



Yet Another Turn? The Evolutionary Project in Economic Geography

Gernot Grabher

Socio-Economics of Space
University of Bonn
Meckenheimer Allee 166
53115 Bonn
Germany
grabher@giub.uni-bonn.de

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abstract

What does the economic in economic geography stand for? For much of the 1990s up to the more recent past, answers to this pertinent question frequently referred to the embeddedness-network paradigm of the new economic sociology. At the same time, economic geography more and more drew inspiration, metaphors, and practices from an increasingly diverse range of schools. In terms of the disciplinary orientation, economic geography, on the one hand, remains firmly engaged with sociology, although interest seems to expand from the Granovetarian paradigm to the poststructuralism of Latour and Callon. On the other hand, economic geography's interest in heterodox economic geography is gaining new momentum. Above all, evolutionary approaches have attracted considerable attention that most recently culminated in a range of programmatic statements to develop a distinct evolutionary economic geography. It is these attempts to develop a collective agenda that Danny MacKinnon, Andrew Cumbers, Andy Pike, Kean Birch, and Robert McMaster take issue with. Subsequently, Ron Boschma and Koen Frenken, Jürgen Essletzbichler, and Geoffrey Hodgson comment on this "sympathetic critique." A rejoinder by Andy Pike and his coauthors concludes this symposium.

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A Lot of Variety, a Lack of Continuity?

Variation, as evolutionary theory teaches us, is a precondition for evolutionary selection (Mayr 1980). “Selection,” as Lewontin (1982, 151) maintained, “is like a fire that consumes its own fuel . . . unless variation is renewed periodically, evolution would come to a stop almost at its inception.” Seen through this evolutionary optic, the preconditions for the evolution of economic geography seem favorable. More than ever before, economic geography subscribes to a wide variety of approaches and positions, ranging from regional science and new geographical economics over various strands of political economy and the embeddedness-network approach to feminism and poststructuralism. In roughly two decades, our subdiscipline has readjusted its paradigmatic coordinates at least three times by going through cultural, institutional, and relational “turns.”

However, if we continue this admittedly superficial reading of economic geography through an evolutionary lens for a moment, the reassuring first impression of a vitally evolving field blurs. With regard to the third principle of evolutionary thinking (in addition to variation and selection), heredity or retention, the current state of economic geography may be gauged to be less favorable. Instead of a cumulative evolution and continuous refinement of our positions and conceptions, we often see short-lived theoretical and paradigmatic commitments and shifting methodological conventions and standards (Peck 2005). The certain degree of continuity in debates that is necessary to generate a collective and sustaining momentum around shared projects seems rare. The decentered and, for some, fragmented and incoherent character of the subdiscipline has given rise to concerns about the subdiscipline’s theoretical and methodological practices (Markusen 1999) and its social and political relevance (Martin 2001).

There are surely manifold reasons behind the self-chosen decentering of our field and apparently ever shorter conceptual product cycles. One of the critical issues, though, lies in the contested nature of “the economic” in economic geography (Peck 2005). What, in other words, does the economic in economic geography stand for? In an attempt to answer this question, economic geography embarked on a quest that carried our subdiscipline through diverse disciplinary terrains and drew inspiration, metaphors, and

practices from a range of different schools (as indicated earlier). Notwithstanding this increasing diversity, however, new economic sociology, with Granovetter's (1985) emblematic embeddedness-network paradigm, has had a "profound impact" (Taylor and Asheim 2001, 320) on reasoning in economic geography since the 1990s (see, e.g., Dicken and Thrift 1992; Grabher 1993a; Saxenian 1994; McDowell 1997; Storper 1997; Dicken, Kelly, Olds, and Yeung 2001; Yeung 2003). The rather intense, though highly asymmetrical, relation with new economic sociology (Grabher 2006) rested on a range of basic assumptions shared by both subdisciplines, such as the general concern for problematizing "context" and historical and geographic variation, a preference for socialized and plural conceptions of the economic, and a commitment to empirically grounded theorizing (Peck 2005). These very assumptions and practices not only sustained the proximity between economic geography and new economic sociology but also reinforced their joint distance and opposition to orthodox economics.

The embeddedness-network paradigm still remains one of the conceptual linchpins of our field, particularly in certain strands of relational economic geography (e.g., Bathelt and Glückler 2003). More generally, the prevailing currents in economic geography in terms of their disciplinary association remain primarily engaged with sociology. Attention increasingly extends, however, from the (American) new economic sociology of Granovetter to the (French) poststructuralism of Latour and Callon. At the same time, there have been various attempts to redefine or at least explicitly problematize the boundaries between economic geography and economics, a notorious issue in reflections on the further directions of economic geography (see, e.g., Clark 1998; Martin 1999; Amin and Thrift 2000; Martin and Sunley 2001). On the one hand, even the most constructive attempts to initiate an exchange between economic geography and new geographical economics seem to confirm, as the editors of the *Journal of Economic Geography* concluded, that "[t]he gulf between the two groups remains wide" (Arnott and Wrigley 2003, 2). Because of a fundamental underlying irreconcilability, some have seen the (asymmetric) attempts to engage in a substantive conversation with economic orthodoxy unavoidably restricted to a "dialogue of the deaf" (Agnew 2002, 585; see also Peck 2005, 167).

On the other hand, economic geography's interest in heterodox economic approaches has more recently gained new momentum. Of course, there is a long tradition of engagement with Marxist thinking in economic geography. Although the impact of this tradition on the subdiscipline more broadly has varied over time, it without doubt produced seminal contributions to our field (see, e.g., Harvey 1982; Massey 1984; Hudson 2005). (It remains to be seen how the current economic crisis that is viewed, even by most conservative circles, as "systemic" will alter the status of this tradition.) Currently, however, another strand of heterodox economics has already gained increasing influence: evolutionary economics. Evolutionary economic principles and metaphors, such as path dependence, lock-in, routines, or coevolution, were already applied during the 1990s in a limited number of empirical case studies (see, e.g., Grabher 1993b; Hudson 1994; Storper 1997).

Among the key themes that have been discussed in terms of evolutionary principles and metaphors have been (2) the life cycles of firms, industries, and regions; (1) the localized nature of innovation; and (3) the role of institutions and socioeconomic culture (Essletzbichler and Rigby 2007). Motivated by a certain dissatisfaction with a relatively ad hoc or merely metaphoric application of evolutionary principles in much of the earlier work and building on a growing stream of studies, recent contributions have aimed at developing a more systematic and robust theoretical framework for a distinct agenda of an *evolutionary economic geography* (Boschma and Martin 2007; Essletzbichler and Rigby 2007; Frenken and Boschma 2007).

The Debate: Concepts, Boundaries, and Methods

It is these more recent programmatic statements that Danny MacKinnon, Andrew Cumbers, Andy Pike, Kean Birch, and Robert McMaster take issue with. Their “sympathetic critique” is motivated by a certain disquiet with the conceptual limitations of theoretical frameworks that have been selectively imported from evolutionary economics and complexity science. The authors are concerned that the attempts to delimit a distinct evolutionary economic geography runs the risk of isolating it from other approaches in economic geography, in particular from relevant insights of (neo-)Marxist political economy and institutional traditions. In proposing an alternative agenda, MacKinnon and his coauthors propose to link evolutionary concepts to political economy approaches to relate the evolution of the economic landscape to processes of capital accumulation and uneven development. Rather than the construction of a theoretically separate evolutionary economic geography, they favor the use of evolutionary and institutional concepts within a geographical political economy. Their priority, put briefly, is “evolution in economic geography, not an evolutionary economic geography” (MacKinnon et al. 2009, 145).

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We invited Ron Boschma and Koen Frenken, Jürgen Essletzbichler, and Geoffrey Hodgson to comment on this critique and proposed agenda. Boschma, Frenken, and Essletzbichler (together with Essletzbichler’s frequent coauthor David Rigby) are surely among the authors who have developed the evolutionary agenda in economic geography most persistently over the past decade, although from different perspectives (Rigby and Essletzbichler 1997; Essletzbichler and Winther 1999; Boschma and Lambooy 1999; Boschma 2004; Essletzbichler and Rigby 2004; Boschma and Frenken 2006; Frenken 2007; Essletzbichler 2007); Geoffrey Hodgson (1993, 1995, 2001, 2002, 2005; Hodgson and Knudsen 2006) has been a key driving force and preeminent theoretician behind the revival of evolutionary thinking in the social sciences more broadly since the 1980s. The following overview of the debate between the authors and their discussants focuses on the contested boundaries between evolutionary and other economic geographic approaches and the effects of the reliance on evolutionary concepts, such as Generalized Darwinism and Nelson and Winter’s (1982) theory of the firm.

The Notion of Evolution

In his comment, Hodgson (2009) presents an overview of the etymological roots and the disciplinary history of the concept of evolution. The term was popularized by Herbert Spencer and has been associated in the social sciences with classic traditions and authors as diverse as Adam Smith, Karl Marx, Alfred Marshall, Carl Menger, Gustav Schmoller, Thorstein Veblen, and Joseph Schumpeter, among many others. In many of these traditions, evolution has different meanings, ranging from mere change over qualitative development to the questionable meaning of progress. Despite this divergence, however, some prominent themes can be identified. Many evolutionary theorists express discontent with static or equilibrium theory or approaches that neglect vital driving forces, such as innovation and technology. The recognition of the complexity of social phenomena and the fact that outcomes are often the process of unpredictable processes is a further key theme in evolutionary social sciences. Although such key assumptions are manifest and may also explain the attractiveness of evolutionary approaches for economic geography (see also Boschma and Frenken 2006; Boschma and Martin 2007; Essletzbichler and Rigby 2007), they overlay a variety of evolutionary frameworks (see, for example, Witt 2008). “This does not mean,” as Hodgson (2009, 168) concluded, “that this term should be abandoned, but we should be aware of its looseness and imprecision.” This word of

caution is welcomed by Pike et al. (2009) in their rejoinder and taken up in their statement on conceptual and terminological clarity.

Institutional Economic Geography

Although MacKinnon et al. (2009) explicitly acknowledge that evolutionary economic geography is a pluralist and evolving project, they are concerned that the current programmatic efforts lead to an isolation from other economic geographic approaches. Referring to some earlier positions in which evolutionary and institutional economic geography have been distinguished along methodological lines (Boschma and Frenken 2006), MacKinnon et al. (2009) seek in particular to overcome the “artificial” distinction between both strands of reasoning. Boschma and Frenken (2009) still insist that it is meaningful to distinguish evolutionary and institutional economic geography because their *explanans* is different. Yet the two approaches in their view can be combined in a dynamic framework in which institutions and organizational routines coevolve. Essletzbichler (2009) subscribes to MacKinnon et al.’s (2009; see also Pike et al. 2009) notion that the inclusion of institutions is essential for the development of evolutionary economic geography, but he disagrees with their reading of the current literature that suggests evolutionary economic geography attempts to separate from institutional economic geography. After all, in his review of the theoretical antecedents of evolutionary economics, Hodgson (1993) identified the “old institutionalism” of Veblen, Commons, and Mitchell, among others, as one of the founding blocks of modern evolutionary economics.

Generalized Darwinism

A further concern of MacKinnon et al. (2009) is that the selective import of frameworks, such as Generalized Darwinism, may result in the theoretical relegation of institutions, social agency, and power relations. Hodgson (2009) concedes that these concerns have a long history but are not really justified. Hodgson (2009) considers the Darwinian principles of variety, heredity, and selection as a “metatheoretical framework” (170) for understanding the evolution of biological and social systems alike. However, causal mechanisms, including the choice of theoretically plausible units and criteria of selection remain distinct and require “auxiliary explanations.” How, then, for example, can institutions be conceived in Darwinism? “Darwinism suggests an ontology of ‘structured algorithms and rulelike dispositions’, interacting at the microlevel to create complex and unpredictable macro-outcomes (Hodgson, 2009, 170)”. In the social world, institutions built on habits can be conceived as the equivalent of these algorithms and rulelike dispositions. In this sense, “Darwinism applied to social evolution implies, rather than denies, institutions” (Hodgson 2009, 170). In a similar vein, Hodgson elaborates in detail the entry points for the concepts of agency and power in Generalized Darwinism and thus demonstrates that Darwinsim, contrary to century-old worries, does not replace human agency with the “determinism” of biological inheritance or the “randomness” of the evolutionary process.

Nelson and Winter’s Theory of the Firm

Nelson and Winter’s (1982) theory of the firm is a second key approach from which evolutionary economic geography draws its inspiration. With its central notion of (firm-based) routines and its focus on learning and technical change, the Nelson and Winter-current of evolutionary economic geography, in MacKinnon et al.’s (2009) view, tends to be biased toward the microlevel and to underrate the extent to which microlevel entities are themselves shaped by macrolevel entities. Boschma and Frenken (2009) acknowledge

that higher-level (regional) institutions do have an influence on organizational routines, although a generally modest one. More specifically, they argue that territorial institutions are to be viewed as “orthogonal” to organizational routines, in that each territory is characterized by a variety of routines and that a single firm can apply its routines in different contexts. In their rejoinder to MacKinnon et al., Pike et al. (2009, 178) express disagreement with this conception that appears “overly dualistic” and “too narrowly deterministic.” They also challenge the a priori notion that the effect of (territory-specific) institutions on routines is expected to be small. Although MacKinnon et al. (Pike et al. 2009) find agreement with Essletzbichler’s (2009) more explicit recognition of meso- and macrolevel influences, they stand by their reading that the micro-preoccupations at the firm level is less a matter of the empirical focus than a conceptual issue.

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One of the recurring themes in MacKinnon et al.’s (2009) article is the risk of relegating capital-labor relations. This theme, among others, reflects the bias toward the cognitive dimension of organizational routines that is embedded in imported theoretical frameworks, such as Nelson and Winter’s theory of the firm. Boschma and Frenken (2009) concede that evolutionary scholars have emphasized the cognitive dimension. Yet the second and political dimension of a routine as a mechanism of control (“routine as truce”) has been part and parcel of the evolutionary program (Nelson and Winter 1977). Similarly, Essletzbichler (2009) stresses that Nelson and Winter were well aware that routines are also the product of internal struggles among various factions of workers, researchers, and managers. Nevertheless, he acknowledges that capital-labor relations have been insufficiently theorized in evolutionary economic geography and that a theory of uneven spatial accumulation has to be tied to the logic of capital accumulation. To take the agenda in that direction, MacKinnon et al. (2009; Pike et al. 2009) propose to enrich evolutionary approaches with the integrative capability of geographical political economy to connect economic, social, cultural, and political concerns within a coherent framework to study the dynamics of capital accumulation. For Hodgson (2009), however, political economy is hardly an advancement of the evolutionary project. For him, political economy seems to be more “a recycle bin of nice ideas that we wish to save from the waste of Marxism” (172). Hodgson (2009) sees no systematic alternative to Generalized Darwinism for understanding profound change in complex population systems.

Methodological Practices

However, there is broad agreement among the authors that further growth in the body of empirical work on the evolution of the economic landscape is a key priority. Rigorous comparative research, in particular, can offer the means to compare geographic differentiation systematically and to address Boschma and Frenken’s (2009, 156) call for empirical studies to be “more comparable, transparent, and cumulative.” After some earlier assumptions have been relaxed (Boschma and Frenken 2006), we can now also see broad support for methodological pluralism encompassing quantitative as well as qualitative approaches.

Concluding Remark

The intention of this debate, of course, was not to try naively to settle contested issues and to draw the exact boundaries of evolutionary economic geography in a once-and-for-all fashion. We were also not motivated by the intention to proclaim yet another turn, this

time an evolutionary one. Evolutionary economic geography is, and presumably will remain, a pluralist project. Pluralism does not necessarily have to be seen as a symptom of conceptual immaturity but can be interpreted as a positive attribute that allows a productive engagement with different heterodox approaches (Klaes 2004). Productive pluralism that is more than the simple coexistence of diverse strands that mutually ignore each other requires debates about boundaries and relations of complementarity or incompatibility. Such sustained discussions are vital for identifying the analytical and empirical scope of the different theoretical frameworks and sharpening the respective conceptual apparatus. Notions like path dependence and lock-in, for example, which are usually associated with evolutionary economic geography, have also been employed by Marxists (Hudson 2001) and neoclassical authors (Krugman 1991). It is important to identify the specific causal mechanisms that lead to path dependence and lock-in (Martin and Sunley 2006) and to disentangle different evolutionary approaches to evaluate the contribution and limitations of a particular explanation. Otherwise, as Essletzbichler (2009, 161) asks, “how do we choose among alternative theoretical frameworks?” I hope that this debate provides a contribution to answer this question. More generally, I would be pleased if this symposium, seen through an evolutionary optic, did not simply increase the “variety” of positions, but benefited “continuity” through a cumulative debate within this promising field of economic geography.

- Agnew, J. A. 2002. Review of “A companion to economic geography” and “The Oxford handbook of economic geography.” *Annals of the Association of American Geographers* 92:584–8.
- Amin, A., and Thrift, N. 2000. What kind of economics for what kind of economic geography? *Antipode* 32:4–9.
- Arnott, R., and Wrigley, N. 2003. Two years on. *Journal of Economic Geography* 3:1–3.
- Bathelt, H., and Glückler, J. 2003. Toward a relational economic geography. *Journal of Economic Geography* 3:117–44.
- Boschma, R. A. 2004. The competitiveness of regions from an evolutionary perspective. *Regional Studies* 38:993–1006.
- Boschma, R. A., and Frenken, K. 2006. Why is economic geography not an evolutionary science? Towards an evolutionary economic geography. *Journal of Economic Geography* 6:273–302.
- . 2009. Some notes on institutions in evolutionary economic geography. *Economic Geography* 85:151–158.
- Boschma, R. A., and Lambooy, J. G. 1999. Evolutionary economics and economic geography. *Journal of Evolutionary Economics* 9:411–29.
- Boschma, R. A., and Martin, R. 2007. Constructing an evolutionary economic geography. *Journal of Economic Geography* 7:537–48.
- Clark, G. L. 1998. Stylized facts and close dialogue: Methodology in economic geography. *Annals of the Association of American Geographers* 88:73–87.
- Dicken, P.; Kelly, P. F.; Olds, K.; and Yeung, H. W.-c. 2001. Chains and networks, territories and scales: Towards an analytical framework for the global economy. *Global Networks* 1:89–112.
- Dicken, P., and Thrift, N. 1992. The organisation of production and the production of organisation: Why business enterprises matter in the study of geographical industrialisation. *Transactions of the Institute of British Geographers* 17:279–91.

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- Essletzbichler, J. 2007. Diversity, stability and regional growth in the United States, 1975–2002. In *Applied evolutionary economics and economic geography*, ed. K. Frenken, 203–29. Cheltenham, U.K.: Edward Elgar.
- . 2009. Evolutionary economic geography, institutions, and political economy. *Economic Geography* 85:159–165.
- Essletzbichler, J., and Rigby, D. L. 2004. Competition, variety and the geography of geographical evolution. *Tijdschrift voor Economische en Sociale Geografie* 96:48–62.
- . 2007. Exploring evolutionary economic geographies. *Journal of Economic Geography* 7:549–71.
- Essletzbichler, J., and Winther, L. 1999. Regional technological change and path dependency in the Danish food processing industry. *Geografiska Annaler* 81:179–95.
- Frenken, K. 2007. *Applied evolutionary economics and economic geography*. Cheltenham, U.K.: Edward Elgar.
- Frenken, K., and Boschma, R. A. 2007. A theoretical framework for evolutionary economic geography. *Journal of Economic Geography* 7:635–49.
- Grabher, G. 1993a. *The embedded firm: On the socioeconomics of industrial networks*. London: Routledge.
- . 1993b. The weakness of strong ties: The lock-in of regional development in the Ruhr area. In *The embedded firm: On the socioeconomics of industrial networks*, ed. G. Grabher, 255–77. London: Routledge.
- . 2006. Trading routes, bypasses, and risky intersections: Mapping the travels of “networks” between economic sociology and economic geography. *Progress in Human Geography* 30:163–89.
- Granovetter, M. S. 1985. Economic action and social structure: The problem of embeddedness. *American Journal of Sociology* 91:481–510.
- Harvey, D. 1982. *The limits to capital*. Oxford, U.K.: Blackwell.
- Hodgson, G. M. 1993. *Economics and evolution: Bringing life back into economics*. Cambridge, U.K.: Polity Press.
- . 1995. The evolution of evolutionary economics. *Scottish Journal of Political Economy* 42:469–88.
- . 2001. *How economics forgot history: The problem of historical specificity in social science*. New York: Routledge.
- . 2002. Darwinism in economics: From analogy to ontology. *Journal of Evolutionary Economics* 12:259–81.
- . 2005. Generalizing Darwinism to social evolution: Some early attempts. *Journal of Economic Issues* 39:899–914.
- . 2009. Agency, institutions and Darwinism in evolutionary economic geography. *Economic Geography* 85:167–173.
- Hodgson, G. M., and Knudsen, T. 2006. Why we need a Generalized Darwinism, and why Generalized Darwinism is not enough. *Journal of Economic Behavior and Organization* 61:1–19.
- Hudson, R. 1994. Institutional change, cultural transformation, and economic regeneration: Myths and realities from Europe’s old industrial areas. In *Globalisation, institutions and regional development in Europe*, ed. A. Amin and N. Thrift, 196–216. Oxford, U.K.: Oxford University Press.
- . 2001. Institutions and dialogue. *European Urban and Regional Studies* 8:187–88.
- . 2005. *Economic geographies: Circuits, flows and spaces*. London: Sage.
- Klaes, M. 2004. Evolutionary economics: In defence of “vagueness.” *Journal of Economic Methodology* 11:359–76.
- Krugman, P. 1991. Increasing returns and economic geography. *Journal of Political Economy* 99:483–99.

- Lewontin, R. C. 1982. *Human diversity*. Redding, Conn.: Scientific American/Freeman.
- MacKinnon, D.; Cumbers, A.; Pike, A.; Birch, K.; and McMaster, R. 2009. Evolution in economic geography: Institutions, political economy, and adaptation. *Economic Geography* 85:129–150.
- Markusen, A. 1999. Fuzzy concepts, scanty evidence, policy distance: The case for rigor and policy relevance in critical regional studies. *Regional Studies* 33:869–84.
- Martin, R. 1999. The new “geographical turn” in economics: Some critical reflections. *Cambridge Journal of Economics* 23:65–91.
- . 2001. Geography and public policy. The case of the missing agenda. *Progress in Human Geography* 25:189–210.
- Martin, R., and Sunley, P. 2001. Rethinking the “economic” in economic geography: Broadening or losing our focus? *Antipode* 33:148–61.
- . 2006. Path dependence and regional economic evolution. *Journal of Economic Geography* 6:395–437.
- Massey, D. 1984. *Spatial divisions of labor: Social structures and the geography of production*. London: Macmillan.
- Mayr, E. 1980. *The evolutionary synthesis*. Cambridge, Mass.: Harvard University Press.
- McDowell, L. 1997. *Capital culture: Gender at work in the city*. Oxford, U.K.: Blackwell.
- Nelson, R. R., and Winter, S. G. 1977. In search of a useful theory of innovation. *Research Policy* 6:36–76.
- . 1982. *An evolutionary theory of economic change*. Cambridge, Mass.: Belknap Press.
- Peck, J. 2005. Economic sociologies in space. *Economic geography* 81:129–75.
- Pike, A.; Birch, K.; Cumbers, A.; MacKinnon, D.; and McMaster, R. 2009. A geographical political economy of evolution in economic geography. *Economic Geography* 85:175–182.
- Rigby, D. L., and Essletzbichler, J. 1997. Evolution, process variety, and regional trajectories of technological change in U.S. manufacturing. *Economic Geography* 72:269–84.
- Saxenian, A. L. 1994. *Regional advantage: Culture and competition in Silicon Valley and Route 128*. Cambridge, Mass.: Harvard University Press.
- Storper, M. 1997. *The regional world*. London: Guilford Press.
- Taylor, M., and Asheim, B. 2001. The concept of the firm in economic geography. *Economic Geography* 77:315–28.
- Witt, U. 2008. What is specific about evolutionary economics? *Journal of Evolutionary Economics* 18:547–75.
- Yeung, H.W.-c. 2003. Practicing new economic geographies: A methodological examination. *Annals of the Association of American Geographers* 93:442–62.