverty, it is true, but it also produces more poor than rich.

A subtle but very important consequence of globalization is the incorporation of countries, regions, enterprises and persons into a world network which is taking shape as the main function generating economic growth in the twenty-first century: if you are in that

network you grow, and if you are not in it, you do not grow. But such a general assertion should be qualified by a more subtle aspect: it is not only necessary to be in the network, but it is also necessary to know how to behave there.

The internet is a clear illustration of that argument: you must be connected, beyond any doubt, but you must know how to use that connection. Whatever the form in which a local area is organized (commune, province, region), being institutionally connected to the internet is vital, but unless that area has the ability to create a web page it will be wasting almost all the potential of globalization.

The formation of new supra-national spaces under globalization involves a confrontation between two opposing tendencies in location. Haddad (undated) cites various arguments in favour of spatial reconcentration: i) faster innovation and shorter product cycles stimulate closer spatial proximity between R&D and manufacturing activities; ii) economies of labour in flexible production make wage costs a less important factor for possible transfer to areas with cheaper labour; iii) versatile and highly skilled labour is concentrated in the most complex centres, and iv) the need for physical proximity between producers and sub-contractors stimulates concentration. But Haddad himself also presents arguments in favour of transfers to peripheral areas: i) the disadvantages of distance have been reduced as a by-product of the scientific and technological revolution; ii) for historical and trade-union-related reasons, the labour force in more complex areas is more reluctant to accept labour flexibility; iii) there are potential markets in the less developed areas; iv) the big firms that locate plants in peripheral areas attract suppliers who locate their activities close to them, and v) the high level of international competition forces firms to seek lower and lower costs, including labour costs.

In short, it is difficult to make medium-term forecasts about the new geography that will result from supra-national agreements. As we already noted, there are tendencies which could be seen as supporting the generation of localized growth processes which could be assimilated to the forms of local growth analysed earlier, which would in turn form the basis for future local development, but there are also tendencies which favour increased concentration where it already exists, in line with the old principle that “concentration generates concentration”, which is all the more valid when there is clear evidence of increasing returns.

⁹ With regard to the subject of border regions, see for example Boisier (1987) and Torrijos (2000).

IV

What can the universities contribute to these processes?

Metaphorically, it could be said that globalization is a “black box”, and that in order to gain a good position in it, it is essential to have the key. This key is a cognitive framework —a framework of knowledge which is largely new and changes at a dizzy pace. Jacques Boudeville, the well-known French geographer, used to say that the university is the brain of every region, thus pointing even at that early stage to the need for every local area to receive, adapt and create knowledge. Today, when we speak of distributed knowledge, we would probably have to make the university share its leading position with a whole local system of knowledge and innovation (Méndez, 1993). At all events, however, the role of local universities continues to be of fundamental importance for supporting the development of their local environment.

Globalization is challenging the position of many institutions (norms, legal arrangements, laws and informal traditions) and organizations. Peter Drucker has said, perhaps exaggerating a little but nevertheless with a good deal of truth, that the universities will not survive the passage of the twenty-first century. This could be due to the enormous magnitude and exponential growth of knowledge in virtual networks; the use of virtual environments and platforms, such as computer programmes for the design of digital educational material; the use of distributed portfolios and equipment which make it possible to study at a distance, especially in the case of post-graduate courses, and above all – in my opinion – the very slow response to change displayed by these institutions, which go back to the eleventh century in the West.

Brunner (2002) says in this respect: *“The great risk is that in reality Latin America will be left out of the emerging global order of a knowledge-based economy and the information society, simply because we have been unable, in one of the key sectors for our incorporation into this new order, not only to make the necessary changes but also to make those changes quickly enough. Because today it is no longer a problem of saying whether we are going to change or not. Changing ten years after it was necessary is no longer any use; the situation is dramatic, and today,*

for the first time, the world is connected in such a way that the speed of processes of change is of vital importance. In the final analysis, there is only one test for this, and that is whether or not, in the higher educational institutions and the universities, there is a dynamic of change which prevails over a dynamic of conservation or corporate obscurantism, or a sense of fear of society” (quoted in Medina, 2002).

Brunner’s concern is confirmed by what I have called the universal law of decentralization: the efficacy and speed of decision-making of every public body is inversely proportional to the square of its distance from the national decision-making centre; this is an ironic way of referring to the fatal reluctance to change displayed by organizations – especially universities – which are located on the “periphery of the periphery”, that is to say, in distant provinces. There can be no doubt that in the context of globalization, any organization which is on the “periphery of the periphery” is obliged – if it wants to survive – to be at least twice as effective and fast as its more central competitors, which benefit much more from their own environment.

As globalization is intimately linked to the process of innovation, and this latter is the result of the expansion of knowledge, it seems clear that the basic condition for an organization —whether it is functional, like an enterprise or a university, or territorial, like a region or country— to be able to link up with the “centre” of globalization, that is to say, its dynamic knowledge-based core, is that it should possess the knowledge which is necessary and pertinent for that purpose. It has been said, for example, that for the Latin American countries the “window” of the manufacture of micro-electronic products has already been closed with a padlock whose key is in the hands of a few Asian and European countries, and that linking up to the dynamic core of globalization now involves opening even more complex “windows” in such areas as bio-genetics, services or new materials. But how can we do this without having the necessary knowledge?

As we already noted, assuming that the generation of this knowledge could still be solely the responsibility

of the universities would be a fatal error at a time when we are talking about distributed knowledge, knowledge communities, knowledge-based networks, inter-organizational synergy, and new types of learning in general.

If we admit, then, that although the universities of the new spaces such as the European Union or MERCOSUR still have an important role this is far from being as important as in the past, it is clear that the universities must be called upon to carry out to the full their central functions of research, teaching and extension, but in a new and extremely demanding context which is at once highly competitive but also cooperative, in which speed is a crucial element. For this purpose, the universities —and above all the subnational universities (regional, departmental, provincial and even community universities, as in the south of Brazil)— must reaffirm their local links and their pertinence (Boisier, 1994). Their local links, understood as their integration in a local community, are of key importance for securing their identity; in an open and competitive world, “trademarks” and “seals of origin” make a crucial contribution to distinguishing the units in question from thousands of competitors¹⁰ and are of key importance for obtaining the support and economic backing of the community, which “feels” that a university is really theirs when it has been able to highlight the fact that it “belongs”. “Belonging”, understood as the adaptation of a university’s activities to the short- and long-term needs of the area where it is located and to which it belongs socially, is related with “excellence”, which is another key word in this ambit. The University of Comahue (Argentina) or the Universidad Austral (Chile) or the University of Santa Cruz do Sul (Brazil) can hardly be centres of excellence in all disciplines. They must necessarily specialize in order to reach the status of a national university,¹¹ which is very important when seeking “clients” and resources.

According to Pérez (2004), the factors which either strengthen or weaken the universities’ contribution to the competitiveness of their environment are:

- The characteristics of the environment itself: level of economic and technological development; business and organizational environment; endowment and use of human capital; specialization of the economy and its technological intensity.
- The characteristics of the universities: human and financial resources; scientific specialization; organizational culture and prevailing values; efficiency, productivity and quality of teaching and research.
- The functioning of their links: research, development and innovation system; dissemination of results; financing of those activities.

The key question, of course, is what the universities can do to help their local area to attain a better position in globalization on the basis of knowledge. There are a number of answers to this question, as we can see below.

i) In matters of training

- Train more citizens to assimilate more knowledge and take part in a process of ongoing rapid change.
- Improve human capital by training more scientists and engineers with a strong sense of values.
- Improve the position of their graduates in the labour market by giving them a form of training which stimulates their business sense and prepares them to make a contribution to the innovation process.

ii) In research and development (R&D)

- Strengthen research: more and better-quality research.
- Strengthen the connection between innovation and the enterprise.

iii) With regard to structural change in the economy

- Support the creation of technology-based enterprises through “brooders” and other means.
- Support the technological improvement of existing enterprises and sectors through systematic technology transfer programmes.

iv) With regard to regional development

- Contribute to local and regional development strategies for their area here and now (knowledge plus values).

This latter point calls for more extensive, in-depth analysis. What does “contribute to strategies” mean? What could this contribution be? It seems obvious that it could not be limited to contributions at the microeconomic level, that is to say, at the level of

¹⁰ Nobody knows this better than wine producers.

¹¹ For example, a student who graduated with top honours from the secondary education cycle in Chile and who wanted to be a veterinarian would certainly choose as his first option the Universidad Austral de Chile in the city of Valdivia, because it is an establishment which occupies top academic status in that discipline in the country and therefore constitutes a “national university” in this field.

enterprises or activities; the meso-economic level would appear to be more appropriate for these contributions.

If we admit that both the economic growth and the development of a local area are collective and synergistic processes, it follows that their achievement presupposes some form of coordination of the various agents (decision-makers) involved, so that the resultant decision-making matrix will have a high degree of internal coherence and move in a pre-established direction.

This coordination is, by definition, horizontal and heterarchical, since otherwise it would be an imposition. How can we achieve this result? The answer seems to lie in the field of linguistics, that is to say, in the use of words, discourse and conversation in order to create a future and generate social consensus.

This can only be achieved through a complex process designed to introduce external energy into the collective body: a form of negentropy which we have called “cognitive synergy”, defined as scientific knowledge shared by the majority (although not necessarily all) of the social agents on the nature and dynamics of the processes of social change taking place in the local area: growth and development, which are structurally different but not entirely independent (Boisier, 2000). In short, this is equivalent to discovering and adopting two bodies of knowledge which “empower” the community to intervene here and now in the promotion of both growth and development.

Firstly, this involves the adoption on an everyday basis of a local territorial view which makes it possible to understand the local area, whatever its scale, as: i) a system; ii) an open system, and iii) an open complex system. This is not a very simple matter, but in reality there is nothing to invent from the cognitive point of view; it is only necessary to adapt knowledge which has already been created, albeit rejecting any kind of mental rigidity, of course.

Secondly, it is necessary to open a mental space for a second (new) cognitive framework which will make it possible to understand what are the current determinants of both growth and development, and under what kind of relationship between the system and the environment these objectives can be attained.

Very briefly, this leads to the assumption that the growth of a local area now depends on six factors: i) capital accumulation; ii) the accumulation of technical progress; iii) the accumulation of human capital; iv) external demand; v) the territorially differentiated

effects of the macroeconomic policy situation; and vi) the national or country project and the way it operates at the local level. As we noted earlier, as the decision-making agents are mostly from outside the local area, it is reasonable to consider that from this point of view subnational growth is essentially an exogenous process. It may be added, from the systemic point of view, that local growth is a function of the interaction between the system and its environment.

On the other hand, and considering the strictly endogenous characteristics of local development, it can be held that this process depends on the synopsis and synergy operating between six subsystems which belong to the local system in question and define its complexity: i) the accumulation subsystem; ii) the axiological subsystem; iii) the decision-making subsystem; iv) the procedural subsystem; v) the organizational subsystem, and vi) the subliminal subsystem. Development may be seen, then, as a systemic outcome or as a evolutionarily emerging property of a complex local system.

Thirdly, as already hinted on various occasions, both of the local processes of change are closely linked with the new local environment, in a complex set of processes which are taking place right now and are associated with the emergence of three new scenarios for local areas: a new contextual scenario (external and internal openness), a new strategic scenario (a new geography and new forms of management), and a new political scenario (modernization of the State and new functions for the subnational levels of government).

It seems obvious, even admitting *a priori* the validity of the foregoing hypotheses, that understanding these matters is indispensable for minimizing errors in interventions or, alternatively, maximizing their probabilities of success.

In practice, all this becomes a veritable *sine qua non* for local universities in their teaching, research and extension activities. They are the main, but not the only, institutions for developing these concepts, making them available in the form of up to date programmes for undergraduate and postgraduate courses—in the latter case, programmes dealing with local development—and spreading them to a broader public. Dror (1994) was quite right when he said that “We need democratic governing elites which are properly qualified for representing the future and the interests of mankind and for perfecting the links between knowledge and power. At the same time, every effort must be made to raise the level of popular understanding of such complex matters”.

V

Conclusions

The globalization process produces important changes in the geography of production, not only in manufacturing, but also in its broader sense which includes activities such as agriculture and tourism. The free circulation of capital in the new expanded trading spaces and the conversion processes that local areas are obliged to undertake, together with technological innovations, give rise to new maps of production, with their inevitable outcome of losses and gains.

The new activities in new spaces open up definite possibilities for the generation of growth processes which can serve as the basis and setting for more complex processes of endogenous local development. Whether those growth processes will correspond to the models mentioned earlier —industrial districts, geographical concentration of enterprises, endogenous

change— will depend on the nature of the local response, which will be influenced in turn by the catalytic effects that local research and development systems, especially those of the universities, can have in the local environment.

The role of the subnational universities is particularly important, and not only in terms of the transfer of technology to production and organizational processes. The crucial contribution of the universities must be through their role in the creation and dissemination of new, up to date and pertinent cognitive frameworks to provide scientific support to the interventions of society itself in the two processes of social change which are most important for society: growth and local development.

(Original: Spanish)

Bibliography

- Bauman, Z. (2000): *Globalization: The Human Consequences*, New York, Columbia University Press.
- Bateson, G. (2002): *Espíritu y materia*, Buenos Aires, Amorrortu.
- Bianchi, P. and L.M. Miller (1999): *Innovación y territorio*, Mexico City, Editorial JUS.
- Boisier, S. (1987): Notas en torno al desarrollo de regiones fronterizas en América Latina, *Estudios internacionales*, No. 78, Santiago, Chile, University of Chile, April-June.
- _____ (1991): *Política económica, organización social y desarrollo regional*, fifth edition, Santiago, Chile, Latin American and Caribbean Institute for Economic and Social Planning (ILPES).
- _____ (1994): *Universidad, desarrollo regional e inteligencia social*, *EURE*, vol. 20, No. 60, Santiago, Chile, Catholic University of Chile.
- _____ (2000): *Conversaciones sociales y desarrollo regional*, Talca, Editorial de la Universidad de Talca.
- _____ (2002): *El lenguaje emergente en desarrollo territorial*, Santiago, Chile (unpublished).
- _____ (2003a): *Desarrollo (local): ¿de qué estamos hablando?, El desarrollo en su lugar: el territorio en la sociedad de la información*, Santiago, Chile, Institute of Geography, Catholic University of Chile.
- _____ (2003b): Knowledge society, social knowledge, and territorial management, *Regional Development Studies*, vol. 9, Nagoya, Japan, United Nations Centre for Regional Development (UNCRD).
- _____ (2003c): *El desarrollo en su lugar: el territorio en la sociedad de la información*, Santiago, Chile, Catholic University of Chile.
- Brunner, J.J. (2002): Conclusions of the technical meeting on “El futuro de la educación superior en Colombia”, Bogotá, D.C., Asociación Colombiana de Universidades (ASCUN)/ Instituto Colombiano para el Fomento de la Educación Superior (ICFES)/Instituto Colombiano de Crédito Educativo y Estudios Técnicos en el Exterior (ICETEX) (draft).
- Buarque, S. (1999): *Metodología de planeamiento do desenvolvimento local e municipal sustentável*, Recife, Brazil, Inter-American Institute for Cooperation on Agriculture (IICA).
- Buitelaar, R. (2000): *¿Cómo crear competitividad colectiva?*, Santiago, Chile, ECLAC, January (unpublished).
- Dror, Y. (1994): *La capacidad de gobernar. Informe al Club de Roma*, Mexico City, Fondo de Cultura Económica.
- García Canclini, N. (1999): *La globalización imaginada*, Buenos Aires, PAIDOS.
- Garofoli, G. (1995): *Desarrollo económico, organización de la producción y territorio*, in A. Vázquez-Barquero and G. Garofoli (eds.), *Desarrollo económico local en Europa*, Madrid, Colegio de Economistas de Madrid.
- Guimaraes, J.P. (1997): Local economic development: the limitation of theory, in B. Helmsing and J. Guimaraes (eds.), *Locality, State and Development*, The Hague, Institute of Social Studies (ISS).
- Haddad, P.R. (undated): *Relatório sobre o desenvolvimento humano do MERCOSUL*, Belo Horizonte, Brazil.
- Helmsing, B. (2000): *Externalities, Learning and Governance Perspectives on Local Economic Development*, The Hague, Institute of Social Studies (ISS).
- Krugman, P. (1991): *Geography and Trade*, Cambridge, Massachusetts, MIT Press.
- Krugman, P. and M. Fujita (2004): The new economic geography: past, present and the future, *Investigaciones regionales*, No. 4, Barcelona, Asociación Española de Ciencia Regional.
- Maddison, A. (1991): *Historia del desarrollo capitalista. Sus fuerzas dinámicas*, Barcelona, Ariel Historia.

- Medina, J. (2002): *Por un nuevo liderazgo para facilitar el desarrollo de comunidades y cultura del conocimiento en la formación avanzada*, Cali, Colombia, Universidad del Valle (unpublished).
- Méndez, R. (1993): Las políticas regionales de innovación en la promoción del desarrollo, *EURE*, vol. 19, No. 58, Santiago, Chile, Catholic University of Chile.
- OECD (Organisation for Economic Co-operation and Development) (2001): *Devolution and Globalisation. Implications for Local Decision-Makers*, Paris.
- Paz, O. (1993): *La llama doble*, Barcelona, Seix Barral.
- Pérez, F. (2004): *La mejora de la competitividad: la contribución de las universidades*, paper presented at the meeting on "La competitividad en la sociedad del conocimiento y las instituciones de ciencia y tecnología" (Valencia, Spain, 31 May 2004).
- Perroux, F. (1950): Economic space: theory and applications, *The Quarterly Journal of Economics*, vol. 64, Cambridge, Massachusetts, The MIT Press.
- Porter, M. (1998): Clusters and the new economics of competition, *Harvard Business Review*, vol. 76, No. 6, November-December, Boston, Harvard Business School.
- Ramos, J. (1997): *Una estrategia de desarrollo a partir de los complejos productivos (clusters) en torno a los recursos naturales*, LC/R.1743, Santiago, Chile, ECLAC.
- Reich, R. (1993): *El trabajo de las naciones. Hacia el capitalismo del Siglo XXI*, Buenos Aires, Javier Vergara Editor S.A.
- Roelandt, T.J.A. and P. den Hertog (1999): Cluster analysis and cluster-based policy making in OECD countries: introduction to the theme, *Boosting Innovation: the Cluster Approach*, Paris, Organisation for Economic Co-operation and Development (OECD).
- Silva, I. (2003): *Disparidades, competitividad territorial y desarrollo local y regional en América Latina*, "Gestión pública" series, No. 33, LC/L.1882-P, Santiago, Chile. United Nations publication, Sales No. S.03.II.G.47.
- Simmies, J. (1997): Innovation, Networks and Learning Regions?, *Regional Policy and Development*, No. 18, London, J. Kingsley Publishers.
- Storper, M. (1997): *The Regional World*, London, The Guilford Press.
- Torrijos, V. (2000): La diplomacia centrífuga. Preámbulo a una política exterior de las regiones, *Desafíos*, No. 2, Bogotá, D.C., Universidad del Rosario.
- UNDP/ILO/UNOPS/EUR (United Nations Development Programme/International Labour Organisation/United Nations Office for Project Services/EUR) (2002): *Las agencias de desarrollo local*, New York.
- Vaillant, M. (1997): Pradera, frontera y puerto, otra vez, *Cuadernos del CLAEH*, No. 78-79, Montevideo, Latin American Centre for Human Economy (claeH).
- Vásquez-Barquero, A. (1999): *Desarrollo, redes e innovación*, Madrid, Ediciones Pirámide.