

9 Conclusions

9.1 Introduction

The general purpose of this study has been *to improve our understanding of the locational evolution of evolving enterprises*. Two specific types of locational dynamics – becoming multiregional, and exiting out of the region of origin – have been analysed and explained. The changing nature of the central object – evolving enterprises – has been examined in order to establish an ultimate explanation of the development of evolving enterprises in space and time. A model of locational change was generated and a theory of locational evolution of evolving enterprises initiated. But, after all, what have we learnt about the locational evolution of evolving enterprises? Chapters 6, 7, and 8 provided answers to the central research questions and the research problem. These answers are discussed in sections 9.2, 9.3, and 9.4. In section 9.5 we reflect on the three paradoxes with which we started this study. We conclude with a discussion about the research implications of our study.

9.2 Enterprises in space and network relationships

We started chapter 6 with the question:

How and why do young enterprises locate outside their region of origin, and how and to what extent do the personal relations of the entrepreneur and the inter-organizational relations of the enterprise affect these changes in the spatial organization?

We distinguished two dimensions for answering these questions: locational *flexibility* and locational *adjustment*. Locational adjustment – starting a branch outside the region of origin – is said to be less disrupting than locational flexibility – moving the main office out of the region of origin. We did not just sum up the relevant location factors, but provided theoretical explanations. Several explanations could be given for these changes in the spatial organization. We learnt that spatial economics, resource dependence, organizational capabilities, and social action theories offer complementary, sometimes competing, explanations. For the explanation of locational flexibility, the sunk costs and social ties mechanisms were found to be most relevant, originating from spatial

economics and social action theory respectively. Locational adjustment was better explained by the coordination competence and dynamic capability mechanism belonging to organizational capabilities theory.

The second part of the question addressed involved the importance of the personal relationships of the entrepreneur and the inter-organizational relationships of the enterprise for explaining the changes in the spatial organization of evolving enterprises. This is at the heart of the *embeddedness* discussion in fields such as economic geography, entrepreneurship studies, organization theory, and strategic management. This embeddedness has been operationalized as *the involvement of enterprises in inter-organizational network relationships and of entrepreneurs in personal relationships*. On the basis of our findings, it can be said that relational explanations contribute in a modest way to the explanation of the changes in the spatial organization of young enterprises. For locational adjustment they play a direct role in the inter-organizational relationships with major customers. For locational flexibility, personal relationships are important for explaining the lack of willingness to move out of the region. Personal relationships also play an indirect role for both locational adjustment and locational flexibility in the recognition of locational opportunities.

9.3 Enterprise paths in time

To enhance our comprehension of the role of the changing enterprise in its locational evolution, we considered the subjoined research question in chapter 7.

How do evolving enterprises develop and grow over time?

It should be kept in mind that we have studied a very special group of firms: new enterprises that have grown to a substantial size within their first five years of existence. Only few new enterprises transform from a caterpillar into a butterfly, like evolving enterprises. We broke the enterprise paths down into periods dominated by specific development processes. These periods were labelled development phases; five distinct phases have been analysed: start-up; initial survival; early growth; growth syndrome; accumulation. Taken together, the development processes imply an incremental development, but a reorientation in which the strategy, mode of control, and organizational structure were changed simultaneously has also been observed in our research sample.

The start-up phase is characterized by path dependence in many respects. The entrepreneur's prior knowledge conditions which opportunities are recognized for the new enterprise. An entrepreneur's prior work experience affects the nature of the emerging firm and the entrepreneurial network relationships. The resource generation process is vital in the initial survival phase. All micro firms analyzed stay in this phase, but the evolving enterprises studied enter the next phase, the early growth phase. Several of the evolving enterprises took a relatively long time to enter this phase, because they lacked the opportunity to expand, or faced internal and external constraints on growth. After a while, the growth of some evolving enterprises stagnated, or even reversed. Five firms in a growth syndrome phase initiated a reorientation; the growth syndrome triggered four of these reorientations, while one reorientation triggered a growth syndrome. Only three of these reorientations were implemented. And only ten of the twenty-five evolving enterprises studied have embarked on a resource accumulation process. Four of these had to overcome a growth syndrome,

but six just continued to grow after the early growth phase. In contrast with our expectations, the accumulation phase was not characterized by any reorientations. These were only found to be relevant as triggers or enablers of the accumulation phase. The accumulation process makes it possible to grow not only in an organic way, but also in an external way, since firms in the accumulation phase have the resources to acquire relatively large firms.

The term *phase* is not used here in the sense of a predictable sequential process, but as a way of structuring the development of an evolving enterprise. Beyond its descriptive utility, this type of temporal decomposition makes clear the constitution of comparative units of analysis for the exploration of the interaction between development in time and development in space. An understanding of the changing nature of the evolving enterprises was a necessary condition for the analysis of the locational evolution in chapter 8.

9.4 Locational change and evolution

The central feature of the study has been the confrontation of the development in time and the development in space (locational evolution) of evolving enterprises. The central research problem in this study has been:

How and why does the spatial organization of evolving enterprises change during their life course?

Only very few enterprises have gone through a similar sequence of locational events during their life course. The few that did so started at one location and never moved from it, or only expanded once within their region of origin. For most of the evolving enterprises this locational evolution was much more dynamic, involving multiple locational changes within, but also outside, the home region. The explanation of this locational evolution is much more complex than the explanation of just one locational event. We first explored the relationship between the development phase and locational events. During the start-up and initial survival phase, the enterprises studied invested in the first location and hardly changed their spatial organization at all. Change was not even considered. In contrast, the early growth phase was full of locational dynamics, because expansion space was needed, or new markets were developed. The surplus of resources generated in this phase made these changes possible. Some enterprises faced growth problems and entered a growth syndrome phase. In this phase, a *status quo* in the spatial organization can be observed. Only some branches outside the region of origin were closed. Finally, the few firms that reached the accumulation phase had the best opportunities to change their spatial organization. This was mostly achieved by establishing new branches (nationally or internationally). This exploration has given us an insight into *how* the spatial organization changes during the life course of evolving enterprises. But we also want to know *why* these changes occur. Ultimately, we sought to explain the locational evolution of evolving enterprises. This was achieved with a model of locational change and a theory of locational evolution.

The model of locational change provides insight into how changes in the spatial organization come about. The main thesis of the model asserts that:

Locational initiatives have to be selected by the enterprise (*internal selection*) in order to become a *locational event*. The resulting new form of spatial organization has to be selected by an external environment (*external selection*) in order to be viable in the long run.

In figure 9.1 this thesis is depicted with the four key elements.

The locational initiatives involve the consideration to (dis)invest in a change in the spatial organization of the enterprise. This initiative can be triggered by site and situational constraints leading to a problemistic search as well as the recognition of entrepreneurial and managerial opportunities. These locational initiatives have to be selected through an internal selection process in which several investment projects compete for resources. Internal selection involves both the ability of the enterprise and the willingness of the key actors to change the spatial organization. The outcome of the internal selection process is either the preservation of the existing spatial organization, or a change in this spatial organization. After a change in the form of spatial organization has been realized, the enterprise has to survive in an external selection environment with the resulting form of spatial organization. External selection involves the selection by market environments of spatial units, or the complete enterprise with a specific spatial organization.

This model of locational change offers a heuristic to analyse locational change in the life course of an evolving enterprise. We have considered not only the development in space – locational changes – but also the development in time – development phases – and the interrelation or feedback between these two dimensions of organizational development. The integration of the empirical investigations and the theoretical exercises culminates in a theory of the locational evolution of evolving enterprises. The basic model of locational change just represents one cycle, while an enterprise path in space (locational evolution) may consist of many cycles (see figure 9.2). Every cycle is to some extent an effect of the previous cycle and a cause of the subsequent cycle.

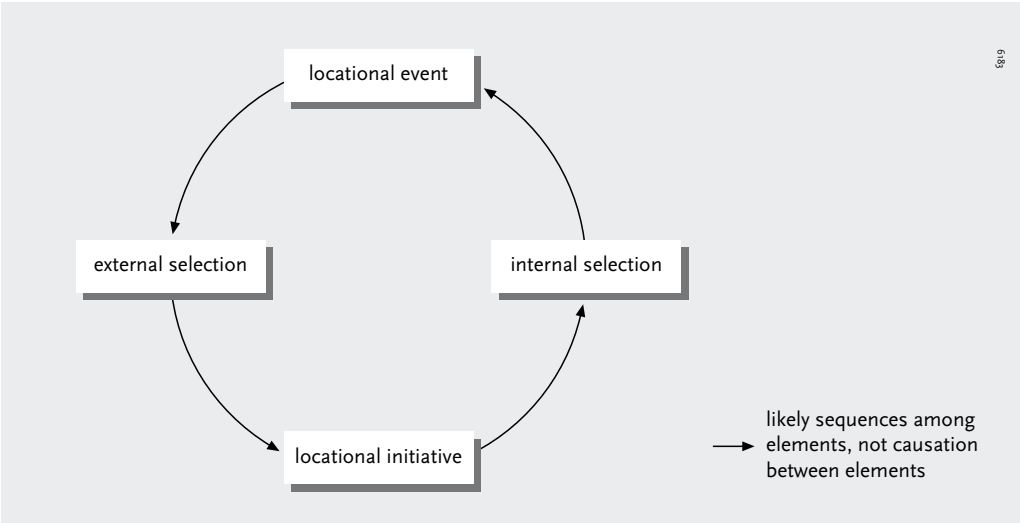


Figure 9.1 – The four elements of the process model of locational change*

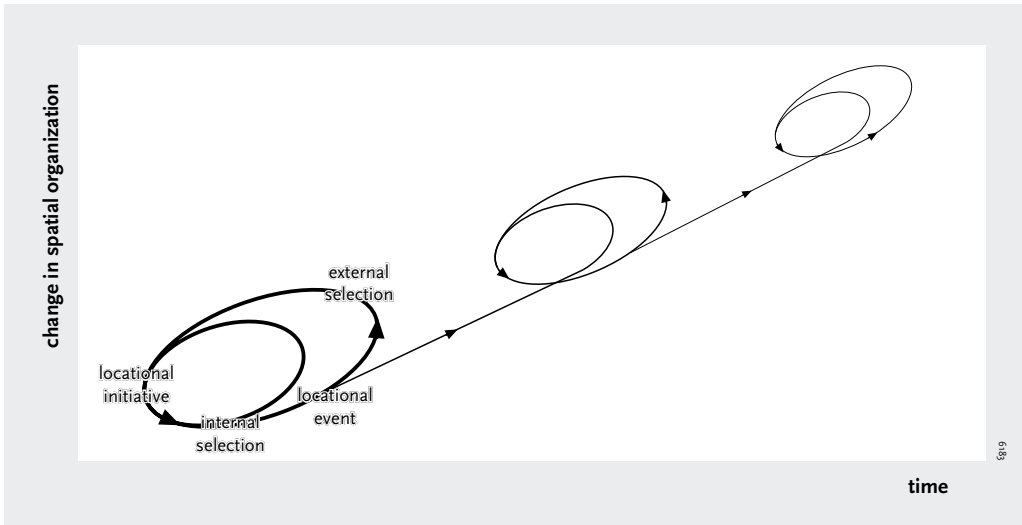


Figure 9.2 – Locational evolution

A theory of locational evolution explains how and why the spatial organization of evolving enterprises changes during their life course. Evolving enterprises are assumed to have different characteristics in different development phases. Four elements appear to be relevant in this respect: (a) the changing characteristics of the enterprise; (b) the firm's changing external relationships; (c) the changing role of the entrepreneur; (d) the entrepreneur's changing personal relationships. The nature of the locational initiatives and the internal selection affects the locational events that are realized in the subsequent development phases. These locational events change the spatial nature of the enterprise, which has to survive in an external selection environment. The result of this external selection is that enterprises receive profits or losses from the environment. External selection environments are shown to be different in the subsequent development phases. The spatial dimension of these external selection environments is most important for the locational evolution, since it affects the spatial organization, but may also be affected by the spatial organization of evolving enterprises.

9.5 Entrepreneurship, space, and place: three paradoxes

We started this study with three paradoxes concerning entrepreneurship, space, and place. These provided a broader perspective for the spatial organization of evolving (entrepreneurial) enterprises. What can we say about these paradoxes at this moment? Did they prove to be relevant, and have they lost their paradoxical nature?

The first paradox referred to *non-economic economics*. It is being increasingly recognized that the economic competitiveness of most advanced economies depends on non-economic factors. These are mostly to be found in social networks and the related concepts of trust and social capital (cf. Harrison, 1992). In our research study, only the social ties of the entrepreneur seemed to be a non-

economic mechanism capable of explaining the spatial organization of evolving enterprises, or more specifically, the lack of locational flexibility. Other non-economic mechanisms only seemed to be relevant as contingent conditions, for example as personal problems triggering a locational change, or indirectly when personal network relationships were helpful in recognizing opportunities that triggered a locational change. The network paradigm – and perhaps even the network hype in the social sciences in general and economic geography in particular (Cooke and Morgan, 1993) – has proved fruitful in certain areas, especially in analysing learning and innovation in firms, clusters, and regions (Boekema et al. 2000; Nooteboom, 2000). This value of this network paradigm has also been observed in empirical studies in the Netherlands (Oerlemans et al., 2000; Wever and Stam, 1999). In our study regional clusters revealed to have only a very modest role in explaining the spatial organization of evolving enterprises. The presumed attractiveness of regional clusters did not in fact affect the dynamics in the spatial organization of evolving enterprises. We also investigated the network paradigm directly in relation to the development of evolving enterprises in chapter 7. Surprisingly, these networks seemed more important in the solution of problems than in the transitions between development phases. Learning and innovation improves the competitiveness of firms, but this is not closely related to the location decision-making that was *the* central issue in our research. Location-decision making has more to do with investment decisions and competence development, in which external social relationships only play a modest part. The locational changes of evolving enterprises that increase their competitiveness depend only in a limited way on non-economic factors.

The *local and the global in the new economy* stood central in the second paradox: the dissociation between abstract flows in space and the concrete valorization, development, and strategic decision-making in place. This paradox could be unravelled by asking whether globalization and localization were relevant issues for the enterprises studied. Are these evolving enterprises globalized? Most are not. Most have no international sales or inputs and even fewer have become multinational. Only the shipbuilding enterprises active in a very specific market niche have international inputs and sales. The biomedical enterprises are probably the most globalized, since their capital and most of their strategic relationships are international. These biomedical enterprises are also very dependent on the local academic infrastructure during their early life course. The graphics-media firms start with and keep a local orientation during their life course, while the professional business service enterprises often have a national reach, facilitated by the establishment of branches in several regions. So the local scale is still highly relevant for evolving enterprises, while globalization does not have a large direct effect on their functioning.

The last paradox centred on *people in spaces and places in people*: the need for anchors (to place) to cope with modernity. This paradox brings human beings back on stage. Paraphrasing Torsten Hägerstrand (1970), we may ponder: what about entrepreneurs as human beings in the study of location? Entrepreneurs create evolving enterprises and determine their locational evolution for a long time after the start-up. These entrepreneurs have a biography that formed their spatial identity that may be local, but also cosmopolitan. Important members of their social context affected the choices the entrepreneurs made and (perhaps more importantly) did not make in these enterprises. It is the entrepreneurs who recognize the opportunities in places and markets with which they are familiar. In short, entrepreneurs are social beings of flesh and blood acting in everyday circumstances that affect the spatial organization of their enterprises. However, during the development of an enterprise, the entrepreneur's influence is likely to be taken over by other

decision-makers with a more explicit managerial role. The contingent place conditions, especially via the entrepreneur, are highly important, although the evolving enterprises become less affected by a *particular* place as they develop and the importance of the entrepreneur diminishes. So entrepreneurs need anchors (to place) to cope with modernity, but that is not to say they have an enduring effect on the spatial organization of evolving enterprises in all the development phases.

9.6 Research implications

This study has implications for the concept of the firm in economic geography. To paraphrase Robins and Gillespie (1992, p.149) and Jessop (2000, p.69), the spatial organization of evolving *professional business service* enterprises (highly representative members of the current globalizing knowledge-driven economy) shows 'new and more complex articulations of the dynamics of mobility and fixity.' In these evolving professional business service enterprises, the separation between work and home brought about by the industrial revolution is abolished. Within traditional spatial science, organizations have been theorized as bounded units with a precise locational extent (Del Casino et al. 2000, p.526), as a workplace distinct from the place of residence of the members of the organization. However, with the shift from an industrial to a knowledge economy, new forms of organization and work have evolved with less clear spatial demarcations. The network organization and other flexible forms of labour and contractual relationships have affected the very spatial nature of the enterprise. The professionals forming the business service enterprise do not necessarily work at the location of their employer: they mostly work at the client's site, or at home. The enterprise is more often regarded as a meeting point than strictly as a place to work. This has at least two consequences for the spatial organization of evolving professional business service enterprises. First, the professionalization of the site may be delayed for quite a long time. These enterprises can then be characterized as completely virtual, or network enterprises during the first phases of their life course, and they will remain partly virtual when they enter the early growth and subsequent phases. The second consequence is that the place of residence, or clients' sites, may be characterized as 'temporary' branches of the enterprise. This feature also relates to the specific project type of organization that characterizes the user-producer relationships within the professional business services, which requires a 'temporary' spatial proximity of the organizational members involved. How the organizational structure and control in strategic decision-making, technology, and other factors enable these virtual forms of spatial organization is an interesting question that arose in the course of this study. The question may be explored and explained in future research.

The present study can be complemented by other types of research concentrated on the same research theme. At least four directions could be considered. First, an investigation of the enterprise paths in time and space of a cohort with interviews from the start of the enterprises would prevent 'retrospection' bias. Second, an investigation of the enterprise paths over a longer term would reveal which firms reached the accumulation phase, were taken over, or failed within a few years, and what implications there were for their spatial organization. Third, investigating the 'death,' or non-survival, of firms would preclude a 'survivor' bias; this approach might give some insight into the effect of spatial organization on the survival chances of new firms. More light might also be shed on

the role of different types of selection environments in the *ex post* coordination of locational events. Fourth, computer simulations with agent-based models used for analysing the evolution of phenomena that exhibit complex non-linear dynamics might be useful for analysing the locational evolution of evolving enterprises. For running meaningful simulations, the outcomes of this study could be used to estimate the range of values of simulation parameters.

Some interesting findings in this study concerning the role of entrepreneurs and entrepreneurial actors deserve attention in future research. Three specific topics can be mentioned here. First, most evolving enterprises are started by an entrepreneurial team and not by a 'lonely hero'. This finding is interesting in itself (see Dirks et al., 2002), but especially relevant for the study of locational initiatives and internal selection processes in evolving enterprises. Does this 'collective entrepreneurship' also mean that more locational initiatives are generated, and that certain of them are blocked by members of the entrepreneurial team, while other initiatives could more readily be realized by a team than solo-entrepreneurs? Second, the entrepreneurs of evolving enterprises have often been involved in other new enterprises, or are involved in new start-ups. Although there has been some research on serial and multiple entrepreneurship (Rosa, 1998; Rosa and Scott, 1999a; 1999b; Westhead and Wright, 1998), it is not known whether this has any effect on the spatial organization of the enterprises of these entrepreneurs and what the implications for the localities of these enterprises might be. Third, evolving enterprises that develop a decentralized mode of control in the early growth phase or later seemed to stimulate locational initiatives. Entrepreneurs in growing enterprises that decentralize the locus of decision-making enable other members to take locational initiatives. These can improve the satisfaction of employees and increase the number of product-market opportunities recognized. Employees may take action to improve the accessibility of the workplace by starting new branches closer to their homes. The presence of these would improve the ability of an enterprise to retain and attract valuable employees. More opportunities could be recognized and realized if not only the entrepreneur, but also key employees were to take locational initiatives related to these opportunities. Future research may reveal whether such changes in the spatial organization lead to the growth of an enterprise.

Further research may also reveal the boundary conditions of the theory of locational evolution, since it has been developed in only one specific country (the Netherlands) and in four specific industries (professional business services, biomedical, shipbuilding, and graphics-media). This theory of locational evolution of evolving enterprises is rooted in a post-disciplinary disciplinary social science. To approach the research problem from one disciplinary angle is like looking at the growth of a tree through a microscope. We need to build bridges between economics, sociology, organization theory, strategic management, and entrepreneurship studies to engage in this problem initially formulated in economic geography. The theory of the locational evolution of evolving enterprises may be a special case in what has been referred to as 'evolutionary economic geography' (Boschma and Lambooy, 1999; Boschma and Frenken, 2003). This study has shown that the history of entrepreneurs and enterprises in different places matters for the development of evolving enterprises in time and space. Evolving enterprises transform from a caterpillar into a butterfly, and even if they hardly leave their region of origin their spatial organization is highly dynamic.