2 Theorizing entrepreneurship in context

2.1 Introduction

Although entrepreneurship has been identified as a driving force of economic development its role tend to be suppressed by mainstream economic approaches (see Barrero, 1989; Blaug, 1992; Teece and Winter, 1984). Several factors limit the analysis of entrepreneurship in mainstream economics: the impossibility of constructing a mathematical model of the entrepreneur’s behaviour (Blaug, 2000), the assumption in general equilibrium analysis of perfect information (Casson, 1982), and the assumption that human capital, in the form of entrepreneurship is generally in abundant supply (Piazza-Georgi, 2002). Especially questions on the nature of entrepreneurship, and where it occurs, tend to lie beyond the scope of mainstream economics. The purpose of this chapter is to explore the foundations for theorizing about this particular kind of agency – entrepreneurship – within particular structures. We will conceptualise entrepreneurship for our study, circumventing its everyday (chaotic) conception.

Entrepreneurship can be defined as the process in which entrepreneurial opportunities – opportunities to bring into existence new goods, services, markets, supply sources, and organizing methods (see Schumpeter, 1980, p.66) – are recognized, and realized in a profitable way. This definition is based on both Schumpeterian innovations and an Austrian economics’ view on opportunity recognition (cf. Casson, 1982). In this respect evolving enterprises – our central research object – are enterprises that are created and developed by entrepreneur-founder(s) that have recognized and successfully exploited entrepreneurial opportunities (cf. Davidson et al., 2002). The early growth of new firms that is central in evolving enterprises is largely a reflection of entrepreneurship (Davidson et al., 2002). These evolving enterprises are thus neither ‘life style’ firms, that fail to grow after start-up (Hanks et al., 1993), nor managerial firms, in which ownership and management are separate (Hart, 1983). These enterprises do not have to remain dominated by the founder-entrepreneur: they can become entrepreneurial in nature; a structure to enable entrepreneurial action by its members.

This chapter begins with a short description of new directions in entrepreneurship studies and economic geography (section 2.2). The meta-theoretical building blocks for a contextual approach on entrepreneurship, namely constructive realism and methodological interactionism or relationalism, are presented in section 2.3 and provide a general framework for the analysis of
thought and action. These meta-theoretical concerns are followed by an exploration of three modes of analysis in current social science that are essential for the study of entrepreneurship in context: evolutionary analysis, institutional analysis, and time-geography (section 2.4). Each mode of analysis approaches the empirical subject matter from different but complementary perspectives. The chapter ends with a summary and conclusion.

2.2 New directions in entrepreneurship studies and economic geography

2.2.1 Entrepreneurship studies

The entrepreneur used to be a central element in economic theory, for example as a coordinator of resources (see e.g. Say, 1971; Coase, 1991), innovator (Schumpeter, 1980), and uncertainty bearer (Knight, 1971). However, as Barreto (1989, p.2) points out, the entrepreneur did not fit into the grand, unified whole of modern micro-economic theory. The core assumptions of the neoclassical model preclude the incorporation of the entrepreneurial role, so the entrepreneur disappeared from the centre stage of economics. Only the ‘Austrian’ school retained a central position for ‘the entrepreneur’ (see Kirzner, 1997).

The role of the entrepreneur became rather neglected in mainstream economics in the second half of the twentieth century, but acquired central importance in the recently emerging multidisciplinary field of ‘entrepreneurship studies’. Entrepreneurship studies contributes to the understanding of the uniqueness of entrepreneurship that cannot be understood within the framework of existing scientific disciplines (Sexton and Landström, 2000, p.xxi). Entrepreneurship studies used to be focused on studying the traits and characteristics of autonomous entrepreneurial actors (Gartner, 1989), sometimes called the ‘omnipotent, lonely wolf’ view on entrepreneurship (Davidsson, 2002; Pennings, 1980). Until recently, this supply-side perspective, which also focused on the assumed specific, traits of entrepreneurs, was the dominant school of research (Thornton, 1999). During the 1980s research on entrepreneurship gradually moved away from an ‘omnipotent, lonely wolf’ view, towards a ‘relationship manager’ view of the successful entrepreneur (Davidsson, 2002). Authors in entrepreneurship research have redirected the focus of research from the individual to the entrepreneurial process or event (Gartner, 1989; Sexton and Landström, 2000). There is an emerging consensus within entrepreneurship studies on what distinctive entrepreneurial processes are: opportunity recognition, resource mobilization, resource creation, and coordination of resources (e.g. Davidsson, 2001; Garnsey, 1998; McGrath, 2002; Ucbasaran et al., 2001). The current scientific object studied in entrepreneurship studies is “the dialogic between individual [the entrepreneur] and new value creation, within an ongoing process and within an environment that has specific characteristics” (Bruyat and Julien, 2000, p.165) or “the organising of resources and collaborators in new patterns according to perceived opportunities” (Landström and Johannisson, 2001, p.228). In short, entrepreneurship studies shows a marked shift to an interactive perspective focusing on the interaction between the entrepreneur and his context. Studies within the interactive perspective focus on the context in which entrepreneurship occurs (Thornton, 1999). For entrepreneurship, the networks (Birley, 1985; Johannisson, 1995; Malecki, 1997) and embeddedness (Granovetter, 1995; Reynolds, 1991; Thornton, 1999) of the entrepreneur are regarded of utmost importance. Entrepreneurship also has to be analysed in a spatial context, as it is influenced by geographical
variety (economic, political, social, and cultural) and it has an effect on geographical space and place. New directions in economic geography are addressed in the following section.

2.2.2 Economic geography

In recent economic geographical research the boundary drawn in the past century between the economic part and other social geographical practices has been broken down. This move has been labelled ‘the cultural turn’ (Lee and Wills, 1997), the ‘socio-cultural turn’ or the ‘institutional turn’ (Jessop, 2002; Martin, 2000). The study of these ‘messy’ social, cultural and institutional factors in economic geography is neglected by mainstream economics and its ‘geographical economics’ since these factors cannot be reduced or expressed in mathematical form (Martin, 1999). In contrast, in economic geography the economic sphere is no longer seen as sharply distinguishable from the cultural (social, political, institutional); they are increasingly viewed as symbiotically related to each other. This development is not completely new as there have always been authors in economic geography who shared this vision (e.g. Eversley, 1965; Rühl, 1927), but during their time this was not the dominant view. A key metaphor in this new direction is ‘embeddedness’ (Lagendijk, 1997). Embeddedness is often explained by using the term ‘networks’, that is although quite different from the former linkage studies in economic geography (cf. Oinas, 1997). Some authors even use the term ‘network paradigm’ (Cooke and Morgan, 1993) or ‘relational turn’ (Boggs and Rantisi, 2003) to qualify the new framework in economic geography. Network analysis is used as the vehicle for resurrecting the firm as the focal unit of the capitalist organization of production, while allowing for a culturally sensitive analysis of the institutional context in which firms operate, particularly their relationships with other economic and political actors5 (Yeung, 1994). In economic geography, context is developed as a new core concept of social and economic development6.

2.2.3 Entrepreneurship in context: the contextual turn

These new directions show a remarkable resemblance in their use of the terms ‘embeddedness’, ‘context’, and ‘networks’. Although the use of these terms sometimes differs between these disciplines and even within these disciplines, there are many opportunities for cross-fertilisation. We would like to summarize these new directions as the ‘contextual turn’. Such a contextual turn begins with the observation that all entrepreneurial phenomena occur within contexts. By itself this observation is somewhat innocuous: each human being thinks and acts within certain social, linguistic, and material contexts, and human beings are not disembodied spirits, but consist of flesh and blood, living at certain concrete times and places. Clearly, embeddedness, contexts and networks matter for entrepreneurship, but we must tackle the more difficult and more interesting issues of how (much) they matter, and under which circumstances (cf. Granovetter, 1999). Unlike the consensus on the conceptualisation of entrepreneurial processes, the conceptualisation of the context in which these processes take place is still in its infancy.

In the next chapters we will deal with those issues, ultimately explaining the dynamics of the spatial organization of evolving enterprises. This contextual turn clearly leads us away from the context-independent forms of inquiry (positivism), but it is still open whether it leads us to ‘moderate’ or ‘hard-core’ contextualism, constructive realism or postmodernism respectively. We will deal with this question in the next section, where the meta-theoretical foundations of the contextual approach on entrepreneurship are discussed. Behavioural research is always based, either implicitly or explicitly, on assumptions about the thought and behaviour of the actors involved. The development
of research on specific phenomena should be guided by knowledge about the specific nature of the phenomena under study. In this study entrepreneurial phenomena in context, especially the dynamics of the spatial organization of evolving enterprises, are central. Former inquiries on entrepreneurship in context have often left implicit their philosophical foundations or have been built on an insufficient positivist foundation.

2.3 Meta-theoretical foundations

The foundations for inquiry into real world issues are epistemology and ontology. Here we start with the epistemology (the study of knowledge), i.e. the cognitive basis of the contextual approach on entrepreneurship. The term cognition refers to the way people perceive (perception, awareness, sensitivity to stimulus), interpret (meaning creation, understanding, knowledge), and evaluate (goal congruence) the world (Nooteboom, 2000). Cognition is about both the quantity of relevant information and the ability of the actor to process information (cf. Pred, 1967). Cognitive capabilities of human beings are limited, and thus they are also not able to process all the available information: bounded rationality (Simon, 1959). Next to information stimulus and processing, cognition is also about the hermeneutical interpretation and evaluation of information, which ultimately result in personal knowledge or belief.

The proposed cognitive basis here is based on the assumptions that the mind is inextricably interwoven with the body (embodied cognition), world (situated cognition), and action (situated action). These assumptions are therefore based on a non-Cartesian cognitive science (mind and body are united). Embodied cognition assumes that agents' cognition cannot be separated from the body, as experience is rooted in bodily structures. Knowledge has to be actively constructed by embodied agents in their environment. Situated cognition or situated action emphasizes that cognition is constructed in interaction with the surrounding (material and social) environment of the embodied agent. In former approaches cognition was regarded as something that can be modelled by computers, and proposes that action is based on a cognitive structure that is context-independent. In the situated cognition/action view the converse holds true: cognitive structure is based (but not determined) on action in a certain context (material and social environment). The situated action view connects with pragmatism in philosophy, where it is argued that there is no ‘absolute’ answer to ‘perspective-independent’ questions, but only “objective solutions to problems which are situated in a place, at a time” (Putnam, 1990, p.178).

Regarding the ontological aspects of the contextual approach on entrepreneurship we assume that there is a world that exists independent of our ideas about it and that there is certain correspondence between this reality and our perception. This means that people may agree on certain aspects of reality, especially by constructing this reality inter-subjectively, i.e. sharing information of other peoples’ vantage point. Interaction with other persons may lead to a construction or deconstruction of certain aspects of reality. Now relationalism becomes a synonym for hermeneutics, as in hermeneutics it is proposed that people interpret according to perspectives built on the past, and thus the context of interpretation is not objectively given but is itself already constructed (Ley, 1998; Nooteboom, 2000). This does not lead to extreme relativistic, subjective, particular local knowledge as people have constructed their categories in a (partly) common material and social environment. So there is an area of common understanding beyond the particularities of local knowledge (Ley,
Here the hermeneutic endeavour begins with the inevitable collision between evidence from different vantage points and the researcher (Gadamer, 1986, in Ley, 1998, p.28). If we take this interaction between the embodied agent and his or her environment as central, then the starting point for analysing behaviour is methodological interactionism. Methodological interactionism means that social theories must be grounded in the interaction between individuals, and not just in the attitudes and behaviour or individuals (methodological individualism) or in the behaviour of irreducible groups of individuals (methodological holism; Blaug, 1992, p.250). There is a growing consensus on the relevance of methodological interactionism in innovation studies and in the study of identity formation. For the proper analysis of these and other topics in entrepreneurship studies and economic geography methodological interactionism is almost indispensable. People are seen to perceive, interpret, and evaluate the world according to forms or categories of thought that they have developed in interaction with their context (their particular material and social environment). This approach to knowledge does not inevitably lead to postmodern relativism (or hard-core contextualism). Relationalism is the central issue, not relativism. The concept of relationalism makes the point that cognition or more specifically the interpretation of events, while relational to an observing subject, is not entirely the product of each person's subject position. There are aspects of reality, the 'objective world', about which observers from different vantage points may agree, which are not arbitrary. This objective world exists independently from our knowledge. So a social constructivist theory of knowledge is reconciled here with a realist ontology: constructive realism. This explains why the proposed contextual approach is labelled constructive realist, and not postmodern.

The meta-theoretical foundations for a contextual approach on entrepreneurship can be summarized in the statement that knowledge arises from categories that people construct in interaction with their material and social environment. These foundations seem especially useful for the new directions in economic geography in which the hermeneutic and particularizing approach has become dominant, mainly as a reaction against the former positivistic and universalising economic geography. This transition has been called the ‘socio-cultural turn’ towards a more relational economic geography, and is associated with an explicit focus on the (geographical) context of behaviour, i.e. ‘situated action’ (Barnes, 1996; Sunley, 1996). In the next section we build on these foundations with three specific modes of analysis.

2.4 Modes of analysis

Every scientific field has to develop procedures (modes of analysis, theory, research design and method) that are relevant for its own research purposes (cf. Toulmin, 2001). Here the research purpose is to improve insight into the context of entrepreneurial phenomena, especially the dynamics of the spatial organization of evolving enterprises. In order to understand the role of context in the realization of entrepreneurial processes we need modes of analysis to conceptualise this context. These modes of analysis provide the lenses through which to conceptualise the world or the language that makes it possible to analyse specific empirical issues. They offer heuristic devices in order to grasp reality (see Del Casino et al., 2000; Jessop, 2001).

Context has been defined in the former section as the surrounding environment of the agent. This context has time- and place-specific material and social aspects, which may be experienced as
subjective and objective. In the next sections three specific modes of analysis from social science are presented that are helpful in analysing entrepreneurial phenomena in such a context: evolutionary analysis, institutional analysis, and time-geography. Each of these modes of analysis recognizes the time-specific material and social aspects of the context in its own specific, but also partly overlapping way. These modes of analysis are also congruent with the philosophical foundations of the contextual approach on entrepreneurship. Modes of analysis refer to non-formal theorizing, but may lead to more formal theorizing and modelling. After this chapter, we will focus on more specific themes and explanatory factors connected to the explanation of the spatial organization of evolving enterprises. In this sense modes of analysis are helpful for theory construction as they help to develop connecting principles that make sense of a complex world.

2.4.1 Evolutionary analysis

Evolutionary analysis is about the analysis of the dynamic process that is behind observed change in socio-economic systems. The use of evolutionary analysis makes it possible to explain how particular forms of organization and behaviour come to exist and evolve in specific kinds of environments. Evolution is a concept that has become quite central in current debates in social science in general, and economics, economic geography, and organization studies in particular.

Evolution results from the operation of three generic processes: variation, selection, and retention. Variation refers to change from current routines and competences and the change in organizational forms. Even though the strict Darwinian evolutionary analogy would not give space for human reflexivity and conscious goal-seeking activity, evolutionary analysis does not at all demand the absence of purposiveness. Variation can be intentional, when people actively attempt to generate alternatives and seek solutions to problems (intentional adaptation, which implies learning), but it can also be blind, that is, independent of environmental or selection pressures. These blind variations result from accidents, chance, luck, creative exploration, or what is sometimes called serendipity. However, mere adaptation might not be sufficient for organizations in certain situations. In fact, a too-perfect adaptation to the environment might preclude adaptability in subsequent rounds of competition. In this case an ability to redefine and recombine assets is needed to retain flexibility. In contrast with economic and sociological theories that exclude the individuality of the entrepreneur, evolutionary analysis dealing with complex systems views individuals and local events as a critical source of diversity and change.

Selection refers to the differential elimination of certain types of variation. Variations that are more fit to meet the demands of their environment are more probable than others to acquire resources and are thus selected. Processes of selection operate by affecting the availability of resources. Selection forces operate at different levels: fitness to different, nested environments. Three types of selection forces at the environmental level can be distinguished: economic (e.g. market forces, competitive pressures), institutional (conformity to institutionalised norms), and spatial (climate, transport infrastructure). Economic selection forces act through markets that are embedded in an institutional environment and situated in a spatial environment.
The third evolutionary process involves the operation of a retention mechanism for the selective retention of positively selected variations. This retention provides the constraints on variation, as selected variations are preserved, duplicated, or otherwise reproduced. Within organizations this can be observed by the stability in the structure and activities of the organizations (inertia): ‘organizational memory’ in routines, standardization and specialization of roles, material resources such as buildings and machines. This resembles the central assumption in organizational ecology, that organizations tend to be inert (Hannan and Freeman, 1984), and the notion of locational inertia in economic geography, which refers to the centripetal forces affecting geographical concentration of activities. Within society in general, retention mechanisms can be found in the form of institutionalisation of practices in cultural beliefs and values. Some authors compare these retention mechanisms in social science – routines on the level of organizations/groups (Nelson and Winter, 1982) and habits of people in societies/cultures (Veblen, 1919) – with genes in biology. Selected variations might also diffuse through imitation (mimetic effects) and the mobility of people and organizations. Distance (related to transport and communication networks) might play a major role as a barrier for diffusion (see Hägerstrand, 1967), as might other factors like unwillingness and incompetence to imitate (Ahrne and Papakostas, 1994; 2001).

The selection pressures and the search for effective variation are only relevant if resources are scarce. Economic actors compete to obtain scarce resources because their supply is limited: Darwin’s “struggle for life”. This struggle can also be about the scarcity of the things people value in general: in current Western society time and attention are important examples. Business organizations in general are concerned with the struggle over capital and legitimacy.

A specific subcategory of evolutionary analysis in social science is the complexity approach, or more specifically the Santa Fe approach in scientific thought (Arthur et al., 1997). This approach has also been called the process-and-emergence perspective because it focuses on understanding the emergence of self-organizing structures that create complexity out of simplicity and order out of chaos through interaction between the basic elements at the origin of the process. The central argument of complexity is that “interactions between parts of systems create novel, unpredictable patterns, and that while the history of the system is relevant in understanding its dynamic, the isolation of individual parts of the system (analysis) does not reveal the causal mechanisms in the system” (Fuller and Moran, 2001, p.53). In economics this approach has led to new ways of thinking about economic problems: the (regional) economy is regarded as an evolving complex system (Arthur et al., 1997; Garnsey 1998b), and the enterprise as a complex adaptive system (Fuller and Moran, 2001) or an entrepreneurial system (Bruyat and Julien, 2000). Some even argue that the notion of entrepreneurial behaviour (entrepreneurs as agents of change that introduce novel behaviours into the economy) is an unavoidable component of any complexity based approach to the economy (Metcalfe et al., 2000, p.9).

Complex systems may behave in ways that are very difficult to predict, although they are sensitive to initial conditions. This sensitivity of organizations to initial conditions (strong path dependence on the level of the entrepreneur, enterprise, and environment) is known as organizational imprinting: business organizations tend to take on the characteristics of their founders (Selznick, 1957) and the environments that surround their early establishment (Stinchcombe, 1965). With evolutionary analysis alternative development paths are permitted to unfold from the same initial conditions. These paths cannot be predicted, but evolutionary analysis provides a framework for understanding the complex mechanisms that generate these different paths of systems. These complex systems are
the outcome of a relentless process of deliberate actions (adaptation) and unique, serendipitous interactions (feedback from the environment). Evolving enterprises as complex adaptive systems have to be observed in light of tensions between agency and structure. These structures enable and constrain the interdependent agents, and may act as selection forces. Through adaptation organizations may influence their environments, and through feedback the environments in turn influence the organizations. By implication, change is not an outcome of adaptation or environmental selection alone, but rather the joint outcome of intentionality and environmental effects (Lewin and Volberda, 1999). This points at the concept of coevolution, that is, mutual adaptation between the evolving unit and its environment. In this interactional, feedback perspective, the unidirectional view of cause-and-effect relationships gives way to a recursive bi-directional view of mutual causality (Lewin and Volberda, 1999). This adaptation in a coevolutionary process is path-dependent. Path-dependent processes may lead to outcomes other than those implied by historical efficiency. Complex systems (economies, firms) are subject to path dependent trajectories of development. At a lower level we could also recognize cognitive path dependence – “you can’t get everywhere from anywhere, and where you are now strongly constrains your potential future intellectual trajectories” (Clark, 1997, p.205; cf. Hayek, 1945). Path dependence enables and constrains adaptation. The concept of path dependence is useful, but problematic for explaining novelty created by entrepreneurship. Entrepreneurship is about path creation, mindful deviation from existing structures that are the outcomes of past adaptations. In this sense it involves real creativity and reflexivity, not just imitation (cf. Boschma and Van der Knaap, 1997; Garud and Karnoe, 2001; Tsoukas and Knudsen, 2002). This path creation points at the entrepreneurial paradox in evolutionary analysis: entrepreneurs are embedded and situated in social and material structures (path dependence) but also break out of these structures by virtue of acting ‘entrepreneurially’ (path creation).

2.4.2 Institutional analysis

Institutional analysis is about the comparative and historical analysis of human social institutions: social relations, structures, processes or objects (Sayer, 2000, p.114; Granovetter, 1992). The task of institutional analysis is providing us “with those conceptual tools required to penetrate the maze of social relationships in which the economy was embedded” (Polanyi et al. 1957, p.242). In institutional analysis institutions are described as a kind of infrastructure that enables and constrains human coordination and allocation of resources. These institutions can be formal or informal, and calculated or taken for granted. A distinction can be made between the institutional environment and institutional arrangements (North and Thomas, 1973; Williamson, 1994). The former enables and constrains the latter. Institutional arrangements define the way in which economic actors are organized (e.g. in a corporation, market, association, clan), while the institutional environment consists of the behavioural rules that define the context within which economic activity takes place. It is important to distinguish between the terms institution and organization. Institutions can be described as relatively durable rules governing human behaviour, while organizations are the ‘players’ (agents) or “groups of individuals bound together by some common purpose to achieve objectives” (North, 1990). In this study we are especially interested in the organizational form – the multi-person business enterprise – that an entrepreneurial venture usually takes (cf. Witt, 1999). Institutional analysis is about static phenomena as well as dynamic phenomena. Individual actors are likely to be changed and constituted by their institutional environment and these institutions are
often historically and locally specific. In its dynamic version, institutional analysis is a methodology that encompasses changing and historically specific objects of analysis. In this sense it is better to treat the concept of ‘institution’ both as a pre-given entity (structure) and as an activity of institutionalising (process), i.e. offering or imposing enabling constraints (Nooteboom, 2000, p.93). Organizations and institutions are considered as being produced by an ongoing process of organizing and institutionalising. Organizing is about the technical way in which certain resources and activities are coordinated, while institutionalising is about the process in which rules, norms and cultural beliefs arise (Scott, 2001). Institutionalisation can also be seen as an investment process in organizational forms that, for example, lower uncertainty or provide legitimacy and ultimately lower transaction costs. This also means that the institutional environment is no longer a fixed class of entities, but has become a relative concept that has to be defined for a specific ‘coordination problem’ in a specific context. More encompassing structures form the institutional environment for less encompassing ones (Nooteboom, 2000, p.94). Institutional analysis can therefore be practiced on multiple levels (and spatial scales; cf. Brenner 2001), as long as the levels of analysis are explicitly distinguished. The levels of institutional analysis lie along a continuum that ranges from personal networks at one pole and society itself at the other end. These levels of analysis can be related to agency and structures, in which ‘higher-level’ institutions (structures) provide enabling constraints at ‘lower-level’ institutions (agents). A social structure forms the institutional environment for another (lower-level) structure if it affects the causality of the actions of this lower-level structure (Nooteboom, 2000, p.111). For example, an enterprise is an institutional arrangement in the context of a national business system or national innovation system (national institutional environment). But the enterprise can be an institutional environment for intra-organizational processes. When networks are regarded as organizing institutions, network analysis becomes a specific branch of institutional analysis. In this respect networks can best be seen as “primarily cultural phenomena, that is, as sets of meanings, norms and expectations usually linked with behavioural correlates of various kinds” (Curran et al. 1993, p.13). Network analysis is useful as an analytical device for studying (locational) behaviour. As Thrift and Olds (1996, p.333) write: “The network serves as an analytical compromise, in the best sense of the word, between the fixities of bounded region metaphor and the fluidities of the flow metaphor.” Network analysis offers tools to identify and measure the structure of relationships within a selected group of actors. Networks can be conceptualised as intervening variables between institutional structures and the (locational) behaviour of actors. These institutional structures (e.g. region, social class, industrial system, corporate groups) are contextual variables which influence, but do not determine, the social networks the actors are involved in, and these institutional structures and the network in turn influence the behaviour of the actors. The focus of network analysis is based on the assumption of the importance of relationships among interacting units, and is thus completely in line with methodological interactionism. However, for more substantive analysis it needs to be linked to theoretical perspectives that provide us with operational assumptions and possibly hypotheses about ‘networks’. The lowest level of institution should be higher than human beings, as human beings cannot be regarded as institutions. Entrepreneurs are the human beings that creatively destroy existing institutions if they perceive such action as profitable (Schumpeter, 1980), and the entrepreneur is seen as the only actor who is able to ‘bear uncertainty’ that is involved in this action (Knight, 1971). In this regard the entrepreneur is opposed to the ‘manager’ who acts on the basis of routines, and
responds to changes in the environment by adaptation (Beckert, 1999, p.789). In institutional analysis the entrepreneurial paradox concerns innovation and tradition: the entrepreneur takes a reflective stance towards established practices (innovation), but is also dependent on the (enabling) established practices.

2.4.3 Time-geography

Time-geography is:

... a foundation for a general geographical perspective. It represents a new structure of thought under development, which attempts to consolidate the spatial and temporal perspectives of different disciplines on a more solid basis than has thus far taken place. Time-geography is not a subject area per se, or a theory in its narrow sense, but rather an attempt to construct a broad structure of thought which may form a framework capable of fulfilling two tasks. The first is to receive and bring into contact knowledge from highly distinct scientific areas and from everyday praxis. The second is to reveal relations, the nature of which escape researchers as soon as the object of research is separated from its given milieu in order to study it in isolation, experimentally or in some other way distilled. (Hägerstrand, in Lenntorp, 1999, p.155)

Time-geography should be seen as a foundation for building contextual theory. The basic point of departure in time-geography (or 'geohistorical analysis' as it is sometimes called) is that “when, where, and in what order something happens affects how it happens” (Tilly, in Pred, 1990, xi). In other words, the central explanatory variables are time, place and space, and irreversible sequence. The approach demonstrates the situatedness of human actions and their products in particular (time-space) settings whose arrangement then constrains and enables subsequent human actions (cf. path dependence).

Space and time are inextricably interwoven, even inseparable (Thrift, 1996). Phenomena can be studied in different time-scales ranging from biographies, epochs, and episodes to events and on different spatial scales ranging from ‘face-to-face’ proximity, districts, localities, regions and nations to continents. The spatio-temporal situation of people and resources, their presence and absence, even constitutes entrepreneurial phenomena. This constitutive property of (time-)space may be in terms of material preconditions for actions, but also in the constitution of meanings (Sayer, 2000). This latter aspect can be found in the changing meaning of relationships between actors when they become spatially separated, and more broadly in the change of the functioning of institutions.

Time-geography is a contextual approach in which human activity is treated as a social event in its immediate spatial and temporal setting (Hägerstrand, 1984; Thrift, 1996): “…human action always has to enfold in real dioramas [metaphor for situations] and whatever foreseen or unexpected consequences come about, they depend upon what is present and what is absent and in what sort of relations precisely where the actions happen” (Hägerstrand, 1984, p.376). This context is not necessarily ‘local’, it is “a performative social situation, a plural event which is more or less spatially extensive and more or less temporally specific” (Thrift 1996, p.41). Human practices are always situated in time and space, and the contexts in which activity is situated are the result of institutions which themselves reflect social structure. These institutions can be seen as nodes in time and space around which human activity is concentrated (Thrift, 1996).

Time-geography is complementary to the other two modes of analysis as it claims that “conventional social science has given history privileges while dismissing geography as unworthy of
attention” (Tilly, in Pred, 1990, xii). In this sense it criticizes the neglect of the spatial dimension in, for example, institutional and evolutionary analysis. These two modes of analysis take space only implicitly into account: in institutional analysis the nation-state is often treated as the ‘natural’ boundary of certain institutions and in evolutionary analysis the selection environment is often implicitly territorially bounded. Hodgson (1996, p.1942) even states in this respect that “biology has an acute awareness of niche and location and its metaphors can thus help to enrich the spatial dimension of social science”. There are also some more explicit institutional (Martin, 2000) and evolutionary economic geographies (Boschma and Lambooy, 1999; Boschma and Frenken, 2003).

Time-geography illustrates the way that people trace out paths in time and space, moving from one place to another in order to fulfil particular purposes. The central concepts of this time-geography are path, project and situation. Continuity and corporeality are essential, as they set limits on how and at what pace one situation can evolve into a following one. People draw paths that are made up of projects. The concept of project refers to all events in evolving situations that an actor must secure in order to reach a goal, i.e. the practical realizations of intentions (Hägerstrand 1982, p.324). This path can have different time-scales ranging from a lifetime (starting at the point of birth and ending at the point of death) to a daily path. For analysing the spatial behaviour of actors these constraints and their interactions (in direct obvious ways and in indirect ways which are less easily discovered) have to be studied together with intentions of the actors. The basic model of time-geography (Hägerstrand, 1970) emphasizes the constraints of space and time on behaviour of individuals. Three types of constraints are conceptualised. The first one – capability constraints – are “those which limit the activities of the individual because of his biological construction and/or the tools he can command” (Hägerstrand, 1970, p.12), i.e. a specific set of biological and technical constraints to human behaviour. Coupling constraints are the second type, which “define where, when, and for how long, the individual [path] has to join other individuals, tools, and materials in order to produce, consume, and transact” (Hägerstrand, 1970, p.14). The necessary grouping of several paths can be referred to as a ‘bundle’. An example of coupling constraints is the fact that enterprises – as bundles of (intangible and tangible) resources – have concentrated most of their activities and resources at one point in space. In contrast with the predictions of many futurologists, most enterprises are still not ‘virtual’ and most people work together in spatial proximity and not in ‘virtual teams’. However, this bundle does not always have to occur within spatial proximity of the composing parts. Immediate face-to-face contacts are not a precondition, although the ‘human moment’ is still very important (Hallowell, 1999). Telecommunication allows people to form bundles without being spatially proximate (time-space distanciation). Place-to-place interactions are made possible by (computer-) mediated place-to-place contacts with internet, telephone, and so on (Wellman, 2001). This means that in electronic space distance and transportation do not matter, the only necessity is being connected in ‘electronic spaces’. If logistics and the supply of material products are involved, however, time costs induced by distance seem less affected by new and flexible transportation technologies. On the contrary, in some flexible and highly specialized production systems ‘just-in-time’ and other spatial logistics are of major importance and have important locational implications. Some management scientists even regard ‘time’ as the most critical factor in management (Brown and Eisenhardt, 1998; Van den Bosch, 2001). Customers want to decide as fast as possible and also want to get new goods and services quicker and quicker, which means that firms have to focus upon more rapid product development. For firms this means that they have to mobilize all the available
knowledge, not only to accelerate the availability of their goods and services, but also to develop new solutions much faster. This also means that the organizational structure of the firm has to be adapted, or even completely renewed. The search for evermore fluid and market-responsive organizational forms has led to a focus on network enterprises and even projects as a form of economic organization. These projects operate in a specific societal context: "networks, localities, and institutions feed essential sources of information, legitimation, and trust that provide the very preconditions for the ‘projectification’ of economic organisation" (Grabher, 2001, p.1329).

The third type of constraints relate to authority. These authority constraints restrict the set of possible actions in specific domains. A domain refers to “a time-space entity within which things and events are under control of a given individual or a given group” (Hägerstrand, 1970, p.16). Actions in these domains are restricted by power, informal and formal institutions. Domains can be found with different durations and at different, nested (spatial) scales (cf. Swyngedouw, 1997). For example the premises of a firm may be a domain that lies in the domain of a municipality, which in its turn lies in the domain of a nation. While nations have a rather long duration, the premises of a firm might have a rather short one. Decision-makers in different domains can influence each other, for example, by trading or by negotiation.

With time-geography the dialogic between the entrepreneur and new value creation can be analysed, within an ongoing process and situated within a specific context. Entrepreneurs introduce ideas that are completely new, or new to certain contexts. New ways of organising – or re-bundling – resources and collaborators from different contexts are introduced to realise opportunities perceived by the entrepreneur. The new organisation that is created by the entrepreneur can be seen as the creation of a new bundle, a project that serves the purpose of jointly realizing the intentions that the entrepreneur is unable to realize by himself alone (capability constraints) (cf. Witt, 1999).

![Figure 2.1 – Entrepreneurship in interaction with its context](image)

22
2.5 Summary and conclusion

In this chapter we sketched an outline of a contextual approach on entrepreneurship. We started with a short introduction of the two most relevant scientific disciplines for our study: economic geography and entrepreneurship studies. In these two disciplines issues concerning networks, embeddedness and context are centrally important. In the next section we discussed the meta-theoretical foundations of the proposed contextual approach on entrepreneurship. We assume that cognition is constructed by embodied agents in interaction with their material and social environment. The world in which we live is to some extent socially constructed, but also exists independent of our knowledge about it. These positions lead to a constructive realism (cf. Basset, 1999; Nooteboom, 2000). As the interaction between the embodied agent and his or her environment is central, the starting point for analysing behaviour is a methodological interactionism: interactions between (groups of) human beings and their context.

Three different modes of analysis each offer complementary insights for a contextual approach on entrepreneurship. For the explanation of entrepreneurial phenomena we need to take into account the interactions between entrepreneurial processes (initiated by entrepreneurial agents) and their contexts (see figure 2.1). We need institutional analysis, evolutionary analysis and time-geography for studying entrepreneurial phenomena – in this study reflected in evolving enterprises – in context. Evolving enterprises can be regarded as the organizational context of entrepreneurship, while evolving enterprises are situated in a selection environment that is conditioned by an institutional and geographical environment.

For concrete research on entrepreneurial phenomena we may use more substantive theories that are congruent with this approach, like the organizational capabilities approach (Dosi et al., 2000b), the resource dependence perspective (Pfeffer and Salancik, 1978), and social action theory (Granovetter, 1985). These foundations provide a basis for theory construction and concrete research on entrepreneurial phenomena in the future. Only with more empirical research into these phenomena we can learn and unlearn, and possibly even make progress. We will start with a theoretical and empirical elaboration on the spatial organization of evolving enterprises in the following chapters.

Notes
1 This chapter is largely based on material that previously appeared in papers presented at the NETHUR workshop “Re-Theorising Economic Geography” (24 April 2001, University of Nijmegen), the European Regional Science Association Summer Institute (June 2001, University of Groningen), the session “The Relational Turn in Economic Geography” at the 98th Annual Meeting of the Association of American Geographers, (see Stam, 2002a), and at the “Round table: New trends and approaches in entrepreneurship research” at the RENT XVI Conference (see Stam, 2002b).
2 This refers to the availability of suitable individuals to occupy entrepreneurial roles.
3 In such an interactive process the traits or personality (cognitive frameworks) of entrepreneurs still may play a role, but only in explicit interaction with their environment (see Kelly, 1963; Van Gelderen, 2003). Such cognitive frameworks organize the opportunities for particular choices, and for the creation and perception of options (Loasby, 2002).
Networks have gained importance for two reasons: an empirical one (purely personality-based theories turned to have insufficient explanatory power) and a methodological one (see the section 2.3 on methodological interactionism).

To date, these networks have been theorized principally on an inter-firm basis, but not on an intrafirm or interpersonal basis (Ettlinger, 2001). In contrast to this, entrepreneurship studies have long been involved in studying interpersonal, entrepreneurial networks.

See Barnes (2001), Scott (1999), and Van Rietbergen and Stam (2001) for a recent history of economic geography.

Cf. Haraway (1991) who emphasizes the embodied nature of theorizing – that human conversation as a metaphor should stress the corporeality of the human. Theories represent embodied knowledge, meaning that they are constructed by particular kinds of human bodies, each of which makes a difference to what is seen. Theoretical knowledge is ‘situated’ meaning that it is both partial and embodied (Haraway, 1991, p.184). Building on the work of feminist scholars who have challenged the notion of scientific objectivity, Haraway describes the model of ‘situated knowledges’ as a way to account for the partiality of scientific knowledge without falling into the trap of relativism. She also argues that the most accurate knowledge about the world is situated knowledge, precisely because it foregrounds and remains accountable to the locations in which it was produced.

In innovation studies there has been a shift from the linear model to the interactive model, in which technology is not regarded as ‘manna from heaven’ but as something that evolves in interaction between actors. For this interactive learning process the focus is not on pure scientific knowledge (episteme) but on the practical and tacit knowledge (techné) of the user (Nonaka and Takeuchi, 1995; Polanyi, 1962). See Giddens (1991) and Taylor (1994) for the relevance of methodological interactionism in identity studies.

However, this does not mean that generalizations are not possibly anymore: (realist) research aims for analytical generalizations (Yin, 2003) and searches for necessary structures and mechanisms explaining empirical events (Sayer, 1992; cf. Elster, 1998; 1999).


In the same sense current models of ‘self-organization’ assume that the system organizes itself: there is no ‘self’, no agent inside the system doing the organization.

The initial evolutionary approach suggested by Alchian (1950) was proposed as a modification of economic analysis based on the assumptions of the homo economicus. Alchian argued that incomplete information and uncertain foresights made it impossible for business firms to maximize profits. And he thus dispensed the rational choice axiom of economic agents, operationalized as profit maximization. This led to the so-called Alchian-thesis, that is “the view that competition represents a Darwinian selection mechanism that produces exactly the same outcome that would ensue from a world in which consumers maximized utility and businessmen maximized profits” (Blaug, 1992, p.249). This means that the bulk of traditional economics would be unaffected if we assumed that purposeful human behaviour does not matter in economic analysis.

This refers to Schumpeterian novel combinations (dynamic efficiency), creativity and innovation in general; double loop learning, in contrast to mere adaptation (single loop learning or static efficiency).

Path dependence means that the state of a system at time t constrains, informs, and affects probabilities of realizations of the state at time t+1 (Murmann et al., 2003, p.10).
16 An organization is a ‘corpus’ with a ‘rationale’: a corpo-ration.

17 Cf. Taylor’s (1964) distinction between the ‘geographical’ environment and the ‘intentional’ or ‘behavioural’ environment. The intentional environment is the situation under its intentional description for the agent (as the environment “is for him”), while the geographical environment is the situation “as it really is”, but not completely recognized by the agent and the teleological explanation of his action (i.e. intentional behaviour).

18 Corporeality refers to the bodily structures, the corpus of human individuals that enables and constrains their cognition and action, and also to human intentions (Hägerstrand, 1982; Van Paassen, 1981). This latter factor means that understanding people – entrepreneurs – as “a living body subject, endowed with memories, feelings, knowledge, imagination and goals – in other words capabilities too rich for any conceivable kind of symbolic representation” is decisive for explaining the direction of their paths (Hägerstrand, 1982, p.324). Cf. footnote 7.

19 This introduction of existing structures or entities to new contexts has been called ‘exaptation’. The Oxford Dictionary of Earth Sciences defines exaptation as “A characteristic that opens up a previously unavailable niche to its possessor.”