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GUEST EDITORIAL

REGIONAL SCIENCE — A PRODUCT LIFE CYCLE INTERPRETATION

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1. PREAMBLE

The dynamics of economic life are — in a Schumpeterian world — based on “creative destruction”: products and firms are born, will often face a stage of maturity and may sometimes even reach a saturation level. But the “law of the rat race” makes in almost all cases a natural end to any product or firm. Survival is usually only possible through a process of self-organization and adaptation, in which the strategy of seeking for “new combinations” seems to be the most promising one.

There is a priori no reason to assume that scientific development forms an exception to a Schumpeterian life cycle. This does not only hold for new scientific findings, but it may equally apply to entire disciplines. Clearly, the nature of competition between and within scientific disciplines may be different, but in a complex ramification of conflicting objectives (e.g., future individual benefits from scientific education, societal prestige and commercial relevance; budget reallocations between universities, between faculties or even between departments or research teams; and disequilibrium between supply and demand of students), we observe wavelike phenomena for science development. This also applies to regional science and therefore the question seems opportune whether — and if so which — new combinations may reinforce the position of regional science. Before doing so, I will briefly offer a (clearly subjective) record of the current position of regional science.

2. THE PROFILE OF REGIONAL SCIENCE

Regional science can boast a rich heritage which has acted as a seedbed for creative scientific development in many areas: location theory, urban economics, transportation science, distribution and logistics, environmental and resource economics and spatial informatics. In all these fields of research, we can observe two common elements:

- (a) space (e.g., the region, the city) is an important *medium* for interactions and transactions (witness the mobility of people, the migration of households, the transport of goods, or the transmission of knowledge, data or information);

- (b) space is both an *opportunity* for economic development (e.g., modern gateway concepts of teleport strategies) and an *impediment* to economic development (witnessed, e.g., in the "less favored regions" discussion in Europe).

Space is essentially a "Midas" phenomenon which may act as an integrating medium for many disciplines, e.g., in business economics (see, e.g., Porter 1990) and international growth theory (see, e.g., Krugman 1990). At the same time, it offers convincing examples of the validity of findings in other disciplines. For example, the "social dilemma" issue in sustainability and global change debates can only be properly understood if the spatial scale is properly taken into account. Or the problem of industrial metabolism will only get a solid scientific basis if the underlying materials balance principle will have a relevant geographical connotation.

The broad coverage of regional science has always been a strong point, but may also incorporate an indigenous weakness. The more relevant regional science is as an auxiliary discipline for other sciences, the more it runs the risk to lose its intrinsic identity. *Space* — in connection with *behavioral and policy* analysis — is in my view a *sine qua non* for a strategic orientation of regional science. At the same time, it has to be recognized that an important critical success factor which has been of decisive importance for the worldwide market penetration of regional science has been its strong orientation towards *applicable and sophisticated research tools and techniques*. A mix of these two characteristics will no doubt create sufficient vitality for the next decade, as this will generate both a high value added inside the discipline of regional science and high synergetic effects with other disciplines.

3. NEW ORIENTATIONS FOR REGIONAL SCIENCE

Even though any science — and thus also regional science — needs sufficient attention for basic and sometimes abstract issues, it is also important to avoid the trap caused by the "fallacy of misplaced concreteness" (Delfgaauw 1994). The region is at present a force field of new economic and political initiatives, while at the same time the spatial linkage pattern is going through a drastic restructuring process. In more concrete terms, this means that both the geopolitical interpretation of the region and the drive towards a network configuration are at stake. Both issues will briefly be discussed here.

The Region as a Geopolitical Unit

In recent years, the dominant emphasis on the nation state as a political-institutional and administrative-territorial principle is increasingly being questioned. Convincing examples can be found in recent developments in Europe, where the completion of the internal market has exerted far reaching impacts on traditional ways of viewing the region. An interesting illustration may serve to clarify the above observation. A few years back, car drivers in Catalonia would find signs along the major roads with the following text: "Catalonia, part of Europe." The language of these texts was either English or Catalanian, but not Spanish. This expressed the regional feeling that after the European integration, Catalonia felt itself more comfortable in the Euro-

pean home than in Spain. This emphasis on the region state — a concept from the medieval period — is clearly reflected in the notion of Europe of the regions. Recent political attempts to substantiate this notion and to offer it a scientific foundation as well are reflected in the current popularity of the “subsidiarity principle” (Nijkamp 1993). The idea of regional autonomy is likely to have a fruitful seedbed in Europe. But also in many other countries, we observe an intensified search for more appropriate geopolitical interpretations of the region, when increasingly issues like regional identity and “couleur locale” are at stake.

The emphasis on an intrinsic regional profile is reinforced by an open economy, as witnessed nowadays in Europe. In contrast to the past, where many border and peripheral areas were “dead ends” of a country, we nowadays recognize their important strategic position as communication and transaction poles in a globalizing economy. Such regions become cores in international competition, but also tend to seek for new strategic alliances of a trans-border nature. Interesting examples in Europe can be found in the Dutch-German Euregios, the Italian-Slovenian-Austrian Alpes-Adria alliance and the French-Italian Rhone-Alpes alliance. Integration benefits accruing from comparative cost advantages and strategic alliances are likely to create a totally new socioeconomic map of Europe. And it seems plausible that similar developments will take place in the NAFTA countries and other parts of the world.

As a result of all such new forces, it is evident that spatial patterns of trade, transport, migration and information will get totally new dimensions and features. The trend towards transnational cooperation will make regions more alert to competition, but at the same time regions will be more dependent on international force fields. The ensuing impacts on labor markets, on the distribution of income and wealth and on product specialization will soon be noticeable.

A final result of the above trends will also be the foreseeable change in the societal articulation of regional economic policy, which will likely develop into two different directions. A first focal point will be greater emphasis on transnational regional development, with a particular view on maximizing *the potential offered by* (the benefits of) *economic integration*. A second shift in emphasis will be more micro oriented, namely an identification of and support for *urban areas* as core units in a regional network system. World wide, cities appear to develop rapidly into gigantic problem areas with a wide diversity of structural socioeconomic and cultural-ethnic tensions. Los Angeles has offered one of the first examples of violent behavior in a conflictive urban environment and this is likely not a single event. Consequently, drastic measures will be necessary to ensure socioeconomic and cultural-social viability and sustainability of large urban areas.

The Transition towards Regional Network Configurations as Vehicles for Competition.

Another development concerns the gradual transition of modern societies towards network societies, with a high degree of interaction between nodal centres in such networks. Such networks are not only related to physical

infrastructures, but also to organizational and data/knowledge interactions. Such networks generate high synergetic effects based on actor dependency and use a combination of both economies of scope and scale in nodal centers linked via efficient multi-nodal corridors. Networks are increasingly seen as vehicles *par excellence* in a global economy.

It goes without saying that infrastructure (roads, railways, waterways, ports, telecommunication, etc.) play a critical role here. In recent years, we fortunately observe a renewed interest in the *dynamic generative* impact of networks on socioeconomic conditions of regions (Nijkamp 1994). In a new network society, the strategic position of cities and regions will become even more pronounced. Based on their incubator potential, such nodal points will offer many new windows of locational opportunities. This means that the critical success conditions and key factors for entrepreneurship deserve due attention in nodal centres of a network.

Clearly, a result of a network society will in general be a rise in mobility of people, goods and services. Apart from the positive synergetic efforts, this mobility also causes large *negative externalities* in the form of congestion, environmental effects and traffic fatalities, an issue which deserves careful attention of researchers.

4. A RESEARCH AGENDA

In light of the previous observations, a strategic list of important research items can now be drawn up. Regional science should pay sufficient attention to:

- (a) the regional economic (dis)advantages of international integration vis-à-vis regional autonomy in a federal economy (based, e.g., on the principle of subsidiarity);
- (b) the potentials and bottlenecks of central regions, peripheral areas and border regions in emerging new spatial network societies;
- (c) the evaluation of positive and negative network externalities in an open space;
- (d) the behavioral economic mechanisms (both micro and macro) which shape network mobility;
- (e) the changing role of actors in a new spatial network society, both as far as the position of governments is concerned and the strategic role of the private sector;
- (f) the coordination of policy initiatives at various spatial network levels;
- (g) regional economic conflict analysis and coalition strategies in an economy governed by competition and deregulation;
- (h) the pervasive role of new information and communication technologies in shaping and developing a network economy.

REFERENCES

- Delfgaauw, M. C. Th. 1994. Barriers in problem solving. In *New borders and old barriers in spatial development*, ed. P. Nijkamp, pp. 247–62. Aldershot: Avebury.
- Nijkamp, P. 1993. Border regions and infrastructure networks in the European integration process. *Environment and Planning B* 11: 431–46.
- Nijkamp, P. 1994. *New borders and old barriers in spatial development*. Aldershot: Avebury.
- Krugman, P. R. 1990. *Rethinking international trade*. Cambridge, MA: MIT Press.
- Porter, M. E. 1990. *The competitive advantage of nations*. London: Macmillan.