

BEYOND THE REGIONAL LIFEWORLD AGAINST THE GLOBAL SYSTEMWORLD: TOWARDS A RELATIONAL -SCALAR PERSPECTIVE ON SPATIAL-ECONOMIC DEVELOPMENT

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ABSTRACT. Recent writings in economic geography have questioned the way the literature has featured the regional scale in discussing issues of innovation and economic competitiveness, and called for a different conceptualization of scale. This paper takes up the challenge to go beyond what is called the 'regional gaze', by presenting a critical review of the regionalist literature and outlining an alternative approach. The critique of the 'regional gaze' is developed in two steps: first, by discussing the influence of strategic management discourse; and second, by invoking the twin concepts of lifeworld–systemworld. This critical account results in identifying various windows for elaborating an alternative conceptualization of the relationship between economic development and space. A first alternative is found in the dimension of the 'non-local' or 'extra-local', but the significance of these notions is considered to be limited. Drawing on recent work on scaling and the 'politics of scale', a relational-scalar approach is proposed that focuses on the question of how scalar qualities are socially produced and contested. What is called for is a geographical imagination that sees innovation and economic competitiveness as braced on spatialized networks rather than bounded territories scaled at the regional level. An illustration of how such a perspective may be elaborated is found in recent discussions on the concept of 'global production networks'.

Introduction

Recent geographical work on innovation and economic development has increasingly focused on the issue of scale. The interest in scale is part of an ambition to develop a more differentiated view of spatialization of innovative practices and economic competitiveness, a view that goes beyond the prevalent emphasis on the region as a natural site of innovation. According to critics, this emphasis on the region, advocated by what will be referred to as the 'regionalist literature', yields a too narrow and too predetermined perspective on innovation and economic development (Bunnell and Coe, 2001; Lagendijk, 2001). The meaning of the regional scale should not be generically presupposed, but, in each situation, be considered as an object of enquiry. In-

deed, what appears to be ironic is that the regionalist literature, while acknowledging heterogeneity of knowledge, assets, organizations and institutions, has tended towards a rather generic image of the region and its scale-specific qualities. As Rigby (2000, p.215) observes: 'we've accepted firm heterogeneity, but appear to have too readily adopted a model of the representative region, an innovative territory whose technological dynamism and growth rest upon a rather narrow set of processes and supporting characteristics.' Undoubtedly, the regionalist literature has gone a long way to explore and analyse region-internal characteristics, picturing a regional lifeworld of interaction, collaboration, embedding, associations and institutional thickness. In doing so, however, less attention has been paid to the concrete processes of scaling that underscore the 'scalar content' of the region.

Against this background, the aim of this paper is to contribute to an alternative perspective that shifts the focus from the region as a 'bounded space' to a relational-scalar perspective on spatial economic development. The argument is elaborated in five steps. First, drawing from earlier critical analysis (Lagendijk, 2001), shortcomings found in the regionalist literature are discussed and put in to context. The starting point, elaborated in the following section, is that the regionalist literature has been inspired, directly and indirectly, by basic notions germane to strategic management thinking. In particular, this involves an identification with the economic performance of a focal organization or grouping (such as a firm, or group of firms) within a wider, competitive environment. A basic ontological distinction is thus made between regions as 'competitive sites' and global markets as 'arenas of competition'. The third section further substantiates this distinction, by building a link to the twin concepts of 'lifeworld' and 'systemworld'. The argument here is that the literature, by juxtaposing re-

gional 'lifeworlds' with global 'systemworlds', endorses the prevalent emphasis on the region as a natural site of innovation and competitiveness' labelled the 'regional gaze'.

The second part of the paper presents clues as to how the literature may move beyond the 'regional gaze' by developing an alternative conceptualization of the relationship between innovation, economic development and space. This starts with reviewing the recent discussion on the meaning and significance of the 'extra-local' or 'non-local'. A major clue is found in the concept of 'politics of scale', which is discussed and elaborated in the following section. Building on Brenner's (2001) 'plural' version of 'politics of scale', and Cox's (1998) work on spatial dependency, the contours of a 'relational-scalar perspective' are outlined that defies simple associations between scales and economic processes. The relevance of such an approach is illustrated by referring to the recent work on 'global production networks'. This conceptual basis may inform future conceptual and empirical work on issues of innovation and spatial-economic development.

The regional gaze and managerial discourse

Inspired by work on flexible specialization and industrial districts in the 1980s, the 1990s became the 'decade of the region' in debates on economic geography. Storper (1997, p. 3) praises the region 'as a fundamental unit of social life in contemporary capitalism, equivalent to say, markets, states or families, ... a fundamental motor process in social life, on the same level as technology, stratification, or interest seeking behavior'. The emphasis on learning, together with the notion that learning requires interaction and this interaction is facilitated by proximity, meant that the region came to be seen as a significant site of economic innovation and production. In Oinas' prose, the 'received wisdom' of the 1990s may be summarized as follows:

Under the condition of *globalization ... collaborating and competing ... flexibly specialised and networked actors ... are embedded in local social relations ... characterized by institutional thickness ...*, where interaction is governed by conventions ... and results in *learning ...* which takes place in proximate relations due to its *tacit* elements ... and enables the creation of *unique assets for competitiveness ...* of both firms and their regional environments.

(Oinas, 1999, p. 365; *Italic typeface bold in original*; see original for references between brackets)

In similar vein, Lagendijk (2001) argues that the story of regional salience is grafted on to three propositions, namely:

- the significant role of *business interaction* and the *business environment* in sustaining business innovation and competitiveness;
- the importance of the *spatial* dimension, through benefits stemming from *proximity, spillovers* as well as *embedding*;
- the effectiveness of the region as a level of *governance* and *agency* to foster interaction and collective action.

As a result of this academic debate, the region appears to have emerged as an economic actor in its own right. The overall economic performance of a region is labelled under the heading of 'competitiveness'. This competitiveness is not only seen as the aggregate performance of all local firms and branches, but as a variable that may be explained in terms of regional characteristics. 'Innovative' regions are more competitive; regions that suffer from lock-in are less so. Regions with poorer capabilities are prone to be outperformed by others (Steiner, 1997). Regional capabilities, regional institutions and regional governance capacities, accordingly, have come to define the regional economic performance. Regions are considered as 'learning regions' or 'innovation systems' in their own right (Edquist and Rees, 2000). The literature that advocates these ideas, in line with Oinas' quote above, will be denoted here under 'regionalist literature'.

By concentrating on the bounded space of the region as a fundamental site of innovation and competitiveness, the regionalist literature has produced a binary worldview that separates the regional world 'in here' from the global world 'out there' (Lagendijk, 2001). Grafted on to a discourse of globalization, the prominent storyline is that 'in here' has to accommodate the pressures from 'out there' (Fagan, 1997), thus achieving lasting competitiveness under the condition of globalization. 'In here' and 'out there' appear as existentially different. 'In here' is the cradle of the unique assets for competitiveness as mentioned in Oinas' quote above. 'In here' embodies the realm of proximate relations that foster close interaction, the transfer of tacit knowledge and, through that, the creation of non-

ubiquitous, 'non-cosmopolitan' knowledge (Storper, 1997; Maskell, 1999). 'In here' contains a social and communicative world of agency, voice (Storper, 1997), collaboration and collective action, geared towards the securing of local competitiveness and wealth creation (Florida, 1995). Innovative capabilities and competitiveness are sustained by webs of institutions, norms and routines yielding a cooperative 'cultural' superstructure promoting learning and public-private consensus (Cooke and Morgan, 1998), also described as 'synekism' (Soja, 2000). 'Out there', on the other hand, represents a world of competition, in which extra-local relationships, facilitated by global communication infrastructures, induce the rapid imitation of competitive assets, hence posing a constant threat to the competitive edge of businesses and regions (Oinas and Van Gils, 2001, pp. 61–3). 'Out there' contains the flows of codified and 'cosmopolitan' knowledge across the globe, spreading global, hegemonic standards of production, consumption and transaction across the globe. 'Out there' is ruled by the harsh logic of global market competition and capital accumulation. In this binary logic, regions are thus conceived as spatially bounded entities that aim at performing better in a competitive global scene (Leyshon, 1997).

What emerges from this regional positioning is that the reference to the region should not be read merely as a convenient short cut to a conglomeration of interacting firms, institutions and authorities. It is the region *itself* that conveys much explanatory power. The region, by its very nature, provides the environment for proximate relations to develop and flourish. Because of the dependence of firms on their proximate environment for learning as well as productive assets (propositions 1 and 2 above), core economic assets may be seen as pertaining to the region. So regions contain repositories of economic capabilities and competencies (Lawson, 1999), which are enacted through local firms. Indeed, in its strongest versions, the regionalist literature tends to bypass the firm as an autonomous unit, and turns into a competitive unit itself. Firms merely represent the region's conduit to competitiveness, subject to the influence of regional governance capabilities (proposition 3).

While turning into a competitive unit, regions have also acquired unique identities. It is not only the regional level, in a general sense, that has received so much attention, but the developments of series of particular, named regions. Much applied regionalist work is engaged with the development

of a particular, named region, or set of regions, in the sense of Wales as a 'learning region', or Lund as a 'regional innovation system', or Arizona as a bundle of industrial clusters (cf. Waits, 1992; Morgan, 1997; Jonsson, 2001). Academic researchers often play a substantive role in such labelling. Indeed, in many cases, researchers turn into the self-confident advocates of their case study region, often their home region. The main normative questions are: How could my (case) region become more successful, or what can we learn from my (case) region's success for other regions? Even more critical regionalist approaches tend to be focused on the issue of 'success', comparable to business studies oriented towards issues of 'strategic choice' (Scott, 1992).

The trend in the regionalist literature to search for the factors explaining the success of particular regions, and to draw normative conclusions from that for other regions, parallels the development in another academic discipline, namely strategic management. Admittedly, regionalist thinking has taken inspiration from many disciplines, including socio-economics, institutional approaches, sociology and innovation studies, which have helped to create a rich and extensive image of regional development in the context of globalization. However, especially regarding the way the regional position in the global economy is approached, one source of inspiration appears to stand out, namely that of strategic management (Lagendijk and Kramsch, 2001). In effect, the strong influence of strategic management is a more general trend that has also affected other discourses dealing with globalization and competitiveness. According to Leyshon (1997), the strategic managerial discourse has even had a stronger impact on these discourses than, for instance, political accounts, although the latter have exerted some influence notably through the work on geo-economics.

Managerial discourse is concerned with the question of business success in a global, competitive market context. The discourse focuses on the performance of individual units, i.e. firms, from small workshops to giant corporations, sometimes extended to spatial units from cities to nations (cf. Porter, 1986). While the discourse has ramified in many ways, inspired, in particular, by development in organization theory (Hatch, 1997), the methodological baseline is the distinction between organizations and their environments. Various shifts and changes have occurred, nevertheless, in how these categories have been defined and related.

One recent shift of importance has been that in business strategy thinking from a more external fo-

cus on market position (outside–in) to an internal view of resources and competencies (inside–out) (De Wit, 1994). The first approach (outside–in), also called the positioning school, based on Michael Porter's earlier work, basically postulated that a competitive position could best be achieved by an evasive strategy; that is, a move towards a market position which minimizes the rivalry from other firms. This means that the industry and its market structure largely define and delimit the strategic options open to single firms. Porter (1986) has scripted this perspective through the notions of 'cost-leadership', 'differentiation' and 'focus'. The business environment is generally conceived as given, anonymous and hostile, which needs to be accommodated by an appropriate strategy of positioning to dampen competitive pressures. The firm, on the other hand, is interpreted as a sharply delineated and manageable unit.

The second perspective (inside–out) places much emphasis on the capabilities of individual firms to change their competitive position through resource development and the (re)shaping of competencies. This perspective is generally labelled as the resource-based approach, and has achieved most practical significance through Prahalad and Hamel's (1990) successful advocacy of their 'core competencies' script. The emphasis on shaping and exploitation of business resources and core competencies has also contributed to thinking about the role of learning and innovation at the level of the firm (De Wit, 1994). Moreover, the resource-based approach has drawn attention to the way resources are rooted in business organizations and business networks. Barney and Hesterly (1999) stress that resources are nurtured in complex social-organizational settings, which makes them heterogeneous and, to a large extent, immobile. In effect, although it is often possible to identify the resources that underpin a business's performance, it is very difficult to copy the resource to the context of another organization. Barney and Hesterly (1999) thus stress the link between the resource-based approach and studies on organizational behaviour and culture. In contrast to the positioning school, the resource-based approach does not interpret the environment as given and hostile, but as being constituted and changed through the aggregate activities of resource-creating businesses.

The regionalist literature has been inspired by the strategic management literature in two broad ways (for a more detailed discussion on this link, see Lagendijk and Kramsch, 2001). First, and most direct-

ly, the literature has absorbed core ideas from the resource-based approach including the notion of resource heterogeneity. This is endorsed through the work of Maskell (1999), Oinas (1998, 1999) and Lawson (1999), but is also evident in work on learning regions and regional innovation (Florida, 1995; Edquist and Rees, 2000). What is taken on board in the regionalist literature is the idea that resources are situated and rooted in complex and dynamic sets of social relations and conventions that are region-specific (cf. Storper, 1997; Scott, 1999; see also Oinas' quote above). Resources are contextually defined and hence heterogeneous, not only between regions but also possibly within regions (Oinas, 1999). Because of such context-specificity and heterogeneity, opportunities for and effectiveness of interregional learning are generally limited (Haskink and Lagendijk, 2001). Yet the creation of heterogeneous resources, in the form of 'non-cosmopolitan' and 'non-ubiquitous assets', presents a vital basis for enduring competitiveness. Competitiveness is essentially based on 'heterogeneity' and 'non-imitation' (Maskell, 1999, pp. 42–3).

The second, more indirect source of inspiration is manifested through the way the regionalist approach has adopted a binary worldview in which the unit obtaining a competitive position (i.e. the region) is set against a global, impervious environment. In line with the positioning school, the global environment exerts strong competitive pressures through the existence of permanent drives to transform emerging advantages into codified, standardized, and therefore ubiquitous assets (Storper, 1997; Maskell, 1999). In doing so, the regionalist discourse appears to endorse a worldview with a fundamental difference between the processes and actions underpinning innovation and *competitiveness*—essentially based on unique assets moulded through individual and collective webs of social interaction—and the processes and forces engendering competition—manifested in the global market environment. Moreover, these two worlds are associated with distinct spatial scales: innovation and competitiveness are the prerogative of local/regional sites, while competitive pressures correspond primarily to the global level. These two binary matches will be discussed further in the following section.

Lifeworld vs. systemworld: a critique of the regional gaze

The management and regionalist literature both seem to adhere to a perspective on economic devel-

Table 1. Competition vs. innovation-competitiveness in the light of systemworld-lifeworld.

Category	lifeworld (experience, voice, agency, interaction)	systemworld (own logic, powers, forces)
Competitive sites	(1) 'Voice', collaboration, collective learning 'in here'; cultural variation; heterogeneity of resources/assets (non-cosmopolitan);	(2) Contractual dimension of networking; patenting; formal aspects of innovation systems; path-dependency and lock-in
Arenas of competition	(3) Markets enacted and regulated; market governance	(4) Competitive pressures 'out there' stemming from forces of standardization, codification and ubiquitification (cosmopolitan assets)

Bold typeface: feature in regionalist discourse

opment, in which economic units (firms, groups of firms, bounded territories) gain a competitive position in a competitive market environment. The underlying image is that of 'sites of competitiveness' in 'arenas of competition'. Although there is ample reason to problematize this dual image, given the extensive literature on 'competitiveness', that is not the aim of this paper. Rather, what will be discussed here is the way the regionalist literature has understood this image in two ways: first, in terms of actions, processes and forces, and second, in terms of spatialization and scaling. To elaborate on these themes, this section will make use of Habermas' (1984) conceptual pair of lifeworld vs. systemworld.

The previous section has already summarized, in broad terms, the binary worldview prevalent in the regionalist literature, in which a regional world 'in here', through shaping unique assets on the basis of innovation, fends off competitive pressures stemming from the global world 'out there'. This binary worldview may be placed in context by comparison with other binary categories that characterize recent 'soft' work in economic geography, notably the culture-economy debate. Sayer (2001) invokes Habermas' distinction between the lifeworld and systemworld to reflect upon the actual trends in political economic and geographical discourse. The lifeworld contains the world of lived experience, enabled and governed primarily by communicative forms of rationality (Habermas, 1984), starting from the perspective of the individual or social group. Sayer (2001) expands Habermas' interpretation of the lifeworld view by including non-cognitive, embodied elements that feature in daily patterns of interaction. The systemworld, in contrast, is characterized as relatively formal, operating through its own codes and logic, with its own momentum and emergent powers. The systemworld may be primarily associated with forces and powers, such as market forces, that escape and go beyond the conscious action of individual agents. The

systemworld is enabled and governed by instrumental and strategic forms of rationality, institutionalised through organizational categories, structures, and codes. The systemworld operates from a system perspective, as exemplified by the state bureaucracy and the market economy. The systemworld is characterized by drives towards standardization and homogeneity, whereas the lifeworld features uniqueness and heterogeneity.

It is not the intention here to discuss the deeper meaning and value of the twin concepts of lifeworld-systemworld; rather, these concepts are considered as useful metaphors for assessing prevalent thinking in the regionalist literature. Table 1 provides the basis of such an assessment. The table crosses the two discursive categories of economic development distinguished above (competitive sites vs. arenas of competition) with the twin concepts of lifeworld-systemworld, resulting in four cells (1 to 4).

In terms of the table's conceptual categories, the binary worldview prevalent in the regionalist literature fits largely in to two of the four cells (shaded cells). Through emphasis on 'agency', 'voice', 'associations', 'local conventions', 'governance', 'innovative milieux', the performance of 'competitive sites' is elucidated primarily in terms of a lifeworld perspective (Cell 1). The 'arenas of competition', on the other hand, characterized by relentless competitive pressures, correspond to a systemworld perspective (Cell 4). As argued in the previous section, a similar positioning applies to the strategic management literature. The question arises now to what extent this double association of, on the one hand, 'competitive sites' with a lifeworld perspective, and, on the other, 'arenas of competition' with a systemworld perspective, is warranted. In effect, literature on markets and competitiveness provides ample reason to challenge this position, suggesting a more balanced account.

In the case of conceptualizing the region as a nat-

ural site of innovation and competitiveness, various authors have criticized the almost exclusive emphasis on 'soft' aspects (lifeworld) of economic development (Cell 1). There is strong evidence, for instance, that in innovative clusters in high-tech activities (e.g. Silicon Valley), especially in more mature phases, firms are heavily concerned with the legal-contractual side of interfirm transacting (Gray *et al.* 1996). Even when dealing with allies, firms continue to secure their interests through patenting and other 'hard' forms of codification. The way market regulation and other institutional factors of a more formal nature facilitate processes of collective learning is also emphasized within the 'systems of innovation' literature (Edquist and Björn, 1997). This includes the education system, labour market regulation, regulation of standards, intellectual property rights regime, laws and routines on business formation and closure, and so on. Gertler (1999) argues that much of the literature on the role of regions as well as large corporations in economic development dramatically undervalues the significance of such macro-regulatory elements. Gertler also points out that these structures continue to be shaped largely at the national level, as discussed, for instance, in the literature on national innovation systems. Accounts of regional innovation systems are generally more oriented towards the 'soft' side of interfirm and interorganizational relations (Cooke and Morgan, 1998), disregarding major macro-regulatory elements.

Together, these arguments suggest that a lifeworld perspective on innovation and competitiveness (Cell 1), however valuable in itself, needs to be complemented by a systemworld perspective (Cell 2). On the one hand, attention to systemic factors is due because of the way 'competitive sites' are embedded in macro-regulatory environments and legal settings that have a strong impact on their mode of operation. On the other hand, in time, such sites themselves bring about emerging properties with their own logic and forces. Interest in such systemic properties may also draw the attention to political-economic questions concerning the distribution of wealth and power, issues which, according to critics of the regionalist literature, 'soft' approaches tend to ignore (Lovering, 1996; Hudson, 1999). Indeed, a problem with soft approaches is that by alluding to an image of regionally spatialized solidarity (Van Houtum, 2002), they picture an imagined world of internal harmony naturally shielded from forces of polarization and domination.

In turn, when conceptualizing 'arenas of compe-

tion', i.e. competitive markets, there are various arguments that draw more attention to a 'lifeworld' approach (Cell 3). Undoubtedly, markets are characterized by systemic processes of competition (Cell 4). But markets should not be interpreted as given systems with competition as a natural property. Rather, competition represents an emergent property that accrues from transactional and regulatory behaviour by collectives of market participants, framed through the regulatory attempts and external incentives provided by authorities, academics and other actors. Promoting a sociological underpinning of market theory, White (1981, p.519) argues that '[a] market is an 'act' which can be 'got together' only by a set of products compatibly arrayed on the qualities consumers see in them'. In the words of Callon (1998, p. 45): 'competition is not the starting but finishing point, of a long structuring process dominated by (largely asymmetric) rivalry between calculative agents.' Hence, competition is not a natural state, but a highly context-specific, and political process, that must continuously be enacted and governed in order to keep performing. It requires an extensive physical and institutional infrastructure to transmit information on products, qualities, prices and ordering, and to secure a certain degree of stability and order. Institutional accounts of market development have paid much attention to the routines, conventions and regulations that provide appropriate setting for market performance (Hodgson, 1994; Langlois and Robertson, 1995).

Sociological and institutional accounts on competitive markets thus endorse a stronger 'lifeworld' perspective on market development, corresponding to Cell 3 in Table 1. Such a project has also been advocated by Hodgson, most prominently by his plea for 'bringing life back to economics' (Hodgson, 1993). However, recognizing the value of a lifeworld perspective for understanding the development of 'arenas of competition' (Cell 3) does not diminish the significance of a systemworld perspective (Cell 4). Once established, economic markets acquire system-like properties, with a certain degree of autonomy and self-perpetuation. In Sayer's (2001) view, the systemworld dimension of the economy emanates from the lifeworld, but cannot be reduced to it. In Sayer's view, moreover, systemworld and lifeworld characteristics do not represent distinct ontological entities. Rather, they should be understood as interrelated dimensions through which complex phenomena such as the development of competitive markets may be examined. In terms of Table 1, then, the conclusion is that not

Table 2. Systemworld vs. lifeworld against global vs. local

Scale	Lifeworld	Systemworld
local/regional	(1) Locally embedded communication and ‘voice’, ‘packages of conventions and relations’; localized tacit/non-cosmopolitan knowledge	(2) Localized competition, local politics of accumulation, allocation and (re)distribution
global	(3) Market conventions ‘at a distance’; global networks as chains of communication and social interaction; spatial and sectoral variation	(4) Integrated competitive markets, global system of accumulation, ubiquity of codified knowledge

Bold typeface: feature in regionalist discourse

only should we pay due attention to actions and processes in Cell 3, we should also seek to understand how these actions and processes relate to structural properties emerging in Cell 4.

The prevalent associations in the regionalist literature as depicted in Table 1 also inform the perspective on the spatial dimension of innovation and competition. As argued above, and illustrated by Oinas’ quote at the start of the first section, the regionalist literature articulates a strong local–global divide. The use of the lifeworld–systemworld conceptual pair may shed further light on this position. The argument is summarized in Table 2. As in the previous table, the shaded cells denote the core associations prevalent in regionalist discourse: the lifeworlds underpinning innovation and competitiveness unfold at the regional level, while the systemworld supporting ‘arenas of competition’ proliferate at the global scale. Some authors acknowledge that this association may need some qualification, although they uphold the overall conclusion. Storper (1997, p. 71), for instance, asserts that:

Noncosmopolitan knowledge is not necessarily associated with proximity or localization. The two are theoretically distinct: noncosmopolitan knowledge can be ‘localized’ in a restricted technological, organizational, or professional ‘space’, that is, in certain interpretative networks that transcend local geographical space.

However, this qualification is countered immediately by the following comment:

‘For the moment, it has not been shown that relations of proximity can be transcended for many important knowledge-developing and -using activities.’

Hence, despite the possibility of transcending lifeworld processes (corresponding to Cell 3), the

region represents the primary ‘site of important stocks of relational assets’ developed through local communication and ‘voice’ (Cell 1), needed to ‘keep outrunning the powerful forces of standardisation and imitation in the world economy’ (Storper, 1997, pp. 44, 265) (cf. Cell 4). Note how typical systemworld characteristics of the market economy (codification, standardization, imitation) thus translate into a spatial notion of ‘ubiquity’ against which the concept of the ‘regional world’ is set. Similarly, Gertler (2001, p. 18) asserts that despite his appreciation for the interest in non-local relationships in innovation and the transfer of best practice, ‘such transcendence of spatial proximity seems improbable.’

Quoting Fagan (1997), the prevalent association may be criticized as follows: ‘it is a mistake to represent ‘global’ as the scale most obviously ruled by general (economic) laws of capitalist society while ‘local’ is seen as unique, chaotic, parochial and the realm of culture and local agency’. Instead, what is needed is a more articulated perception in which lifeworld and systemworld aspects unfold at both the regional and the global scale. The region contains systemworld aspects in that many of the ‘market logic’ mechanisms also are effective at the regional level, as are the dynamics and politics of capital accumulation (Table 2, Cell 2). In addition, many of the alleged lifeworld aspects within the region, such as the creation of collaborative networks, are conditioned and shaped by ‘systemworld’ mechanisms of global competition. The lifeworld dimension, on the other hand, extends to the global level, for instance, in the way industries spanning the globe depend on networks of communication, institutions and social interaction, on hypes and buzz, on mixes of collaboration and competition, comparable to what happens at other spatial scales (Cell 3). At the level of individual agents, lifeworlds have become globalized through the way their lived experience draws from events and processes across the globe (Dürschmidt, 1997). Against this back-

ground, a regional analysis that juxtaposes a regional lifeworld against a global systemworld will easily overlook essential elements that may help to clarify the spatiality of innovation and economic development. These elements will be further discussed in the remainder of this paper.

Out of the regional gaze: turning to the extra-local?

Responding to accusations of spatial determinism and fetishism, the literature on regional development has recently widened its spatial scope. For instance, Oinas (1999, p. 365) pleads for more attention for extra-local relationships: 'the creation of knowledge (learning) might be best viewed as a result of a 'combination' of close and distant interactions'. (Oinas, 1999, p. 365). Other authors have also advocated the study of the 'non-local' (Malecki *et al.* 1999; Amin, 2000; Gilly and Torres, 2000), partly on the basis of theoretical arguments, and partly on the basis of practical thought: 'strong local networking may be less common—and necessary—than had been thought' (Malecki *et al.* 1999, p. 262). Similarly, Ernst (1999, p.28) asserts that the development of new communication technologies and global information management have 'substantially expanded the scope for interactive learning without co-location'. This section will discuss the way the interest in extra-local (or non-local) may address the issues raised above.

The critical question is thus: To what extent does the addition of the extra-local category improve our understanding of the spatiality of innovation and competitiveness? How does it help us to overcome the 'regional gaze'? It is clear that interest in the extra-local may accommodate accumulating evidence that processes of knowledge transfer and the creation of competitive alliances transcend the regional level. Such evidence is provided, for instance, through work on the spatial dimension of knowledge creation (Karlsson and Manduchi, 2000). Karlsson and Manduchi put forward a range of conceptual and empirical arguments supporting the notion that knowledge spill-overs are less spatially bounded than suggested in much of the literature. Likewise, managerial studies seem to point to a reducing significance of spatial constraints. This reduction is not so much due to changes in the friction of distance itself, but is caused by the fact that other factors and concerns bearing on interfirm and inter-organizational linkages have become more important (Kanter, 1995; Lagendijk, 1999). Triggered by

increased levels of specialization and internationalization, firms will look further afield to find partners with the right capacities for, to give some examples, co-development, logistics, marketing and so on. Distance is just one of the dimensions of deliberation among many others. A major danger thus lurks in overspatializing social and economic relations (Brenner, 2001).

Indeed, the most serious argument stems from geography itself, and concerns our understanding of space and distance. Back in 1985, Sayer (1985) argued in his seminal paper 'The difference that space makes' that the meaning of spatial relations depends on the particular objects involved, although space is not merely reducible to those objects. While space thus bears a certain autonomous effect, one should always account for the range of contingencies involved when addressing a practical question around distance and proximity. This, in essence, problematizes notions of 'local' vs. 'extra-local' (or 'proximity' vs. 'distance') as general categories. In the words of Brenner (1999, p. 600): 'the distinctively scalar 'content' of the sociospatial relations cannot be presupposed, but must itself be treated as an object of inquiry.' The problem is that work on the spatial dimension of social relationships often takes insufficient account of the significance and impact of other dimensions (social, economic, institutional, organizational), and how these dimensions are intertwined: 'the issues of geographical scale is closely intertwined—generally in theoretically unacknowledged or underspecified ways—with other, equally significant dimensions of social spatiality' (Brenner, 1999, p. 600).

The question is to what extent the attention to the extra-local can meet this challenge. What the literature on the 'extra-local' generally upholds is a substantive distinction between local and extra-local. The message is that, yes, the extra-local should be accounted for, but it comes as a supplement to relationships and properties pertaining to the local level (see e.g. Oinas, 1999, Table 2). Hence, although it opens the door to a more nuanced perspective on the spatiality of innovation, the binary position remains intact. In terms of Table 2, the interest in the extra-local gives credence to Cell 3, but does so as a supplement to cover observations which cannot be properly explained in terms of the concepts represented by Cell 1. The issues of spatiality and scale itself are not problematized.

Other authors have suggested a different way out of the regional gaze by invoking a network approach. Following the work of Thrift and Olds

(1996), Bunnell and Coe (2001, p. 578) advocate a 'move away from the topological presupposition of that of the bounded region to that of the network.' Through linking people and artefacts, networks provide an appropriate setting for close interaction, the exchange of tacit knowledge and collective action. Networks provide proximity, not necessarily in a spatial sense, but in a cognitive and institutional sense: 'In its institutional dimension, proximity results in an institutional framework for interaction: shared representations, rules and norms, cognitive frameworks as well as formal institutions that stabilise the context of interactions.' (Burmeister, 2000, p. 63; see also Bunnell and Coe, 2001; Gertler, 2001). Obviously, many regions harbour such networks which underpin their capacity for collective learning and innovation. But equally, there are many networks providing institutional proximity transcending the regional scale, such as national and international business networks, international technological alliances and so on. Such networks remain spatialized, but they are not confined to certain scales. Innovation should not be 'considered in the context of an anarchic, placeless space of flows' (Bunnell and Coe, 2001, p. 578), but in the context of networks that connect different places across the globe. Contours of such a perspective are introduced in the next section.

So what remains of the region as a bounded space in terms of innovation and competitiveness? In effect, this notion still has certain relevance. As argued thus far, the regional scale is not inscribed with natural proximity effects and associational capacities. However, the region may present a framework of collective action, based on local institutional capacity combined with the recognition of local identities and the pursuit of local interests, and can strive for a certain degree of economic coherence and collective strategic potential (Cox and Mair, 1991). These identities and interests may be largely of an imagined nature (Van Houtum, 2002). Against such a background, regional development projects should be associated with politics of territorial identity, localization and scale rather than as products of a spatial logic of localized learning. In other words, regional development projects do not represent a natural response to new spatial-economic imperatives. Rather, they are conjured in existence on the basis of political alliances, business strategies and policy initiatives (Keating, 1998). Regions, in Keating's (1998, p.13) view, represent 'fragile formations' of which its capacity for collective action is not naturally given, but based on the capacity to cre-

ate institutional capacity within the region's territorial boundary. Again, this points at the relevance of examining the role and meaning of scale.

Out of the regional gaze: 'politics of scale'

Various authors have recently taken up the challenge of developing a perspective on regional development that avoids spatial reification (e.g. Gertler, 1986; Swyngedouw, 1997a; Keating, 1998; MacLeod and Goodwin, 1999; Brenner, 2001; Bunnell and Coe, 2001). The central message in this work is: consider the regional scale, together with other scales, as being constructed through social and political processes. With the exception of the most direct physical constraints, scalar characteristics are not naturally inscribed to specific scales, but stem, sometimes intentionally but often unintentionally, from complex social and political processes. Swyngedouw (1997a, p. 169) justifies such a scalar perspective as follows: 'Starting any geographical analysis from a given geographical scale (local, regional, national) is deeply antagonistic to apprehending the world in a dynamic, process-based manner. The theoretical and political priority, therefore, never resides in a particular geographical scale, but rather in the processes through which particular scales become (re)constituted.' In Swyngedouw's view, scale is neither ontologically given nor does it present, in political and discursive strategies, a neutral dimension. Scale itself embodies and expresses power relations, which give rise to 'politics of scale' (or 'scalar politics') (Swyngedouw, 2000).

According to Brenner (2001), the concept of 'politics of scale' has obtained two fundamentally different connotations in the literature. The first connotation, which he defines as the 'singular' meaning, perceives scale as a boundary that separates and demarcates a specific spatial form, such as a place or region. 'Politics of scale' then refers to the processes of production and promotion of this specific form. In the words of Brenner (2001, p. 599): 'the analyst focuses upon the diverse sociohistorical processes through which a particular spatial form is established as a differentiated unit of sociospatial organization, activity, conflict, struggle, discourse and/or imagination'. These spatial forms are thus endowed with scale-specific qualities that define their position against other spatial forms.

The second connotation, denoted as the 'plural' meaning, perceives scale not in terms of bounded space but as 'a modality of hierarchisation and re-

hierarchisation through which processes of sociospatial differentiation unfold both materially and discursively' (Brenner, 2001, p. 600). Rather than singling out spatial forms on a specific scale, the analysis focuses on the process of scaling, i.e. 'the production, reconfiguration or contestation of particular differentiations, orderings and hierarchies among geographical scales' (Brenner, 2001, p. 600). Brenner prefers the plural to the singular meaning, because the former does not take the scalar content of spatial forms as intrinsically given, but as an outcome of a sociopolitical process that itself should be the object of enquiry. Discussing the spatiality of innovation, Bunnell and Coe (2001, p. 570) take a similar view when they advocate: 'a qualitative shift away from work which focuses on particular scales as the locus for understanding innovation, towards that which gives more credence to relationships operating between and across different scales.' Indeed, it is this process of scaling, as defined by Brenner, that has received little attention in the regionalist literature. The way this literature has focused on the regional level—through a 'regional gaze'—corresponds primarily to the 'singular' meaning of 'politics of scale'. Indeed, the academic advocacy of the region may itself be interpreted as an act of 'politics of scale' geared towards the demarcation and promotion of one particular spatial scale in discourses on spatial-economic development.

'Plural' approaches to 'politics of scale' may be divided broadly into two groups, based on (1) regulation theory, and (2) relational perspectives. While both are of interest for moving the regionalist discourse beyond its 'singular' stance, they differ in how they may contribute to conceptualization of the spatiality of innovation and economic growth. The first approach has been advocated primarily by Swyngedouw. Inspired by regulation approaches, Swyngedouw's scalar perspective links the (re)construction of scales to major sociospatial transformations, in which processes of production and accumulation are scaled up while regulatory processes are scaled down under the influence of scalar politics (Swyngedouw, 1997a, 2000). A crucial role is played by 'glocal' elite coalitions, which skilfully manipulate the nexus between scales to secure the general process of capital accumulation. Regions, in this context, represent 'managed laboratories' of production and innovation, as well as sites of labour reproduction. Admittedly, the central role of elites does not prevent the overall system from falling prey to frequent crises and deep polarization. There

will also be conflicts between different elite fractions that may hamper processes of scale construction. Yet the effect of scalar politics is that, in general, the regional institutions perform an essential, orchestrated role in the upkeep of the global capitalist system. A key aspect of this orchestration is the shaping of a shared regional competitive strategy to respond to mounting pressures stemming from a globalized, hostile world: 'hegemony is pursued by invoking an imagined homogeneous territorial identity (which needs protection from the different outsider) and the portrayal of an apocalyptic future if an aggressive competitive stance is not vigorously pursued' (Swyngedouw, 1997b, p. 158).

Swyngedouw's work clearly underlines the value of a scalar, politically informed approach. In particular, it illustrates the political foundation of the way a regional world of harmony 'in here' is juxtaposed against the ruthless global world 'out there'. Yet, as argued in Lagendijk (2001), the sweeping tone of the approach also poses certain difficulties. In particular, one could question the notion of a central elite coalition orchestrating a scalar model of capital accumulation, even when understood in metaphorical terms. How does this relate to the phenomenon of territory-based alliances between business leaders, labour and authorities, such as in the form of national or regional growth coalitions? An additional problem is how the region is perceived as an economic site of production and innovation. While in political terms, Swyngedouw clearly produces a different account, by making regions subject to the scalar strategies and practices of 'glocal' elites, the economic dimension is grafted onto the same arguments as in the regionalist literature. Again, spatial proximity and embedding are the basis for innovation, learning and clustering. Thus, although the aim is to avoid spatial reification, this is achieved only for the political side of the story. The need remains, accordingly, for a scalar account that also addresses the economic dimension.

Relational approaches to scalar politics may be found in the work of Cox (1998) and MacLeod and Goodwin (1999). Starting from the notion that economic activities always face certain territorial constraints, for instance, due to technical aspects of production, to limits to commuting distances or to dependence on a national regulatory framework, the authors focus on the question of how economic actors (firms, authorities, people) handle these dependencies through scalar strategies. Such strategies will involve the creation of 'networks of association' beyond the original 'space of dependence',

in which territorial dependencies are rooted, constructing new 'spaces of engagement' (Cox, 1998, p. 7). For instance, firms may resort to suppliers abroad to overcome quality shortages or cost pressures at home. Regional authorities may liaise with international organizations to provide resources of which they are short or even deprived at home. Workers may create transnational alliances between unions to counter being played off by international firms. But 'jumping scales' downwards is also possible. International organizations, such as the EU, may liaise with local governments to pursue specific agendas regarding spatial development and cohesion. International firms may engage closely with local communicators to exercise leverage over bargaining on regulatory issues with national governments. Regarding the spatiality of innovation, the core question is 'how firms organise and mediate their innovative activities across scales through their various networks' (Bunnell and Coe, 2001, p. 580).

By enrolling entities in other places, through 'jumping scales', actors thus intentionally create 'networks of association', to gain access to critical resources, to liaise with actors with similar interests or goals, or to exert influence on conditions bearing on their own performance. However, such scalar strategies are not linked to the idea that scales have intrinsic properties, that 'networks of association' articulated at a certain level (e.g. global) will automatically confer scale-specific (e.g. global) advantages and power positions. On the contrary, the message is that scale is constituted through networks of associations grounded in territorial dependency. On the basis of such relational constitution, scales become inscribed discursively and institutionally with specific characteristics and powers distinct from other scales. For instance, firms operating on a global scale can manipulate local actors in a way not open to local firms. However, such manipulation should be understood in terms of the way firms engage with different places worldwide, and the way this is represented through discourse and action, rather than as a intrinsically 'global' phenomenon.

Such a relational-scalar perspective chimes with writings of Latour and other 'actor-network' scholars. In actor-network thinking, notions such as the 'global' emerge through the imaginative abstracting from networked locals, rather than reflecting the subduing of the local. In the words of Latour (1999, p. 18–19), '[l]arger contexts also flow locally through networks. Micro and macro are local effects of hooking up to circulating entities.' The ac-

tor-network approach thus effectively abolishes the distinction between 'local' and 'global' in an ontological and epistemological sense (Murdoch, 1998). Scales are constructed discursively and institutionally through the enactment of representational practices that enrol images, stories and facts based on geographically framed actions and networks. In other words, 'the action in actor-networks configures space' (Murdoch, 1998, p. 361). In turn, the discursive and institutional processes of scaling—from regional to global—serve as an instrument for making things effective locally (Thrift, 1997).

The previous section argued that the dilemmas posed by the 'regional gaze' in geographical literature cannot be overcome merely by increased attention to the 'extra-local'. The problem is that, in 'scalar' terminology, the focus on the 'extra-local' does not open up the discussion on how scalar qualities are socially produced and contested but remains caught in a singular approach to politics of scale. Elaborating on a relational-scalar approach, as argued in this section, may provide a more fruitful way towards a 'plural' scalar understanding. The following section will provide an illustration of such a project invoking the concept of 'global production networks'.

Towards a relational-scalar perspective of spatial-economic development: global production networks

To overcome the binary approach upheld in the regionalist literature—the regional lifeworld 'in here' against ruthless market forces 'out there'—requires a different, subtler, economic-geographical imagination. This imagination should resist the temptation of defining discrete scales and spaces, like pigeon holes in to which attributes and processes may be slotted. What should be accepted, nevertheless, is that territorial dependencies, like the need for embedding in certain places, still play a role. However, rather than interpreting such dependencies in an absolute and deterministic manner, turning them into a proximity imperative, a relational approach argues that dependencies are addressed through scalar politics by reflexive agents. Through scalar politics, agents manage to escape spatial bounds by enrolling resources and agents in other sites, acting on other scales. Still, for the understanding of economic performance, territorially rooted resources—access to labour, knowledge, markets—remain a core issue. The value and meaning of such resources is contingent upon how and by whom they are en-

rolled. This means that the heterogeneity of resources is not just an intrinsic property; it is also a relational quality.

A relational approach also provides a framework for understanding the articulation of lifeworld and systemworld. In a relational perspective, a systemworld—a relatively formal world, operating through its own codes and logic, with its own momentum and emergent powers—can never be considered as pre-given on the basis of abstract logic. As argued above, a systemworld emanates from the lifeworld, is contingent upon the lifeworld, but cannot be simply reduced to the lifeworld (Sayer, 2001). A systemworld is not an immanent reality but a historically evolved construction, resulting largely from the unintentional, combined effect of myriad actions and processes combined with a certain level of reflexive, intentional behaviour. In a relational perspective, such effects emerge through countless networks of association, and certain stable points come forth that become essential, through discourse and as institutions, in shaping the identity of a certain field of human activity. In the economic field, such stable points are embodied in what Callon (1998) calls the ‘laws of the markets’: commonly recognized concepts about economic rationality, scripts of competition and so on. In the political field, such stable points are reflected, for instance, in concepts of democracy and governance, and scripts of political representation and conflict mediation. In the field of business, such stable points are found in concepts of management and labour relations, and scripts of accounting and learning. While such stable points grow out of heterogeneous networks, that evolution tends to be masked by representing them as homogeneous and essential, and inscribing them with naturally endowed attributes. The ‘lifeworld’ proliferated through ‘networks of association’ thus turns into a ‘systemworld’ of stable points and frameworks.

Following such a perspective, it becomes clear why lifeworld aspects reach out of the regional into the ‘global’, while systemworld aspects also penetrate into the region (see Table 2, white boxes). As argued above, the ‘global’ is constituted through territorially grounded networks of associations which are interpreted on the basis of their geographical reach and perceived economic consequences. These consequences are embodied, in particular, through nodes where many networks join, such as communication, learning and logistical centres of global production networks, constituted by the headquarters of large firms, world trade centres,

conference centres, airports, international organizations and so on. Such nodes represent the organizational and physical places through which the stories, figures and standards circulate that define the identity of an economic activity and keep it running. In other words, they host the ‘situated networks of actors defining norms and rules concerning product properties and knowledge exchange, trust relations, [and] social regulation through associational structures’ (Gilly and Torres, 2000, p. 10). In a wider market context, nodes emerge as crucial reference points for business development and capital accumulation, hosting collections of industrial and financial data, and centres of communication and calculation. A well-known example of such a centre, which engages in a striking mix of complex calculative acts and boundless hearsay, is the financial district in London (Thrift, 1994).

As exemplified by the financial district in London, the ICT activities in Silicon Valley, or, concerning more confined fields of economic activity, industrial districts in Northeastern Italy, such nodes are territorially rooted in spatial agglomerations. These areas represent agglomerations of power and authority (Allen, 1997), labelled by Amin and Thrift (1992) as ‘neo-Marshallian nodes in global networks’. The recognition of such areas as a nexus of communication and access is crucial. In the words of Ernst (1999, p. 5), for instance, ‘Silicon Valley is the source and control centre of a dense web of GPNs [global production networks] that provide access to lower-cost overseas supply bases, global labour markets for engineering talent and (potential) growth markets.’ GPNs may be defined as ‘the nexus of interconnected functions and operations through which goods and services are produced and distributed’ (Henderson, *et al.* 2001, p. 17). The concept builds on earlier concepts such as affiliations, value chains and commodity chains. Regions, in such a perspective, derive much of their competitive position from their status as a ‘node’ in GPNs, instead of the possession of unique assets that cause them to outdo other regions. Such central areas are crucial ‘spaces of engagement’ for many actors from other regions operating in similar activities.

The reference to GPNs points to an essential element concerning the meaning of scale. GPNs do not correspond to anonymous industrial or market environments; they represent social-economic settings in which firms liaise, as well as compete, with other firms and organizations worldwide (Henderson, *et al.* 2001). GPNs comprise input–output re-

lations supporting value-added chains of business activities, a social-institutional fabric which guides the (inter)action of participant firms and organizations (e.g. research centres, regulatory bodies, labour unions, business associations), and, at different scales and places, governance structures that coordinate activities across the network (e.g. setting of standards, transaction modes, management of supply chains, co-ordination of innovation networks). Analysing a GPN, according to Henderson *et al.* (2001, p.29), starts with mapping the institutions, firms, relations/flows and their embeddedness in space and place, resulting in a 'scale-transcending model of global production networks and sense of their likely implications for economic and social development' (p.30). What is important in the context of this paper is that both lifeworld and systemworld dimensions, and their articulation, may be accommodated within such an approach.

While its analytical power is still limited, GPN may provide a fruitful concept to further develop a relational-scalar perspective of spatial-economic development as suggested in the previous section. This paper has argued that the economic geographical literature dealing with innovation and economic developments needs to go beyond the discursive links depicted in Tables 1 and 2; that is, in brief, the associations between 'competitive sites' = 'lifeworlds of collective learning' = 'the regional scale' on the one hand, and 'arenas of competition' = 'systemworlds of ubiquitification' = 'the global scale', on the other. The concept of GPN offers an opportunity to examine the significance of other associations (i.e. normal typeface in Tables 1 and 2), without disregarding the useful insights stemming from the regionalist literature so far (i.e. bold typeface in Tables 1 and 2). To give a few examples, GPNs may illustrate how regional nodes dominate the way 'arenas of competition' are shaped in certain sectors, as Silicon Valley and Seattle exert control on ICT markets, and London and New York on financial markets. In turn, GPNs may provide a tool that helps to clarify how power and dependency relations on a global scale (in terms of dominant firms, organizations, regulations, standards, routines and so on) affect development within regional agglomerations. GPNs may also shed light on how competitive alliances are formed that cut across various spatial scales, as manifested, for instance, by the way international car makers have created consortia among themselves as well as with suppliers, at local and global levels. Finally, GPNs may reveal the importance of the transmission of non-codified, non-

standardized information on a global scale, through international communication networks, trade fairs, conferences, the international business press and so on.

Conclusion

The literature on the spatiality of innovation and economic development has recently been criticized for its fixation on the regional scale, and called for a more sophisticated 'scalar' approach. However, going beyond the 'regional gaze' is not an easy project. The 'regional gaze' has been grafted onto a set of powerful associations which are hard to defy. These associations, as argued in this paper, start with isolating the region as a bounded space, identifying it as a 'unit of competitiveness' juxtaposed against the global market as 'arenas of competition'. The emphasis on the region stems from two underlying associations. First, building on ideas about the role of tacit knowledge, embedded, non-generic competencies and untraded interdependencies, 'competitive sites' are interpreted through a 'lifeworld' perspective, while 'arenas of competition', with their constant drive to wipe out particular competitive advantages through processes of standardisation and ubiquitification, are interpreted through a 'systemworld perspective'. The 'lifeworld' perspective, consequently, is associated with the regional scale while the 'systemworld' perspective pertains to the global level. As a result: 'competitive sites' = 'lifeworlds of collective learning' = 'the regional scale', and 'arenas of competition' = 'systemworlds of ubiquitification' = 'the global scale'.

Some authors have sought to address the limitations of the regionalist literature by focusing more on the 'non-local' or 'extra-local'. The problem with this move, however, is that it merely offers an 'add-on' to a perspective which remains singularly oriented towards the region as a bounded space. What is required, in effect, is an alternative approach based on, as suggested here, a more articulated view of the lifeworld/systemworld dimensions and, to use the terminology of Brenner, plural perspective on the 'politics of scaling'. The second part of this paper offered various ingredients for such an approach: a relational view of space, the concept of 'networks of associations' inspired by actor-network thinking, and the notion of 'global production networks' (GPN). What is called for is a geographical imagination that sees economic competitiveness as braced on spatialized networks rather than bounded regions. In addition, such an

imagination should consider processes of competition as flowing through time- and space-specific nodes and networks, rather than as an all-pervasive, ubiquitous force.

Such a project will require further fine tuning with other academic discourses. As emphasized more than once above, spatiality represents one dimension of innovation and economic development, which should be analysed in conjunction with other dimensions (e.g. socio, economic, institutional, organizational). One of the problems in regionalist thinking was that this conjunction was not always sufficiently accounted for, resulting in an over spatialization of social-economic relations. Conceptualizing and analysing the conjunction of the spatial and non-spatial presents a major challenge for a relational-scalar perspective on spatial-economic development. This will require more conceptual clarity, more insight into the contribution of other discourses, and an open platform for the exchange of ideas and cross-fertilization. Given the nature of the discipline, geographers are not unfamiliar with working with ideas from other disciplines. However, such exchanges have often tended to be somewhat biased. For instance, in the context of this paper, institutional approaches have been extensively used in the conceptualization of regional innovation, while they have been applied much less to understanding the role of innovation at other spatial scales, and even less to apprehending the spatial and historical particularities of market competition. Starting with a less preconceived notion about the role and significance of spatiality will help to increase the benefits from debates with other discourses.

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