

This book presents the crafting of a metatheory of small firm performance and entrepreneurship. The dynamics of the small firm world arises from the entrepreneurial agency, which introduces and manages diverse entrepreneurial projects, afforded and constrained by the “structural inheritance”.

Metatheory is proposed as a solution for facilitating the act of productive research in the multidimensional and heterogenous small firm world, where universal explanations exist only at a rather high level of abstraction. If such a world is studied from a narrow perspective, only a single slice of the multidimensional reality may be observed between the bars of a “paradigm prison”.

The metatheory may be used as a colouring book in contextual studies. It could serve as a common platform for truly interdisciplinary studies of the small firm world and entrepreneurship.

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Tuomas Kuhmonen

Metatheory of Small Firm Performance and Entrepreneurship



METATHEORY OF SMALL FIRM PERFORMANCE AND ENTREPRENEURSHIP

TUOMAS KUHMONEN



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and Entrepreneurship**

Tuomas Kuhmonen

*Fin-Auguuri Oy
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ABSTRACT

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This study presents a metatheory of small firm performance and entrepreneurship as an appropriate analytical structure to besiege the heterogenous and multidimensional phenomenon comprehensively. It has been distilled from theories, concepts and research findings in the fields of economics, sociology, psychology, biology, strategic management, organization studies, anthropology, dramaturgy, philosophy and entrepreneurship, among others.

The entrepreneurial agency may facilitate entrepreneurial projects in various contexts and on diverse platforms (e.g. small firms). Such a project implies commitment to a specific course of action or path accompanied by strategic, risk, directional futures and learning imperatives. It may generate local or global novelty and exhibit varying "fits" among related aspirations, resources and behaviours. The resulting performance may be observed by the entrepreneur, the project, the small firm, or the environment.

Following analytical dualism, the entrepreneurial agency was distinguished from the personal agency, which affords and constraints entrepreneurial action in a similar way as the economic and social-institutional agencies. This "structural inheritance" may dominate the thought and the action of the entrepreneur. Consequently, the generative, selective and coherence-maintaining forces and the projects are heterogenous. Universals exist only at the "metalevel". The outcomes of entrepreneurship are thus hard to predict enhancing its capacity to change the "structural inheritance".

Metatheory comes with three research lenses of changeability, subjectibility and temporality. Metatheory could form the "hard core" of a scientific research programme serving progressive and cumulative research related to the small firm world and entrepreneurship. Its usefulness and applicability was tried out in three empirical studies dealing with entrepreneurial projects on Finnish farms.

Key words: Metatheory, small firm, entrepreneurship, multidimensionality

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I opened up the locked door and went in to the house of sciences. It was dark inside. I opened up all the doors and all the windows to let some light in. Then I looked around. I saw lots of different kinds of strange tools, pieces of ripped papers, some empty bottles of beer and probably Italian red wine still left after the battles that had taken place in the house. Huge piles of papers were furnishing the rooms. I tried to reorganize some of the piles to see what this was all about, to see some meaning in all this mess. I threw some things out of the window. At the end, I had some papers arranged in a new pile. I laid them on the floor. Then I closed the windows, locked the door again, and left the house. It was an exciting visit.

During this visit, I read some very inspiring books and articles I have cited whenever appropriate, but their “non-referenced” impact on my thinking is not fully acknowledged without additional credit. The thinking presented in the following pieces of work has been a source of many inspiring ideas and reflections:

Danny Miller 2007. Paradigm Prison, Or in Praise of Atheoretical Research. Strategic Organization 5 (2), 177-184.

Herbert A. Simon 1996. The Sciences of the Artificial. Third Edition. Cambridge, MA.: MIT Press.

Edward O. Wilson 1998. Consilience: The Unity of Knowledge. New York: Random House.

On behalf of the mankind: very much appreciated. Besides these masterpieces of thinking, a number of people have either guided or inspired me in taking steps on the path of research business. First, folks at home have provided me with good ideas and understanding of the interdisciplinary and multidimensional aspects of life – the central theme of this study. During the first hesitant research attempts, it was professor Dirk Strijker (then) at the Agricultural Economics Research Institute LEI-DLO, The Hague, the Netherlands, who at the halfway of my stay there said: “Boy, you have written about things that you know, but not about things that you are looking for”. After throwing my first ever research report in the garbage can I decided to write about things that I do not know yet.

Later on, director Seppo Aaltonen (then) at the Pellervo Economic Research Institute PTT, Helsinki, Finland, commented on my first research report for the institute: “Boy, you write complicated ideas that I may figure out by knowing you, but I bet the readers are not able to get them straight”. After rewriting the whole report filled with remarks by red ink I decided to write without twists and turns. Or at least try it. Learning to think and learning to write are essential skills in this business, indeed. I could not have got a better guidance for them.

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exercise. His deep interest in the true essence of entrepreneurship has been both admirable and instructive.

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This piece of work deserves also an explanation for its slightly special character. After working with several actual small businesses, administrative and industrial organizations, consultancy and counselling, and after preparing some 60-70 research reports about almost everything, it soon became evident that once the dissertation was on the table, it should be different from my previous works. It should open up a possibility to study things that I do not know and not just repeat things that I have already learned. So, I ended up with crafting something beyond "just one additional empirical study": a metatheory of small firm performance and entrepreneurship. It has been a pleasure to work with new ideas.

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Vesanto, Finland, March 2010

Tuomas Kuhmonen

Part I

**MULTIDIMENSIONALITY OF THE SMALL FIRM
WORLD**



1 Introduction

It was one misty morning when one of the sheep left the herd. In the evening it came back, but left again the next morning. The members of the herd were wondering why she left, since there were wolves around. On the third morning, another sheep followed her to see why the trips were actually done. The wanderer had followed a rainbow and found a rich pasture in a valley behind the mountains. On the fourth morning, the whole herd moved there.

This long essay discusses sheep, ants and number of other animals, but mainly to illustrate the storyline discussing the small firm “species”, which has been claimed to be flexible and niche-oriented (e.g. Dean et al. 1998, 724), entrepreneurial (e.g. Thurik & Wennekers 2004, 142) and innovative (e.g. Storey 1994, 11) – just like the sheep looking for new opportunities. However, before proceeding with this inquiry, we must address the issue of how to explore this peculiar world and how to avoid the known “wolves” lurking along the path of an innocent student.

1.1 The Paradigm Prison

How Do You Get There?

When a scientist engages herself in studying small firms or other organizations, she most often ends up with testing a specific theory in a specific context. Her route ahead is paved with the possibilities and fenced by the limitations of that particular theory. The data accessible, the time usable and the skills employable additionally condition this effort. As a result, some new territory of the reality may become covered by the specific theory, at the time of the inquiry.

If she is a pioneer with her unique approach, someone will follow. The layers of explanations conforming to that approach become thicker and more dense. Over time, the fences along the route grow higher as more precise and rigid assumptions are needed to get deeper in the analysis. The route becomes narrower and narrower. More is found about less. Finally, a *school of thought* may emerge along with the legitimations of that specific approach, when its novelty, continuity and scope have become credited enough by other scholars (McKinley et al. 1999,

643). A specific way of seeing the world becomes more solid (ontology), the ways of interacting with this “true essence” will consolidate (epistemology), and some novel methods to reach it may emerge (methodology). This avenue is “sufficiently unprecedented” to achieve some enduring attraction and “sufficiently open-ended” to leave some problems unresolved (Kuhn 1996, 10). A *paradigm* is born.¹

Paradigms host research traditions. Kuhn himself will explain the role for which paradigms are needed (Kuhn 1996, 10-11):

“... some accepted examples of actual scientific practice – examples which include law, theory, application, and instrumentation together – provide models from which spring particular coherent traditions of scientific research ... The study of paradigms ... is what mainly prepares the student for membership in the particular scientific community with which he will later practice. Because he there joins men who learned the bases of their field from the same concrete models, his subsequent practice will seldom evoke overt disagreement over fundamentals. Men whose research is based on shared paradigms are committed to the same rules and standards for scientific practice. That commitment and the apparent consensus it produces are prerequisites for normal science, i.e., for the genesis and continuation of a particular research tradition.”

Variety of names for these kinds of coherent bundles exists, like “approach”, “move”, “perspective”, “discipline”, “school”, “paradigm” or even “orthodoxy”, but they all tend to contain some specific logic between the three levels of beliefs and methods (Guba 1990, 18). Keeping with the dogma of thinking provided by these kinds of constructions may be beneficial for research efficiency: one may start with a ready-made launch pad for empirical research. It becomes easier to organize knowledge, to formalize predictions, to deepen explanation further on and to develop rigorous hypotheses (Miller 2007, 177).

But there is a dark side as well. A scholarly “well defined” perspective may provide very partial, rigid or even a biased view of the reality. For example,

¹ A paradigm, as introduced by Kuhn in 1962, contains a set of basic beliefs about reality. In the literature, many of the paradigms find their place somewhere on the deeply-rooted continuum between the “decoupled”, objectivist paradigm (with positivist epistemology and nomothetic methodology), and the “coupled”, subjectivist paradigm (with anti-positivist epistemology and ideographic methodology), depending on whether “reality” is considered to reside outside the human consciousness “out there”, or to be just a product of one’s mind (Burrell 1996, 650; Burrell & Morgan 1979, 1).

The variety of paradigms for a student of the business firms or other organizations to choose is rich: radical humanist, interpretative, radical structuralist and functionalist by Burrell & Morgan (1979, 22); positivist (conventional), postpositivist, critical theory (ideological) and constructivist by Guba (1990, 19-27); being-realism and becoming-realism by Chia (1996, 33), to name a few. The names and views provided by these disparate “glasses” of viewing the world in a specific way are not that clear-cut and well consolidated. In organizational studies, for example, the borderline between a paradigm and a school of thought is blurred, and the soil has been favourable for diverse schools to flower. Regarding the paradigms, Donaldson (1996, 4) lists population ecology, institutional theory, resource dependence theory, agency theory, transactions cost theory, not to forget the positivist structural contingency theory he advocates. Regarding the schools of thought, Astley and Van de Ven (1983, 247) list natural selection view, system-structural view, collective-action view, and strategic choice view. The roads are many, but crossed and overlapping.

within the ecology school of organizational life there is a profound emphasis of inertia, inability of organizations to change during their lifetime (Hannan & Freeman 1977, 957): “... we will continue to doubt that the major features of the world of organizations arise through learning or adaptation”. This seems to be at odds with the reality of many modern, dynamic business firms struggling against inertia by “developing strong ‘dynamic capabilities’”, by successfully developing abilities for reconfiguration, redirection and transformation (Teece et al. 2000, 334, 339). As another example, the neo-classical school in microeconomics confesses the universal and deterministic premises of utility and profit maximization by a fully rational choice (e.g. Henderson & Quandt 1980, 13, 75; Samuelson 1947, 76-77, 97-98). This seems to be a rather inappropriate analytical apparatus for capturing the behaviours in the modern business life of sudden changes, heterogeneity of agents and vast complexities beyond any global calculation of comparative statics (e.g. Hodgson 1999, 29; Nelson & Winter 1982, 51-71). It is difficult to embrace genuine novelty found in the real business world by a closed system (Hodgson 1999, 141). These are not only descriptions and explanations of reality that seem unrealistic, contradictory and narrow. They express the lack of any unifying theory and the fragmented corpus of understanding actually found in many fields of science, but especially in the social sciences. *A paradigm paves a specific convenient way for meeting the social world, but may blind or otherwise prevent one from seeing and capturing many essential features of this reality.*

As such, there are obvious risks in paving and fencing particular, narrow routes for exploring and framing the reality. Despite these risks, keeping with separate internal standards and separate evaluation criteria for each paradigm is seriously considered to enhance accumulation of knowledge along “mutually exclusive ways of seeing the world” (Burrell & Morgan 1979, 397-398). In this view, the paradigms are incommensurable (Willmott 1993, 682) – and should be. Social science, and organizational and business research as a part of it, seems to become energized rather by scientific demands of theory proliferation than by pragmatic demands of theory consensus, mediation and synthesis (Fabian 2000, 361; Martin 2003, 411). The paradigm prison seems to be a voluntary destination for many.

How Does the World Look Like Between the Bars?

A paradigm means taking some specific perspective, a specific “slice” of the several dimensions available for accessing the reality. At worst, this setting leads to confrontations between the schools of thought rather than to the progress of science and accumulation of genuine understanding about qualities of the reality. Conflicting views about the adaptability of organizations and its consequences for performance provide a good illustration. In the ecology stream, firms are considered to be inflexible. Due to resource specificity and strong tendency toward institutional inertia they are subject to strong environmental selection forces (Carroll & Hannan 2000, 6; Hannan & Freeman 1977, 957; Hannan & Freeman 1984, 151). A firm population changes gradually as old firms are replaced by new ones along the fit-based *selection process*. On the other hand, in the strategic management stream, active modification of the firm structures and processes in line with the demands and opportunities placed by the environment

is possible – and the key to the survival of a business firm (Chakravarthy 1982, 35; Chakravarthy 1986, 455-456; Johnson et al. 2005, 116). Then, a firm population changes gradually as firms restructure along the fit-based *adaptation process*.

In the two conceptions, *the flow of influence* runs in the opposite, but single, direction. In order to avoid ignoring either external or internal motors of adaptation in trying to understand how firm populations change, a more comprehensive framework is necessary, as remarked by many (Aldrich & Martinez 2001, 52; Baum 1996, 106; Baum & Singh 1996, 1286; Bourgeois 1984, 593; Burgelman 1991, 259; Drazin & Van de Ven 1985, 536; Hrebiniak & Joyce 1985, 348; Levinthal 1991, 144; Lewin & Volberda 1999, 530; Sorge & Brussig 2003, 1264). The two conflicting views also illustrate, how easily *epistemological* foundations (e.g. only micro or macro level of observation and explanation) may produce conceptual paradoxes. The tradition of controversy around the selection-adaptation phenomenon proposes the concept of *adaptation* to be a promising candidate to become studied as a client of the “paradigm prison”.

Taking another example, many of the small firm growth studies do not control for the actual intentions of the entrepreneur or the manager (Autere 2005, 4). Explaining realized growth by various factors may become biased, when a significant share of firms under study are not willing to grow during the observation period. For example, 51 % of the Finnish small and medium sized firms were not aiming for growth in February 2007 (Pk-yritysbareometri, kevät 2007). According to the survey, the main reason for this was that “*the current size of the firm is appropriate*”, which is at odds with the premises of the conventional economic theory. Even though growth may be an important factor for survival in the long run, many firms exhibit long periods of stability as featured, for example, according to the quantum view of change or the punctuated equilibrium theory (Kirkpatrick 1982, 846; Miller 1982, 148; Miller & Friesen 1982, 890; Miller & Friesen 1984, 209; Romanelli & Tushman 1994, 1162). Still, “*past research on growth firms has defined ‘growth firm’ without discussing to what extent growth is a continuous or temporary phenomenon*” (Dobbs & Hamilton 2007, 315). The phenomenon is touched upon by the ecology thinking, where a firm stays within a niche that does not overlap with others to the extent that competition will push the firm into a motion of struggle for survival (Hannan et al. 2003, 325-328). Rather than just afforded by the resources and capabilities or constrained by the environmental characteristics, performance is also affected by the *idiosyncratic* aspirations and intentions. In order to frame performance correctly when trying to understand how firms change, a comprehensive framework including all the relevant domains is necessary also from a *methodological* point of view. Leaving the entrepreneur or the manager completely overshadowed by the environmental determinism seems strange, since they also seem to have quite a lot of scope for diverse aspirations. The logical obscurity around *performance* proposes this concept to be another promising candidate to become studied as a client of the “paradigm prison”.

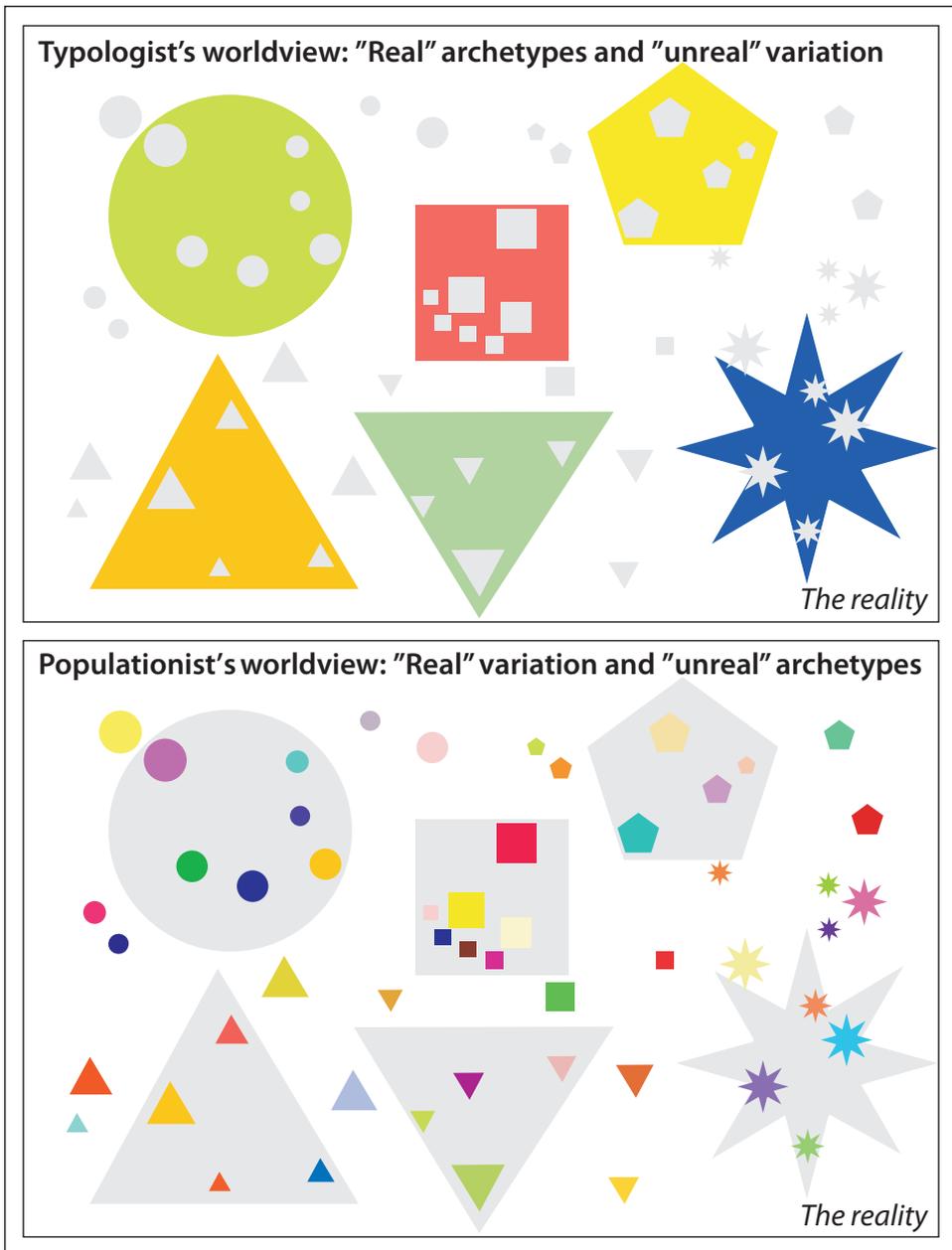


FIGURE 1 Typologist's and Populationist's Worldviews

What is the Scientific Interest?

These problems can never be fully avoided, since conducting research is not more “optimal” or more “complete” *per se* than any other social activity. It is affected by financial, temporal and technical limitations, policies, emotions and capabilities of the scholars and other parties involved. Notwithstanding these, more attention could be given to the *ways by which knowledge and understanding of the reality accumulates*. More effort could be placed on building robust general frameworks that bind together more focused and contextual research findings, and provide starting points for carrying out this kind of research. Acknowledging that logically important domains may be left out (adaptation vs. selection, intentions vs. outcomes), it seems questionable whether the scientific discussion around the themes of adaptation, selection and performance actually represent such accumulation of true understanding.

It is also worth noting that different schools of thought may indeed reflect disparate views on the same subject, contributing to a more holistic understanding of the issue. As Lewis (2000, 774) points out, paradox can be a fruitful starting point that provides researchers with a frame for “*making sense of rising plurality and change*”. Still, rigidity and separation of views may be confusing, as in the case of adaptation and performance issues. Should we indeed discuss passive replacement *or* active adaptation? Or do these modes of change just cover separate groups of firms, separate events or separate contexts? Or are they based on different time periods? Or are there some specific structures or processes that subject some firms to selection and other firms to adaptation? What sense does it make to compare financial results between firms that have different performance conceptions and goals? Or are all these rigidities just representations of “*paradigm prisons*” (Miller 2007, 179-180), where narrowness of the view prevents capturing a holistic phenomenon in a realistic way?

Deeper understanding of the adaptive behaviours and performance of firms should open up a less biased view of the phenomenon – not a more biased one. There is evidently a reason to create frameworks that alleviate these kinds of obstacles in the accumulation of holistic understanding. The value of such frameworks lies in *coping with the dual nature of understanding complex social changes*. On the one hand, heterogeneity and complexity ask for general frameworks and compression of variation to see some order and meaning in the changes. On the other hand, the very same characteristics of social life ask for very detailed investigations of separate populations in diverse contexts.

Mayr (1976, 27-28) illustrates two approaches which have been in existence for a long time to cope with these contradictory needs found in many sciences – typological thinking (essentialism) and population thinking:

“Typological thinking ... there are a limited number of fixed, unchangeable ‘ideas’ underlying the observed variability, with the eidos (idea) being the only thing that is fixed and real, while the observed variability has no more reality than the shadows of an object on a cave wall ... Since there is no gradation between types, gradual evolution is basically a logical impossibility for the typologist. Evolution, if it occurs at all, has to proceed in steps or jumps ... The populationist stresses the uniqueness of everything ... Indeed, even the same individual changes continuously throughout its lifetime

and when placed in different environments. All organisms and organic phenomena are composed of unique features and can be described collectively only in statistical terms ... Averages are merely statistical abstractions, only the individuals of which the population are composed have reality. The ultimate conclusions of the population thinker and of the typologist are precisely the opposite. For the typologist, the type (eidos) is real and the variation is an illusion, while for the populationist the type (average) is an abstraction and only the variation is real. No two ways of looking at nature could be more different."

One may see what one is looking for, but worldviews need not be exclusive. Both views may contribute to the accumulation of understandings about the reality, because in real life many phenomena are not very clear-cut: they contain some typological characteristics or archetypes, and some variation or randomness (Figure 1). Adaptation intuitively includes a change from one state to another one over time, but also asks for considering variation. For example, the dominant archetypes of successful business organizations may reflect acceptance of the markets today, but the variation outside them may carry important innovations seeding the success and superior performance for tomorrow. The distinction between the archetypes and the variation is also inflated by the vague "sharpness" of any explanation of the social reality: the social reality is flavoured by an idiosyncratic perception and cognition between any causes and effects (Simon 1959, 272), making any typology or archetype fluid in consistency. *In a complex world very precise descriptions and explanations may be artificial, biased or misleading.*

What Kind of a Map is Useful?

An approach enhancing both comprehensive and context specific understanding, and avoiding the "paradigm prison", is a *multiparadigm perspective*, advocated by Denzin (1989), Gioia and Pitre (1990), and Lewis and Grimes (1999). The central idea of the approach lies in not searching for *the* truth, but in searching for *comprehensiveness* stemming from the different worldviews and paradigms (Gioia & Pitre 1990, 587). Any science or scientific paradigm will face a frontier problem. They all work on their own configurative islands. A paradigm as a specific way of thinking carries some fundamental assumptions about the nature of the phenomena it studies (ontology), about the nature of the knowledge concerning them (epistemology) and about the appropriate ways of accessing that knowledge (methodology; Burrell & Morgan 1979, ix; Guba 1990, 18). In this regard, a paradigm is a normative worldview (Lincoln 1985, 29). Starting an inquiry with "full load" of premises may lead to sharp conclusions but only within the territory of the "home island". For example, the conventional microeconomics has helped to make sharp predictions on the firm's optimal volume of production while being on a market, but it has been unable to explain existence and heterogeneity of firms (Barney & Ouchi 1986, 8-9). In this case, one has not been able to reach even the edges of ones own island!

A key for escaping the paradigm prison is the multiparadigm perspective: the *topic* becomes the dominant driver of inquiry rather than the paradigmatic ontology, epistemology and methodology (cf. Rajagopalan & Speitzer 1997, 73). The scientist can conquer the sea of understanding by investigating one

archipelago at a time with a set of different boats, rather than by selecting one boat and cruising only to the islands that are accessible for that boat. Gioia and Pitre (1990, 595) illustrate this issue within the field of organizational analysis:

“Given that a uniquely correct perspective can not exist ... and given the multiplicity of organizational realities, a pluralistic, multiple-perspectives view becomes a necessity for achieving any sort of comprehensive view. Such a multiple-perspectives view requires that organizational theorists consider the set of theories relevant to a given topic from some viewpoint beyond that of an individual paradigm.”

North (2005, 11) reminds about the same issue in trying to understand the [economic] change:

“... human environment is divided by social scientists into discrete disciplines - economics, political science, sociology - but the constructions of the human mind that we require to make sense out of the human environment do not coincide with these artificial categories. Our analytical frameworks must integrate insights derived from these artificially separate disciplines if we are to understand the process of change.”

Without doubt, the new horizons opening up on the particular route ahead may be less useful than a map of all the routes available or a possibility to climb higher to have a wider view. This is an especially valid option for understanding the heterogeneous social world. *In reality, there are no paradoxes: reality exists just as it is.* The paradoxes are made in our own minds, so inclined to make partial, overlapping and conflicting typologies of the heterogenous world based on some narrow view from some paradigm prison: habitual, cognitive, or “scientific”.

1.2 The Problem of Multidimensionality

Denying or Confessing Multidimensionality

Besides biased human sensemaking, the other underlying reason for the apparent contradictions may be the genuine *multidimensionality* of the phenomenon. Taking organizations as an example, the reasons, the processes and the outcomes of organizational change are all multidimensional, complicated constructs. They are embedded in the domains of people, organization and environment (Gartner 1985, 698) and attached to the qualities of their structures and change processes (Miles & Snow 1978, 7). These may become characterized by various sciences like economics, psychology, sociology, and organization theory. But taking separate one-dimensional “slices” of the genuinely multidimensional organizational reality easily results in anomalies, contradictions and paradoxes in the eye of the beholder.

There is a long tradition of neglecting multidimensionality in economics. Choice provides a good illustration. For the purposes of choice, simplification of the reality is necessary (Simon 1955, 114). The economists have done so to an extreme level and have simplified the human mind to a calculator. “Full rationality” intermediates desires (preferences) and choices (alternatives) as a global calculation deterministically maximizing utility (Hiness 1988, 6). Some

attribute this kind of an extreme edge of perfect knowledge to the God, but economists to the “economic man”, the “administrative man” with limited or bounded rationality falling far below (Simon 1955, 114; Simon 1957, 3). The amount of information still represents just one problematic dimension affecting “rationality” of the behaviour of various actors.

In organizational analysis, some confess that motives and modes of organizational behaviour are complex and diverse, a mosaic (Chao & Moon 2005, 1128). Propositions to employ more multidimensional concepts and measures for the performance (Lumpkin & Dess 1996, 153) and the environment (Cannon & St. John 2006, 318) have been made. Day by day, these claims make more sense when diversity of organizational and business life increases and single “slices” turn less and less useful in capturing the reality. Even the concept of rationality has more dimensions beyond information. Hindess (1988, 66), for example, discusses attitudinal rationality as a consistency between ones’ beliefs and desires, and intentions, and behavioural rationality as a consistency between ones’ intentions and actions.

Indeed, in economic and organizational behaviour, the problematics of *rationality* has a close relationship with the problematics of multidimensionality. Several aspects of the internal and environmental characteristics have to become integrated into some sort of cohesive whole enabling interpretation, “rational” analysis and “optimal” action. Alternatively, complexity (or lack of resources or will to manage them) will overrun the rational grip and less rational choices take command, whether approximate or bounded rationality (Simon 1955, 114), intuition (Allinson et al. 2000, 41), fuzzy logic (Zadeh 2008, 2753-2754), satisficing (Simon 1956, 136), or something else.

The frontier problems faced by the rationality premise serve to illustrate the importance of *coherence* in understanding “reality”. Complexity may hide order and coherence of explanation. To achieve explanations, simplification is needed. Simplification helps to make sense, but destroys variation. This variation asks for attention since it may be a seed of brilliant scientific explanation or business action, but uncontrollable variation may destroy coherence of the explanation or action. Maintaining coherence of understandings *and* making sense of the meanings through explanations asks to look at the world through the populationist’s eye *and* the typologist’s eye at the same time – and this is the problem and the challenge. For any theory or explanation it is rather impossible to be general *and* simple or parsimonious *and* accurate at the same time, as Thorngates (1976, 406) “clock” with just two hands illustrates. Then, one of the three qualities (general, simple, accurate) must be “black-boxed”. Different theories and sciences have taken different positions in this regard.

Coping With the Multidimensionality

Coping with the multidimensionality aims exactly at what Simon (1996, x) stated: “*the goal of science is to make the wonderful and the complex understandable and simple – but not less wonderful*”. One possible way to deal with this challenge could be “grey-boxing”, using a level of conception that allows moderate generality, moderate simplicity, and moderate accuracy. Furthermore, such a box may be black-boxed or

put in full colour when appropriate. “Grey-boxing” asks for an appropriate level of abstraction and an appropriate tool-kit. The metaphors, for example, simplify complexity and make it more manageable through new insights and inferences about reality (Cornelissen & Kafouros 2008, 366). The metaphors may operate within the “cognitive comfort zone” in crystallizing existing knowledge or within the “cognitive discomfort zone” in generating novel insights (Oswick et al. 2002, 301). They open up diverse horizons for understanding, provide ways of enacting particular views on the reality and serve as novel ways of “reading” it (Morgan 2006, 417). At best, metaphors are compact multidimensional representations of the reality and, as such, handy tools for coping with multidimensionality. The metaphors compromise between generality, simplicity and accuracy without losing applicability. They offer one candidate for the “grey-boxing” tool-kit.

Any theory is itself a metaphor (Morgan 1980, 613), even though not often thought to be. The metaphoric nature of theorizing may downgrade the appreciated qualities of precision and clearness (Chalmers 1999, 67) of the statements to become challenged in a meaningful way (in the falsificationist view; Popper 1959, 72; Popper 1963, 309). The more precise and clear a theory, the easier it is to falsify (or verify) it. As the goal of theorizing is to understand the complex reality, and as the human mind tends to create understandings through often imprecise pattern recognition and revision processes (in the connectionist view; Donald 2001, 155), there is no reason to avoid “grey-boxed” patterns (metaphors) in the generation of theoretical understanding either. Understanding the metaphoric character of theorizing is especially important in a complex, partly self-organizing and emergent social world, where the quest for formality and precision may lead to an illusory feeling of scientific progress. Wanted or not, complexity is often actually managed by metaphors (Weick 1989, 529):

“Organizations are complex, dynamic, and difficult to observe, which means that whenever we think about them, the thinking will be guided by indirect evidence and visualizations of what they may be like, often captured in metaphors ... they are one of the few tools to create compact descriptions of complex phenomena. The fact that theory construction makes full use of representations is its strength, not its weakness.”

Ultimately, a theory is an operating system of the complex reality. The struggle for understanding social reality confronts its qualities of complexity (Wible 2000, 25) and fuzziness (Ragin 2000, 160); it asks for dancing on the edge of appropriate generality, simplicity and accuracy in search of an appropriate operating system. Any explanation of the social life – whether organizational, economic or behavioural – tends to be partial at least regarding one of the three dimensions and it is wise to confess this as a starting point of any holistic thinking effort. Compromises have to be made in the construction and use of any theoretical operating system of the social reality, but this does not undermine the importance of the aim towards a comprehensive view.

If being forced to choose between generality, simplicity and accuracy, what should one do? Is a general holistic picture a better tool for understanding the phenomena of the social world than an accurate partial understanding? Is a simple robust frame more useful than an accurate complex description of the reality? Is a half-way “grey” understanding more useful than an accurate picture in full colour?

What kinds of theoretical operating systems would be useful in accumulating meaningful understandings and explanations of the multidimensional reality? Could a relevant frame include a “grey” general theory, a metatheory, a big picture, behind the more colourful specific theories? Is the distinction between *comprehension* and *explanation* relevant in this occasion?

Comprehension implies sense making, using intuition and taking a broad view, whereas (Lepgold & Lamborn 2001, 4) “*explanation is a more focused activity that takes place within the context of a particular theory or set of theories. By its very nature, explanation is theoretical.*” To have an explanation, some frame of reference is needed for general comprehension (Winch 1990, x). Confessing that there are populationists and typologists among us, what kind of a general frame of understanding could join them? What kind of a framework would be general and simple enough, but also carry some “metaphorical” links to be followed in order to make it more accurate where needed? Could a metatheory as a *grand metaphor* provide general comprehension and guidance for using more specific explanatory theories? Could this be the way to make various domains of reality understandable and simple, but not less wonderful?

1.3 Objectives and Research Strategy

Objectives of the Study

Selection *versus* adaptation is a typical epistemological and methodological problem in the social sciences. The aspect of *simultaneity* (or paradox; Pye 1993, 162-165) has traditionally been a problem in the scientific approach based on reductionism, in trying to collapse all the variation into a causal relationship of one quality (e.g. economic, or social, or cognitive, or emotional). The and/or –relationships have been hard to deal with intellectually and methodologically, moreover so, if they tend to change over time. In practise, the opposite directions of a “paradox” do not often represent either/or –choices, but things that may exist simultaneously in their contexts (Pye 1993, 163-164). Reality may call for opposite locations that an *external observer* regards paradoxical, but which the *subjects themselves* regard necessary and relevant – a situation, where a typologist (talking about how to deal with paradox) does not understand variety (living with multiple dimensions). The entrepreneur being forced out of the coffee shop business, but starting manufacturing of flavoured coffee next week may be an indication of negative selection for some observer and an indication of positive adaptation to another observer – but for the entrepreneur herself it may be just a change. In business organizations, sequential attention may allow simultaneous existence of conflicting objectives that seem contradictory for outside observers (Cyert & March 1992, 40-41). Paradoxes may also emerge if things are observed from different levels. Truly multidimensional phenomena are the Pandora’s box of paradox, offering a kingdom of conflicts for paradigm-based claims.

The kind of multidimensional setting poses severe challenges for any research methodology trying to grasp it. Denzin (1989, 13) points out how “*both concepts and research methodology act as empirical sensitizers of scientific observation.*” In his view, “*if each method leads to different features of empirical reality, then no single*

method can ever completely capture all the relevant features of that reality". Indeed, the external observer being sensitized to paradox may lead her to *identify* paradoxes of the coffee business; the internal observer being sensitized to simultaneity and intimacy with the particular reality leads her to *cope with* many concerns of the coffee business without any idea of a paradox. For the purposes of tackling this kind of a matter, Denzin (1989, 13) proposes the use of multiple methods in dealing with one research problem (triangulation). That solution may be, however, just a way to get more "slices" of the reality as seen between the bars of the paradigm prison. Rather than using multiple methods as such, *multiple views* would be more important to cope with simultaneity or genuine multidimensionality. This is the starting point of this research.

The other starting point of this research is based on the challenging and fascinating *small firm world*, where person-business and business-environment relationships reveal their bare essences and are not buried by organizational complexity, ritualistic and departmental behaviours and practises (Miller 1992, 162; Torr s 2003, 2-3; Weick 1974, 487-488). Small firms are also less able to control and manipulate their environment (Preisend rfer & Voss 1990, 110). Since the issue of adaptation and selection seems to be most essential for the small firms due to their "liability of smallness" (Br derl & Sch ssler 1990, 546; Schindehutte & Morris 2001, 87), there is a good reason to start the exercise with them. A bright understanding of the behaviour of small firms is also of social and economic importance, since they carry exceptional proportions of some valuable characteristics like *entrepreneurship* and capability for *innovation* and *job generation* (Acs 1992, 41-43; Thurik & Wennekers 2004, 145-146). Their micro performance implicates socially important macro changes.

Despite their valuable social contribution, small firms are poorly understood. Statements about the small firms being different from the large firms are not rare (e.g. Penrose 1995, 19; Gibb 2000, 13; Julien 1993, 158; Verhees & Meulenbergh 2004, 135), but the conception of the difference has remained vague and a bit tautological (small firms are different from large firms since they are defined in terms of being small in size). Apart from being small in size, the specificity of the small firm is not figured out very explicitly and the knowledge remains fragmented (d'Amboise & Muldownay 1988, 226). What is the qualitative essence and specificity of the small firms? Is it a distinct "species", and for what reason? What is there behind the familiar fa ade of the small firm world? And what does entrepreneurship have to do with this?

With this vagueness in mind, some efforts towards a more general framing of the small firm world have been made regarding the change or adaptation or strategic behaviour of small firms (e.g. Carter 1990; Jones 2004; Vesalainen 1995), but it is still very much a work in progress. The benefit of a robust conceptual framework capturing the relevant dimensions of the small firm world in a holistic way is apparent, since such a framework could bind together many superficial contradictory views and concepts and establish a platform for building more specific theories and hypotheses and for conducting empirical studies for specific needs. The small firm world provides a useful context for discussing the problems related to multidimensionality: the selection-adaptation "paradox" and conditions in the "paradigm prison". The concept of adaptation evidently relates

to performance, why opening up the problematics of these two concepts may be used as a step-stone on the way towards a useful analytical structure of the multidimensional small firm world.

The *research tasks* of this study are 1) **to develop a general framework, a metatheory, for comprehending and studying small firm adaptation, performance, and entrepreneurship**, and 2) **to illustrate how it can be used with various research lenses and needs**. In short, the aim is to find some keys for escaping the “paradigm prison” when studying the small firm performance² and entrepreneurship as truly multidimensional and interdisciplinary issues.

The key words featuring the task are “general framework”, “small firm”, “adaptation”, “performance”, “entrepreneurship” and “various research lenses and needs”. These become discussed along the research process, but deserve also some initial clarification. The “*general framework*” delineates the task to be of a holistic nature: how to incorporate several approaches and how to maintain consistency and stability with the horizon when studying just some specific aspects of the phenomena. The “*small firm*” delineates the task to become directed towards dimensions that are relevant and possibly specific to small firms, where the meaning of “small” needs to become explored; preliminarily it may refer to a firm run by an entrepreneur rather than by hired management. “*Adaptation*” delineates the setting to be interactive in nature: things adapt in response to some internal or external impulses or tensions. It also has a dynamic baseline: things adapt over time. “*Performance*” implies that the adaptation (or selection) has implications for the subject in question, how may they become mediated and measured. “*Entrepreneurship*” is an ambiguous concept evidently having something very special to do with small firm adaptation and performance, why it is included in the core of the analysis. Finally, the “*various research lenses and needs*” reminds us that in order to be a general framework, the analytical structure should work with diverse sciences, research paradigms and research tasks. The study organizes some previous research into this kind of a general framework and, especially, aims to contribute to extending the previous work towards more holistic thinking by discussing, disintegrating and rearranging existing concepts rather than by creating new ones. It aims at *synthesizing* the views and discussions to create a more extensive solid ground for an understanding and analysis of the small firm world.

Positioning of the Study

Since many views must become included in the general framework, the *positioning of this study*, if wished to be positioned somewhere, is *pragmatic*. The analytical structure developed here should work in favour of studying the small firm

² Cries for this end have been made even from the most solid paradigmatic cells. Donaldson (1996, 174), while serving a row of evidence for the positivist organization theory, stated that “*there is a scope for systematic theory of the role of performance in organizational adaptation*”, confessing that (low) performance is widely recognized but not a well understood reason for organizational change and adaptation. In his view, the paradigmatic fences should still be maintained: “*And it will assuredly be a positivist theoretical development, furthering the explanatory power of positivist organization theory*”.

world without becoming messed up by a non-productive toing and froing with paradigmatic basic lyrics,³ allowing one to stay pragmatically and progressively driven by the *topic of inquiry*. Paradigmatic roads are fenced by strict and carefully constructed guidelines of validity. Here, usefulness is preferred over paradigm-based validity, and ontology, epistemology and methodology are not discussed as discrete phenomena (Keenoy et al. 2000, 544) but looked at from the perspective of the topic. Lindblom (1987, 519), who highlighted the problem of covering the very complex social world with a validated knowledge, also encourages alternative lines of inquiry, “*thinking in many forms*”. This emphasis comes close to what Danny Miller (2007, 182) calls “*valuable research*”:

“The discovery of new arguments, facts, patterns or relationships that, in a convincing way, help us to better understand the phenomenon that is of consequence to a social or scientific constituency. Such research may bear little or no connection to pre-existing or future theory, span many theories, or give rise to understandings that only eventually will form the basis of new theories.”

To be useful, the framework must be capable of serving a broad range of research needs. It should support many kinds of quantitative, qualitative and mixed research methodologies (Tashakkori & Teddlie 1998, 167), it could facilitate “subjective” and “objective” inquiries (Smith et al. 1989, 40), and it hopefully will serve typologists’ and populationists’ research needs (Mayr 1976, 28). To reach such an outcome, sticking to one paradigm or view or science would be an obvious risk. As the main aim of this study is to create such a general framework and to illustrate how it might be used to serve various research interests, a pragmatic and holistic approach is followed. Those feeling appeal to paradigms may place this study under the paradigm of pragmatism, which follows “*the dictatorship of the research question*” and “*rejects the either-or of the compatibility thesis and embraces both points of view*” (Tashakkori & Teddlie 1998, 20, 23).

This kind of a holistic approach requires several sciences to become explored and incorporated, including economics (how scarce resources become allocated), psychology (how humans behave), sociology (how humans interact), and organization science (how organizations function). The perspectives provided by these and other sciences bind together the three constituencies of the small firm world: 1) the entrepreneur⁴, 2) the firm, and 3) the environment. Therefore, *small firm performance* can be defined as the *interplay of these three elements or domains in a way which produces various outcomes, as observed from any of these domains*.

³ Turner (1990, 44) puts a label of “sociological monks” to those just repeating, copying and reciting what already has been said before in the “sacred texts” without any additional contribution and without adding any value to the existing.

⁴ This notion of the *entrepreneur* describes the primary actor in a small firm, and may contain one or more actual entrepreneurs (a family or a team), as well as feature their various roles as owners or managers. While dealing with the small firms, the intra-organizational aspects of control and conflict between the actors are not discussed here. Throughout the report, this broad basic notion of the entrepreneur is used.

Traditionally, firms have been regarded as adaptive to environmental changes (e.g. Miles & Snow 1978, 18), but logically firms adapt also to the aspirations and intentions of the entrepreneur (e.g. Bird 1988, 442; Bird 1992, 11), and entrepreneur's aspirations also adapt to the situations arising from the interactive dynamics or from the environmental realities (e.g. March 1994, 31). The reference points of the aspirations may be diverse and changing (March & Simon 1993, 68-71). The domains, their qualities and their interactions make the phenomenon *multidimensional* and *interdisciplinary* in character.

The Research Strategy

A logical and possible *research strategy* for this kind of a comprehensive task will come close to *theoretical metatriangulation strategy*: an effort to bring diverse paradigms and theories to contribute on a specific problem (Gioia & Pitre 1990; Jick 1979, 609; Lewis & Grimes 1999). For example Meyer (1982, 517) has used triangulation to gain a deeper understanding, a "thick description" of the organizational behaviour. The "thick description" often requires studying just one or few cases with limited generalizability, whereas "thin description" allowing generalization often requires unrealistic assumptions artificially homogenizing the cases (McKelvey 2004, 314). New approaches are welcomed. As Lewis and Grimes (1999, 678) point out, metatriangulation⁵ is most appropriate for studying multifaceted phenomena, which are characterised by numerous and conflicting theories. Small firm adaptation and performance are evidently such phenomena.

Gioia and Pitre (1990) provide two ways for using a metatriangulation strategy. First, working at the *transition zones* of paradigms means considering the dichotomies of the paradigms (e.g., subjective vs. objective, or stability vs. change) as continua, as dimensions with two ends. These continua may include blended "fuzzy" zones as paradigmatic bridges (Gioia & Pitre 1990, 592). Lewis and Grimes (1999, 673-674) call this effort *paradigm bridging* through spanning of the paradigms, but they also propose an alternative technique of *paradigm bracketing* to make their differences explicit.

The second way of using the strategy, proposed by Gioia and Pitre (1990, 596), employs bridging at a *metaparadigm* level through metatriangulation of the analogues or complementarities provided by the different paradigmatic conceptions, resulting in a multidimensional representation of the topic area. Accommodation of the opposing views takes place at a higher level of abstraction (Lewis & Grimes 1999, 675), making it possible to overcome the "paradigm prison" without destroying the foundations of the underlying paradigms. *Working with the transition zones implies elaboration of the boundary problems, whereas working at metaparadigm level implies elaboration of more abstract dimensions underlying several paradigms.*

⁵ Denzin (1989, 237) defines four types of *triangulation*: 1) data triangulation, 2) investigator triangulation, 3) theory triangulation, and 4) methodological triangulation. In all cases, the aim is to alleviate biases related to the use of a single data, observer/analyzer, definition space, or method.

The accumulation and progression of the scientific understanding in the social sciences often takes place through a kind of a *diffusion strategy*, when theories are abstracted from reality and then subsequently tested in various contexts to cover new sub-territories of reality. “The men in business” instruct the newcomers of the “facts of the world” they should be microscoping with some paradigmatic mind-set in the Kuhnian sense. Thickening is one mode of this strategy (filling in the holes in the existing network of understanding), stacking is another variant (accumulating additional understanding of a specific point of the reality). This study, however, follows another line: a kind of an *abstraction strategy*. Then, reality and the theories describing and explaining it are viewed from a higher level – which is often called a metalevel – to introduce new ways of understanding reality more comprehensively, without losing what already exists on the map. These alternative strategies which allow for progression in the social sciences are illustrated in Figure 2.

Evidently, the abstraction strategy does not necessarily aim at building a grand theory, but for a more comprehensive understanding of the research topic by viewing several representations simultaneously. Forced combination of views may not even be beneficial (Scherer 1998, 155): “*When each perspective has deficiencies, a combination of all of them may be even worse*”. Rather than this, a route somewhere in between the “theoretical tyranny” of paradigms and an “anything-goes attitude” of a fully free and groundless inquiry (Pfeffer 1993, 616) is sought. Comprehension through a kind of a “disciplined imagination” exercise (Marshall 1920, 44; Weick 1989, 520; Weick 2002, 7) or “appreciative theorizing” exercise (Nelson & Winter 1982, 46) to construct a metatheory by a speculative abstraction strategy is the ultimate goal of this exercise.⁶ Essentially, it may help students to discover some grey areas of understanding, or to uncover some separate concepts to carry a similar message but from a different perspective.

The Research Methodology

In this study, a metatheory of small firm performance and entrepreneurship is developed through modified metatriangulation strategy. Multiparadigm reviews of the relevant literature are used to identify and elaborate some topic-relevant metaconjectures and analytical structures to become building blocks of the metatheory.

Metaconjectures are propositions that can be interpreted from multiple paradigms (Lewis & Grimes 1999, 683). *Metaconjectures reconstruct bridges of simultaneity*. For example, the concept of adaption may be elaborated to a metaconjecture, which is interpretable by strategic management thinking and by population ecology thinking (Figure 3). Metaconjecture aims to reveal the underlying dimension by looking at the phenomena from a bit higher level

⁶ Cornelissen (2006, 1582) has made an apt description of the effort: “*Here, researchers are seen to engage in a number of mental experiments or thought trials where they iterate between reviewed literature, preliminary analyses, background assumptions and their own intuition to consider a rich cascade of metaphorical images as representations of the subject or problem in hand (‘imagination’) before selecting and deciding upon one metaphorical image that serves as a starting point for further inquiry into it (‘discipline’).*”

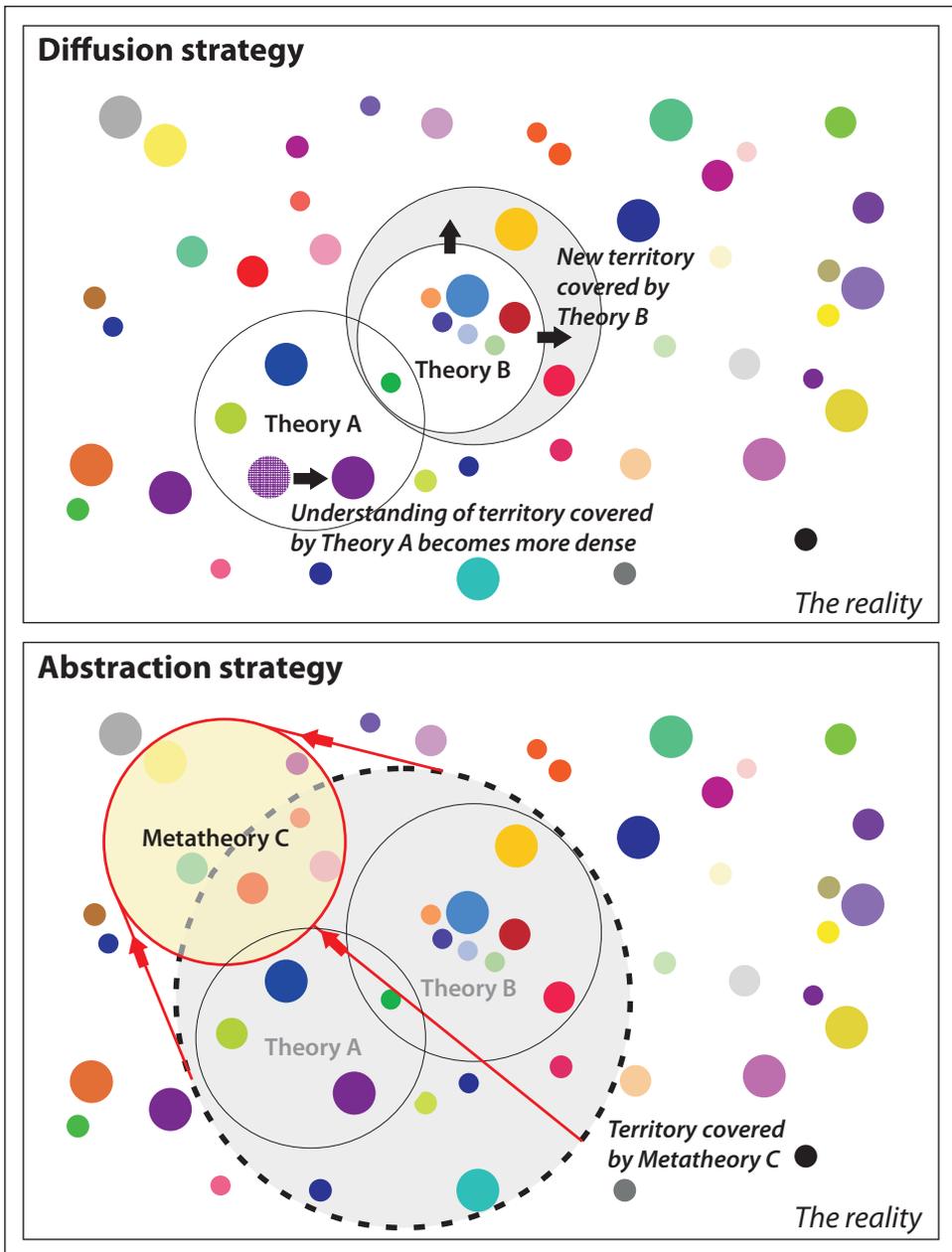


FIGURE 2 Two Alternative Strategies to Allow for Progression in the Social Sciences

of abstraction rather than from the “paradigm prison”. Metaconjecture is the “wormhole”⁷ between two intellectual universes, connecting them and making it possible (in theory) to travel between them, to “see another universe” (Nadis 2009, 24).

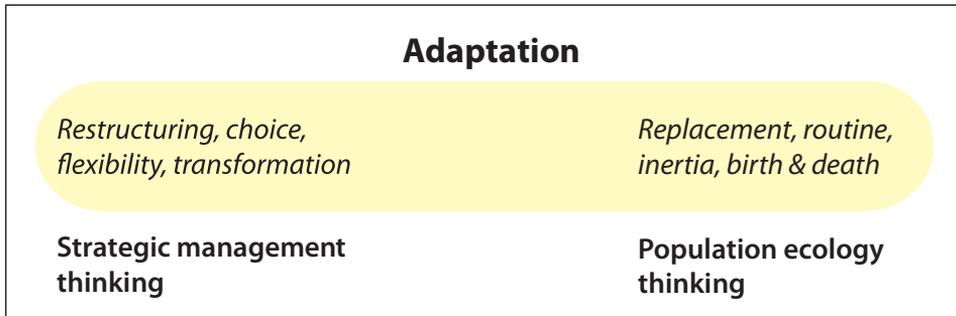


FIGURE 3 Adaptation as a Metaconjecture: An Example

Metaconjectures may be developed in several ways. Lewis and Grimes (1999, 683) propose conjecture inversion and conversation techniques. *Conjecture inversion*, in their view, can be realized by reframing a broad question with multiple paradigms and looking for what could and, especially, what could not be explained by the various paradigm accounts. *Conversation techniques*, in their view, can be utilized by probing paradigm debates and by discovering creative means to justify their emergent contradictions. Evidently, both techniques are employable, since they are based on reviewing a topic from genuinely divergent perspectives and on revealing their additive (rather than exclusive) value in understanding and explaining the reality. *The methodological working hypothesis of this research effort is that there are a few basic metaconjectures underlying small firm behaviours, providing bridges for the seemingly separate theories and explanations of adaptation and performance and in such a way connecting “two sides of a same coin”, or many sides of a same thing. Besides the metaconjectures, it is necessary to identify the domains or elements to be bridged by them.*

Breaking down the phenomena of adaptation and performance into relevant metaconjectures and domains/elements makes it possible to discuss the issue in a consistent way with multiple perspectives. In this way, the provincialism and partiality of a single prominent paradigm or a single narrowly focused theory around the issue may be avoided. A small but important distinction is worth noting: a multiparadigm approach denotes disparate paradigmatic perspectives, whereas metaparadigm denotes transcending paradigm distinctions to reveal their disparity and complementarity (Lewis & Grimes 1999, 673). *This study employs*

⁷ Wormholes have (at least) two “mouths” and a connecting “tube” or “throat” (Krasnikov 2000, 1). Traversable wormholes may serve as spacetime shortcuts, “tunnels” making it perhaps possible to travel through them to reach distant parts of the same universe, other universe or different time (Krasnikov 2003, 1; Visser 1989, 3182). As such, they may “bridge” these kinds of distant “sheets” (Einstein & Rosen 1935, 77).

multiparadigm reviews, elaborations of metaconjectures and fundamental elements, to produce a metaparadigm theory, in which these can be combined into a coherent analytical structure. This methodology of uncovering the genuine metaconjectures and domains of the small firm adaptation and performance is illustrated in Figure 4. The metaconjectures are like iron hoops connecting the wooden staves of barrels, in which the reality of the topic is stored. They may comprise a “*weak theory*” (Chia 1996, 50) of the studied phenomena.

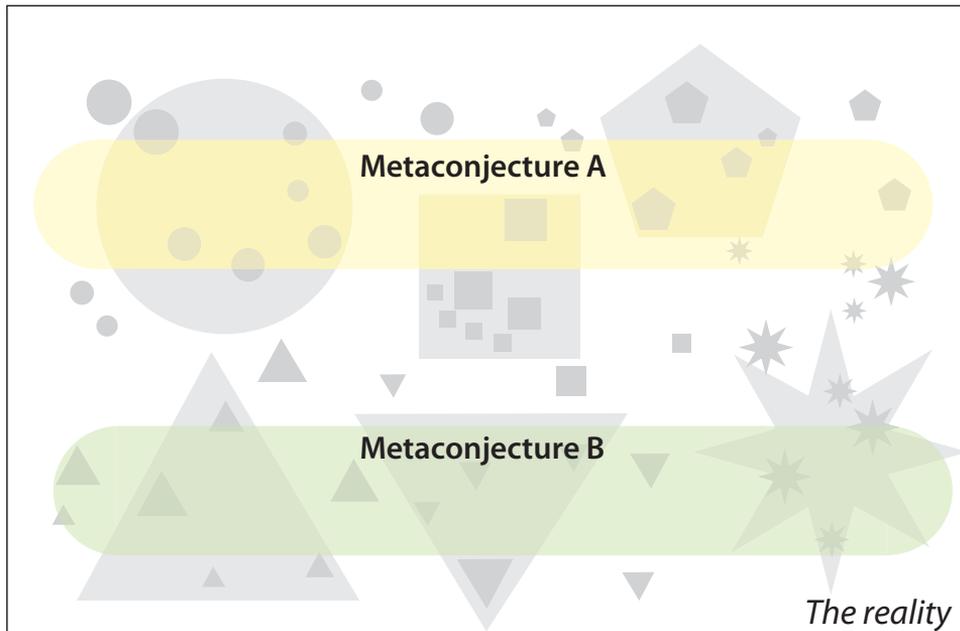


FIGURE 4 Research Strategy to Capture Multidimensionality at the Metalevel

A critical issue in this approach, as noticed at this stage already, is finding and keeping with an appropriate level of abstraction without being either flat (“black-boxed”) or confused by detail (“full colour”). This appropriate “flying altitude” is looked after by “flying” in between the broad paradigms and the local explanations and observations – by “grey-boxing” – while continuously proceeding in the direction of the metatheory as indicated by the topic of inquiry (Figure 5). Any long listing of the concept jungle within the numerous paradigms, sciences and theories is avoided, since these pages would fall short of that kind of a formal and accurate review. Instead, the aspects deemed relevant for the topic on each point of the “flight” are *discussed on a selective and critical basis*.

Various paradigms, sciences, views, theories, concepts and observations are scanned to find useful ingredients for the metaconjectures and elements of the metatheory. *How do paradigms, sciences etc. look when looked at from the “heart of the topic”, rather than the other way around?* The topic of the inquiry is allowed to overrun the paradigms, sciences, theories and concepts, while transcending them into appropriate analytical structures. Some limited formal descriptions of the underlying basic texts are rather pushed on the footnotes. Instead of listing

them, their *boundaries* are touched upon with a grasp of “disciplined imagination” or “appreciative theorizing”. This methodological choice hopefully preserves progressive logic in the discussion and leads to a handful of conceptions that finally help to complete the holistic but well structured framework. The work prescription has been: synthesize, synthesize, synthesize.

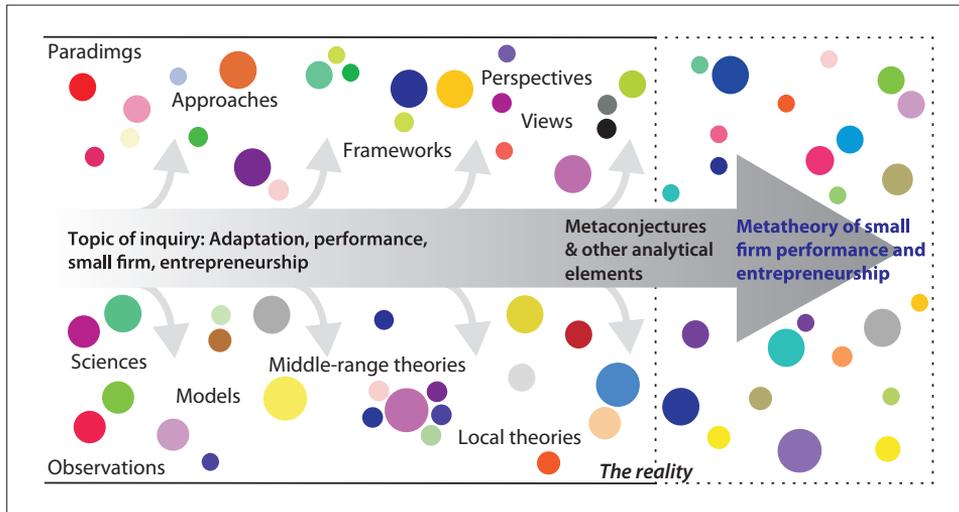


FIGURE 5 Ideas of the “Flight” Altitude and Direction, and “Grey-Boxing”, in the Research Methodology

1.4 Outline of the Study

The *research report* is structured into four parts. The steps of the research conduct roughly follow the structure proposed by Denzin (1989, 241) and Lewis and Grimes (1999, 677), where the first step is *framing the research topic with a multiparadigm understanding*. The first part of the report aims at providing the theoretical ingredients for understanding the phenomena. Following the introduction in Chapter 1, Chapter 2 focuses on the research process by firstly carrying out a multiparadigm review of the elementary concepts relevant to the research journey, the adaptation and performance constructs. The categoric nature of these concepts is challenged to see if they can be used as representations of continua, providing an opportunity to utilize divergent paradigmatic views and to develop metaconjectures. This first step toward the metatheory serves to create a useful analytical structure capable of observing relational phenomena in the small firm world.

The second multiparadigm review concerns the small firm world, which forms the basis of Chapter 3. This discussion looks after the ingredients of the small firm specificity as an enduring “species” among the business vehicles and refines further the analytical structure on the way toward the metatheory. An essential part of the discussion is comprised by studying the boundaries of conventional explanations for capturing the dynamics of the small firm world. As a result,

the concept of the entrepreneurial project is distilled and conjectured to be the most useful analytical apparatus for capturing the most distinctive features of the world. The small firms provide widely used and convenient platforms for such transformative projects.

In the second part of the report, *a metatheory of small firm performance and entrepreneurship* is developed. The process starts in Chapter 4 by elaborating on the concept of metatheory at a general level. After this, the actual metatheory is presented, widely basing on the elaboration of the elements and metaconjectures in the earlier chapters of the study. Chapter 5 illustrates how the metatheory might be used with various research lenses, highlighting opportunities to focus the inquiry to meet some more specific research needs. Since a metatheory may not become verified or falsified, it is important to illustrate the beneficial role it may have in guiding and consolidating the research act.

The third part of the report provides three *empirical examples of the use of the metatheory*. The mini-case in Chapter 6 illustrates how the metatheory could be used to back up a contextual study using the changeability lens. The mini-case in Chapter 7 illustrates the use of the subjectibility lens, whereas the mini-case in Chapter 8 employs the temporality lens. All these three mini-cases use data from Finnish farms, which are small family firms. The main effort of this study has been in the crafting of the metatheory, why the mini-cases serve just to illustrate its application rather than aim for production of ground-braking empirical findings.

The last part of the report is reserved for *reflection*. Chapter 9 includes the conclusions, the critical evaluation of the relevance, validity and reliability of the metatheory and the results obtained, and discusses its implications for the future research. This is an important step in the research process, since any metaparadigm research is not that clear-cut. Critical self-reflection is necessary, since "*metariangulation-in-action*" is "*messy*", "*far from schematic*" and "*highly iterative*" (Lewis & Grimes 1999, 676). The research process as a whole is illustrated by the flowchart in Figure 6.

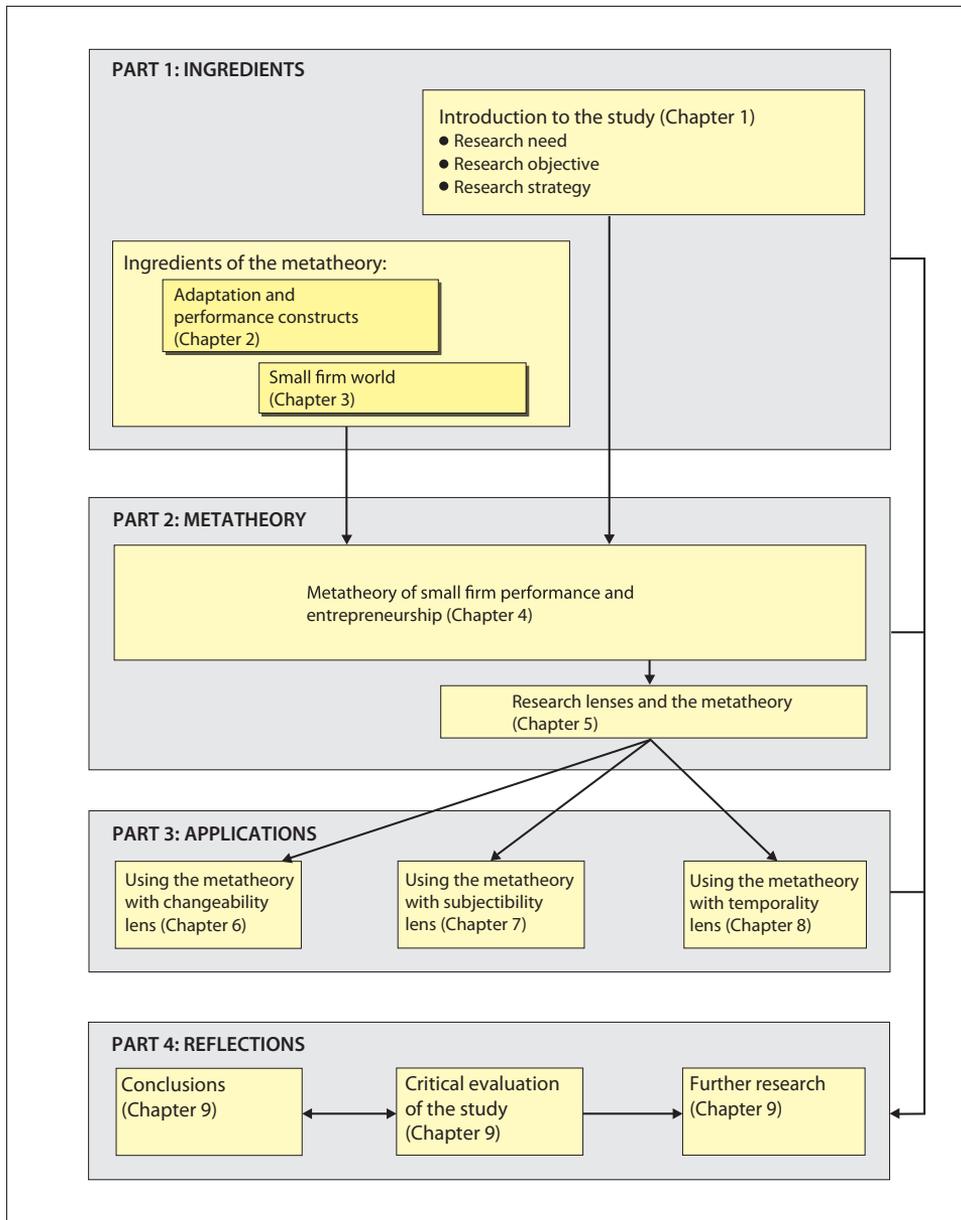


FIGURE 6 Research Process and Structure of the Report

2 ADAPTATION AND PERFORMANCE CONSTRUCTS

Adaptation and performance are important concepts of the social sciences life. These concepts are also sources of bias, confusion and “paradox” when viewed from a single, narrow perspective. For this reason, they are elaborated on in order to come up with a useful analytical structure for the purpose of the metatheory. Discussion regarding the difficulties in defining and formulating the adaptation and performance concepts provides a good stepping stone towards an appropriate analytical structure to tackle the heterogeneity of the small firm world.

It is a commonplace to think of firm *performance* in terms of efficiency, objectively comparable business results or survival of the firm. High profit (economics) or long endurance (organizational ecology) is thought to be a *universal* manifestation of high performance, the opposite of poor performance. A wide array of specific means – resources, capabilities, strategies, structures, processes – is thought to contribute to performance in a robust and logical manner, which one may specify and confidently apply throughout the universe. This makes sense, but only in a partial manner.

In some instances, a firm may deliberately concentrate on a specific social business with an understanding of the low profit potential or on a specific risky business with an understanding of the high failure hazard. The results may be diverse. Due to sickness or change in life orientation, the entrepreneur may come up with an intention to make “satisfactory” profits while thinking what should be done for the rest of her life and with the firm once set up. The entrepreneur has the discretion to cease her very profitable firm.⁸ The means and the ends may be diverse. A marriage or accidental meeting of a new business partner may push

⁸ This fact is one example of the problems of the “objective”, positivist thinking confronting the challenge of multidimensionality. If the goals behind the existence of the firms are “black-boxed” or reduced into one universal behavioural rule of profit maximization (for which there is evidently always room for), the premise often emerges that firms exist for eternity. “Survival” of the firms over time may then be used as a logical indicator of the performance. Firms that do not survive long are indications of a poor performance (Barnett & Carroll 1995, 231). In reality, sometimes entrepreneurs *intentionally* dissolve and sell very profitable firms for *variety* of reasons. The economic explanation is not the only explanation for the economic phenomena.

a small business to embark down a radically new road on an emotional or non-planned basis, having unforeseeable and undisclosed performance effects. The means may be evident, but the ends are to become clear after the honeymoon. In all these cases, performance becomes *related* to something idiosyncratic and *non-universal*.

In any case, performance is evidently something dynamic, associated with *change*. A question arises, what should one think about change and performance of the firms above the well-known normative, unidimensional utility/profit maximization statement of the contemporary economics,⁹ while acknowledging multidimensionality. For that end, a citation from Thomas Schelling is used as a discussion opener for this multiparadigm review or “disciplined imagination exercise” of *change, adaptation and performance*. It comes from his original book “*Micromotives and Macrobehavior*”, which tells the name of the game (Schelling 2006, 21-22):

“It is generally not believed that any ant in an ant colony knows how the ant colony works. Each ant has certain things that it does, in coordinated association with other ants, but there is nobody minding the whole store. No ant designed the system ... The colony is full of patterns and regularities and balanced proportions among different activities, with maintenance and repair and exploration and even mobilization for emergencies. But no individual ant knows whether there are too few or too many ants exploring for food or rebuilding after a thunderstorm or helping to carry in the carcass of a beetle. Each ant lives in its own little world, responding to the other ants in its immediate environment and responding to signals of which it does not know the origin. Why the system works as it does, and as effectively as it does, is a dynamic problem of social and genetic evolution. How it works – how it is that the limited set of choices made by each ant within its own truncated little world translates, in the aggregate, into the rich and seemingly meaningful pattern of aggregate behaviour by which we describe the society and the economy of the ant – is a question akin to the question of how it is that all the cows know how much milk is needed to make the butter and the cheese and the ice cream ...

What I asked you to be amazed at, and not necessarily to admire, is simply the enormous complexity of the entire collective system of behavior, a system that the individuals who comprise the system needn't know anything about or even be aware of it. If we see the pattern and order and regularity, we should withhold judgment about whether it is the pattern and order of a jungle, a slave system, or a community infested by parasitic diseases, and inquire first of all what it is that the individuals who comprise the system seem to be doing and how it is that their actions, in the large, produce patterns we see. Then we can try to evaluate whether, at least according to what the individuals are trying to do, the resulting pattern is in some way responsive to their intentions.”

⁹ If kept with the premises of the neo-classical economics, a solution for what firms should do with given preconditions to maximize their profits may be derived (e.g. Jehle & Reny 2001, 136; Varian 2006, 340), but not a description of what they all actually do and for what reasons. Simon (1959, 254) makes the point as follows: “Economists have been relatively uninterested in descriptive microeconomics - understanding the behavior of individual economic agents ... The normative microeconomist ‘obviously’ doesn’t need a theory of human behavior: he wants to know how people ought to behave, not how they do behave.” Earl (1990, 722) makes a similar note.

2.1 Adaptation

Change, Agency, and Adaptation

As Schelling points out, superior performances, brilliant structures and enduring surveillance can be brought about in a very local *interaction* without a global, universal and coordinating intelligence, without an “invisible hand” or “central auctioneer” coordinating the actions. Beyond such, Schelling encourages us to take a look at the intentions, actions and interactions. Within some specific area under observation, order and “pattern” of action may emerge from a strictly “rational” and homogeneous behaviour, or from a seemingly “non-rational” heterogeneous action. In the social world things evidently change in diverse arenas of *interdependency* through self-reflection and heterogeneous social interaction, of which the rule-based conception of the economic behaviour is a specific sub-case, “a large and important special case” (Schelling 2006, 27). But what is the role of the rule-based or heterogeneous behaviour in creating various kinds of patterns?

Basically, talking about adaptation is talking about *change*. Change refers to something that becomes different over time: “things” change. Logically, *adaptive change* illustrates a change driven by some specific motor - there is a reason for changing. This reason, asking for or enforcing a response, might originate inside the subject (e.g. a desire to get the “ant’s” task done) or outside it (e.g. a desire of the neighbouring “ant”). Adaptation is adaptation towards something, pushed by something and/or pulled by something. Change requires energy. In adaptation there is an identifiable catalyst that energizes or fuels the motor of change. This motor causes the subject to change over time, over the period of observation. *Adaptation is a change driven by something and towards something.*¹⁰ Change and adaptation take place in time. Conceptually, the borderline between adaptation and change seems fluid, however. Amburgey et al. (1993, 51) discuss “adaptive change” in organizations, for example.

In fact, even the most spontaneous of changes is a response to something, if not more than to someone’s desire to play with ideas or to make a difference. Every change - positive or negative - has a reason, because change requires energy. Lack of energy (for human or material reasons) may be a cause of no-change. No-change may reflect adaptive behaviour just as some specific change, when energy is not directed towards generating change. Therefore, the difference between “change” and “adaptation” is an epistemological observation of the cause, not its ontological existence. Adaptation may specify causality of the change and set the scene for a *relational view* of the change. *Change may be observed without considering*

¹⁰ Etymologically, adaptation may be traced back to the latin words “*apt-us*” (fitted, suited, appropriate) and “*ap-ere*” (to fasten, to attach). Indeed, the history of the concept has witnessed discussions ranging from the causes of being more or less “fit”, to the processes driving changes in the state of “fitness”, generally with some “environment”, natural or artificial (Amundson 1996, 41, 49; Holland 1992, 1-2; Williams 1966, 251-252). Adaptation - whether used in biology, psychology or organization studies - refers to a competitive setting, where relative scarcity (competitive selection) or some other feedback coordinates the process, since “*random processes contain no mechanism for choosing one design over another*” (Cosmides et al. 1992, 9).

agency, but adaptation asks for identification of the causal contingencies related to the specific behaviour: where does the energy come from, why from there, how, and what is the impact.

For this reason, talking about adaptation is talking about *agency*.¹¹ Adaptive behaviour is fixed to an agency. Without agency there is no adaptation. Only the qualities of the agency may give an adequate explanation of a behaviour that can be labelled as “adaptive”. “Agency refers to doing” (Giddens 1984, 10); agency implies capability to do things (*ibid.*, 9). Agency may energize adaptation with an ability to effect change (Barnes 2000, 25). *Here agency is considered as a capability of the actor to accumulate, preserve and use “energy” in order to realize some action by oneself or by the others, as an ability to initiate change with a potential for changing “things”, structures.* An agency may exhibit a wide range of subjects, objects and qualities. By default, the adaptation is a *relational* phenomenon between the agency (possession and qualities of the “energy”) and the outcomes of the occasion (exercise of the “energy”).¹² Discussing agency is discussing interaction, control and order. Adaptation captures the holistic process and outcome of this.

Evidently, there are three resource bases that are related to the small firm adaptation process: the entrepreneur, the firm and the environment. The purpose

¹¹ In this study, agency is prescribed in a general form, keeping proximity with the original latin word *agere*, which means “to put in motion”, even though the word has at least 44 different meanings (Phillips 1987). There is also a specific *agency theory* dealing with the controversial relationship of “a principal” and “an agent” carrying out tasks delivered by the principal. The theory mostly discusses the efficient organization and the costs of control in situations where the power (ownership of the resources) and the implementation (use of the resources) are in separate hands; where a potentially opportunistic agent (e.g. manager) is engaged to perform some tasks on behalf of the principal (e.g. outside investor; Fama & Jensen 1986, 279; Jensen & Meckling 1986, 217).

¹² The distinction between “agency” and “structure” is widely held and controversial. Making a clear distinction helps to identify causal relationships. Many social actors are, however, deeply embedded in numerous interaction processes and environments. At an extreme level, the *ANT-theory* (Action Network Theory) claims that all actors gain their significance and meaning only in relation to others when making their existence (Law 1994, 100): “Agents may be treated as relational effects”. Their role is related to engaging in the reassembling of the social collective (Latour 2005, 247). This fully relational view has a boundary, however, since the actants are still driven to network by some force (e. g. the expectation of getting a meaning by the network), and as soon as the network becomes established, it might provide external ordering agency for the actants as well (Law 1994, 34) – the conception of “no agency” here very much depends on what aspects become observed. A hidden hand of purpose is weak also in some ideas of *complexity thinking*, where self-organization arising from the local interaction between agents rules the change, which is observable at the aggregate level as an ant colony, organization or a capitalist economy (Anderson 1999, 222; Lewin 1999, 13). Increased complexity leads to a situation where “selection is progressively less able to alter the properties of the system” and the spontaneous “order will shine through” (Kauffman 1993, 29). Even leadership may be dispersed (Gronn 2002, 444-445). But even in these cases, a change has a cause, however dispersed, unobserved and unconventional it may be. Even the simple agents of complex adaptive systems have a “schemata”, a set of behavioural rules (Anderson 1999, 219; Holland 1995, 64), a cause for local interaction generating patterns and order. In fact, the ideas conflating agency often base on (simple) rule-based behaviour. Obviously, change without agency cannot be managed, only observed. The tendency to push part of the causes to categories of “unplanned” or “unintentional” change reflects the non-controllability or non-perceptibility or non-comprehensibility rather than the actual non-existence of the causes.

of this first review is to discuss *adaptation as interaction covering these three domains in order to uncover appropriate metaconjectures and analytical structures related to the phenomenon of adaptation*. Adaptation implies behaviour in the sense that it may occur or not as a specific action within and between the domains; it is a change process that is “on” or “off” for a reason; it is a process that needs inputs to produce outputs; it is a process that can be energized by many kinds of fuels; it is a process whose outcomes can be observed by the three domains or points of observation; and it is a process that takes place in the ether of time. As adaptation captures the ingredients and outcomes of the interactive behaviours and actions between the three domains, it is a relational or “dialogical” (Emirbayer & Mische 1998, 974) process (Figure 7).

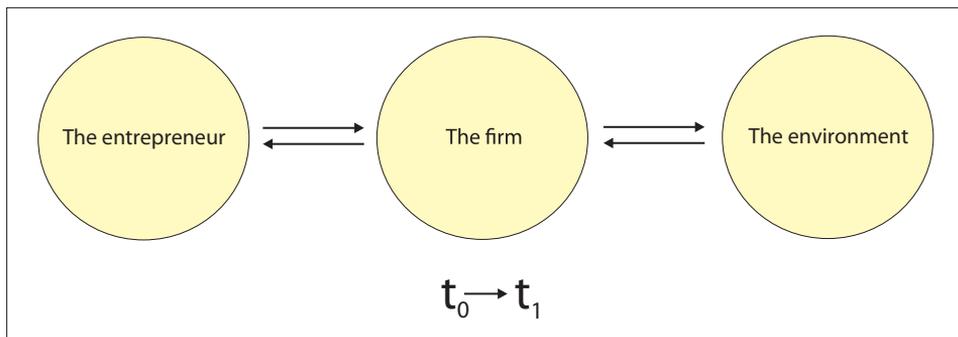


FIGURE 7 Constituencies of Small Firm Adaptation

Thinking about Agency

The agency residing in the entrepreneur is energized by her *aspirations*, desires and concerns which may relate to the “rational”¹³ substantive goals of firm performance and wealth generation, but also to the “non-rational” passions

¹³ The dimension of *rationality* of action is controversial at a deeper level. It is most often used to describe a means-ends -driven behaviour (e.g. Parsons 1968, 698-699). A “rational” actor chooses appropriate means to meet the ends by a *rational choice*. To do this, she must possess a full knowledge of all alternatives - their existence, availability, applicability, temporality, costs and benefits - and the ability to evaluate, implement and control their exploitation in a deterministic way (Gigerenzer 2008, 4). In reality, people find themselves somewhere on the continuum of full vs. non-existent information (and control) over the issue at hand. Even if people were able to quantitatively integrate the numerous dimensions of a choice, at a certain point they tend to stop calculating and reflecting and looking for the “optimal” solution, and just make up their own mind on a “satisfactory” basis (Wilson 1998, 224). They “satisfice” rather than optimize (Simon 1996, 28-29). Besides the means, the ends also face a frontier problem with rationality as whether the “rational ends” are indeed fully known and whether the actors themselves are willing, able and authorized to choose the “rational” ends. A behaviour driven by an obligation, norm and rule-following may be considered rational if these ends are indeed considered “rational” ends for those concerned. “Happy slaves” who are fully embedded in a slavery system, for example, raise doubts about the lacking dimension of morality in the common notion of rationality (Hollis 1987, 92). Neo-classical economics, driven by formalization and precision, is an example which exhibits more or less all the frontier problems of rationality. Functionalism, in general, evades rather than focuses on the meanings of rational action (Wilson 1970, viii).

(Granovetter 1985, 506). The agency residing in the environment is energized by the diverse needs of the other actors: customers, suppliers, business partners, competitors, bankers, tax officials, and others. In this view of interaction, *the role of the small firm becomes instrumental for two directions: it is a meeting point for the two agencies, a nexus of entrepreneurs' and environments' influence.*

What kind of an agency the small firm is, is an interesting question. Archer (2000, 11) discusses the “*corporate agency*” containing collective resources and mechanisms for carrying out the transformative role of the firm, possessing also some causal powers of its own. During its existence, the firm may enact and maintain institutional roles (“*manager*”, “*employer*” etc.) affecting agencies inside and outside the firm. At a more grounded level, as soon as the firm is set up, it contains some resources within its boundaries and encompasses specific ways to transform energy into action and resources into services. Even the most decent one-man firm serving as a billing address will make the firm agency different from the person. But as the role of the firm is instrumental, the setting becomes hierarchical and in this study the small firm is conceived rather as a nexus of interaction, subjected to external agencies. If desired, its role may be expanded and elaborated in separate and subsequent studies.

The question of agency is also at the core of adaptation in the small firm setting. The concept of agency describes the exercise of influence: utilization of one's energy to intervene and effectuate some purpose, facilitating a change in “*structures*”. Just as adaptation is always adaptation towards something, agency is always *agency towards something* (Emerbayer & Mische 1998, 973). When “*the something*” is viewed as a composition of other objects, events and meanings, an agency could be described as someone having several “*dialogues*” going on at the same time. Adaptation captures the processes of change under various relational influences, which can be looked at from various levels and points of view. But what constitutes an appropriate analytical structure to capture the agency? What can be said about the central human agency energizing and facilitating many of activities of the small firm?

The Human Agency

The roots of agency as a concept lie in the vague notion of *human agency*, which is a good starting point to elaborate on. Reviewing the literature, it is evident that this conception has revolved between the extremes of morally, cognitively or materially “*constrained agents*” under external determinism, and “*free agents*” making deliberate choices under internal motivation and “*free will*” (Coleman 1986, 1310; Homans 1964, 817; Joas 1996, 148; Lukes 1973, 146; Parsons 1968, 11; Pozzebon 2004, 248). The continuum in Figure 8 is reconstructed from these broad ideas. An agency may be taken by a constrained actor obeying the norms and routines conforming to some specific choice, or by a creative actor employing the resources and capabilities to choose something particular, or by an actor somewhere between these extremes. Various paradigms have dealt with the issue of the human agency by occupying a varying point or “*slice*” of this dimensional space between determinism and voluntarism (Figure 8). They struggle to find an appropriate conception of the agency and the structure, the flow and the stock,

the reason and the outcome, the internal and the external.¹⁴

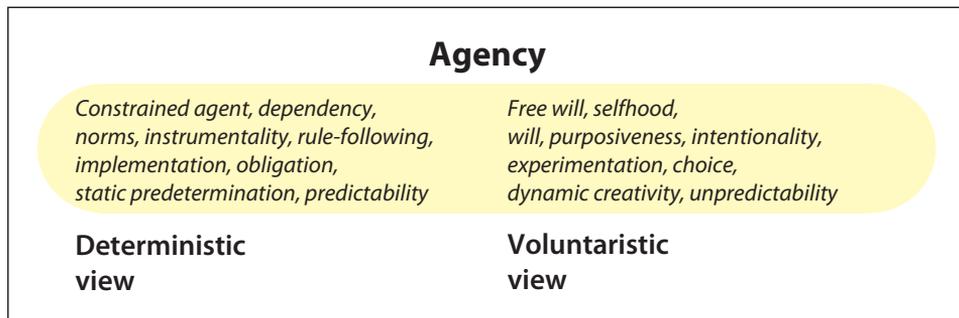


FIGURE 8 Traditional Dimensions of the Human Agency

The reductionist paradigm views any structure as a mechanistic aggregation of its individual constituents and leaves their complex interactions more or less untouched (Reed 2003, 292). In contemporary economics, for example, the human agency is reduced to an atomistic “choosing-machine” maximizing ones utility *independently* of the others and without any subjective deliberation regarding the behavioural rules (Barnes 2000, 17, 30; Hindess 1988, 4, 29; Hollis 1987, 26). Not far from this, *the deterministic paradigm* views the external world as providing the structural contingencies defining the functions and behaviours of an actor, without latitude for deliberation (e.g. Donaldson 1996, 20). The rational choice theory is a good example falling under the deterministic paradigm (Barnes 2000, 19). In both these well-defined worldviews strongly striving for universal explanations, the external “structure” (environment, structural contingency, behavioural rule) is the principal and the human agency is the subordinate. The human agency is subjected to the structural causality and energized by the rule-based or situationally optimal (deterministic) behaviour with little or no genuine deliberation (Reed 2003, 296). In these paradigms, often based on positivism, the human agency makes no difference: it is instrumental and energized by the external forces or givens. Qualities of “being” are emphasized over the insights of “becoming”, the causes of which are exogenous to the agency. Strictly (uni-)causal explanations are epistemologically and methodologically favoured.

The conflationist paradigm, on the other extreme, considers the outcomes of any actions of the agency as fully internal and inseparable from it, rather than dualist (Reed 2003, 297). The outcomes arise from the activities, interactions and interpretations of the human agency, which is embedded in and subjected to the same outcomes (e.g. Gergen 1985, 267). Due to this co-determination, there is no well structured relationship between the external world and the human agency, which are collapsed into local and dispersed processes of discourses (Foucault 1970, 351) or practices (Bourdieu 1990, 86; Wenger 1998, 72), for example. “*Reality*

¹⁴ Materialist-idealist continuum is sometimes compared with the deterministic-voluntaristic continuum as if it was the same things. However, as Leonardi and Barley (2008, 160) point out, both material and non-material things may constrain or afford the action.

is in perpetual flux and transformation and hence unrepresentable through any *static conceptual framework or paradigm of thought*" (Chia 1996, 46). Agency (e.g. a specific power) itself becomes something different within and along its context (Clegg et al. 2005, 159; Pettigrew 1987, 658). This type of world features an ill-defined, fuzzy and continuous restructuring of the constituent elements of it (e.g. Bourdieu 1990, 86-87), including the agency, which could be energized by internal forces (within this frame). The explanations and inquiries tend to be local rather than universal (Whitley 1992, 121). Historical time is included, however, unlike in many rational-empiricist accounts based on individualism and ahistorical accounts. Endogenous processes of constructivist "becoming" are emphasized over the states of "being". Pattern explanations¹⁵ are epistemologically and methodologically favoured.

Somewhere in between, *the realist (or relational) paradigm* posits that there is subject matter inside and outside the human agency, and it is their relational interplay that matters (Bhaskar 1998, 80; Manicas 2006, 60-61; Reed 1997, 32; Tsoukas 2000, 534; Willmott 2000, 73). It is the *"alternating phases of agential creativeness and structural determination"* (Sztompka 1993, 200) that bring about the outcomes. The human agency faces a specific set of conditions (material, institutional etc.) and a specific set of constraints and opportunities comprising the *"structural inheritance"* (Archer 2000, 307-308). The differential *causal powers* residing in the structure and in the agency enable and constrain action and lead to reproduction of or transformation of the *"structural inheritance"* (Archer 2000, 307-308; Sayer 2000, 27). Structures provide powers (e.g. languages, competences and material facilities) that agents may mobilize intentionally in their activities, but placing some limits on this ability (Bhaskar 1978, 11; Bhaskar 1986, 126). *"Some structures ... are more important than others in shaping particular outcomes"* (Sayer 2000, 74). It is the *sequential interplay* of the agency and the conditions (structure, context) in specific times and places that will produce the outcomes (Parker 2000, 115). The agency is placed in an existing, real world with many levels, where

¹⁵ When unable to make rational, "causal explanations" or rely on the rational expectations in a strict sense, one may observe and lean on "pattern explanations" which leave part of the complexity (uncertainty) out. Ormerod (1998, 196) explains the important difference: *"Imagine an old-fashioned horror story, in which our gentleman hero is summoned into the rural wilderness to investigate a gruesome series of murders. The perpetrator, in true melodramatic tradition, only strikes on the night when the moon is full. Our sleuth sits and ponders when the next assault will take place. In a flash of inspiration, he connects the times of the crimes with the date of the full moon, and so is able to predict correctly the next outrage. We might entitle our story The Intrepid Econometrician, for our protagonist has built a successful multi-variate model. The movements in one variable – the dates of the murders – have been connected with those of another – the dates of full moon.*

But our man could have been of altogether more pedant frame of mind. He may simply have noted that there was a regular interval between one murder and the next, and extrapolated from that. It would spoil the drama, but this uni-variate model, which accounts for the times of the murders purely on the basis of their own past history, would be just as effective at predicting the time of the next murder as the more sinister multi-variate model connecting them to the full moon.

By definition, in this novelette the times of the murders are determined by the dates of the full moon. But it is precisely the regularity of the movements of this variable which give structure to the patterns observed in the dates of the murders." The former is a "causal explanation", while the latter is a "pattern explanation".

many kinds of causal powers and mechanisms exists irrespective of if they are actually exercised or not. The agency could become energized by internal and/or external forces.

It is hardly surprising that a student gets confused with what adapts to what, and what selects what, if basing her inquiry on these kinds of prescriptions! All in all, these deeply grounded paradigmatic views take stock of the relationship of the agency and the structure or context. *Except for the realist paradigm*, they can be criticized for either ignoring the “internal”, truly generative and restructuring ability of the human agency, or for ignoring the “external” facts facing the human agency in any situation as *de facto* affording (opportunity) or resisting (constraint) the action. The extreme views appear incommensurable.

Outside the paradigm prison of complete separation or complete integration of the agency and structure, one may conceive this aspect of reality as a continuum. The agency–structure discussion features essentially the determinism–voluntarism continuum between the two levels: the agency, and the structure or context. In one occasion, the “structural inheritance” may afford a voluntaristic choice (changing or reproducing the structure for the future), whereas in another occasion it may constrain action in a deterministic way.¹⁶ *After taking a step further, the landscape ahead looks different, and so does the past.* Some causal powers may be more universal than others and some qualities of “structural inheritance” may be more inclined to afford or constrain the agency than others. This should prevent the analytical structure from over-abstracting into absolute universalism, or collapsing into absolute relativism and situatedness. Caldwell (2005, 109) follows this line of thought while making a firm conclusion of the confusion surrounding agency and structure (or context):

“There has always been only one practical guiding principle for the exploration of agency and structure: agency without structure is blind, structure without agency is empty.”

¹⁶ This comes close to the idea of Giddens’s *structuration theory* (1984, 14), where “structure” may both constrain and facilitate action, but not explicitly determine it, because individuals have agency and are able to “make a difference”, even though in most occasions they act routinely and reproduce structures rather than transform them. Agency and structure form a duality rather than a separated dualism or a unidimensional conflation. Giddens’s view is inherently relational (*ibid.*, 25): *“The constitution of agents and structures are not two independently given sets of phenomena, a dualism, but represents a duality. According to the notion of the duality of structure, the structural properties of social systems are both medium and outcome of the practises they recursively organize ... Structure is not to be equated with constraint but is always both constraining and enabling. This, of course, does not prevent the structured properties of social systems from stretching away, in time and space, beyond the control of any individual actors.”* The structuration theory of Giddens has been credited for capturing duality and criticized for overemphasizing agency and underemphasizing structure (e.g. Caldwell 2006, 101). Taking one step further, Scott (2008, 191) defines the *top-down structuration processes* to include constitutive activities, diffusion, translation, socialization, imposition, authorization, inducement, and imprinting, whereas the *bottom-up structuration processes* include selective attention, interpretation and sense-making, identity construction, error, invention, conformity and reproduction of patterns, compromise, avoidance, defiance, and manipulation. These may capture the forms and channels of exercising “causal powers” that reproduce or transform the “structural inheritance”.

Refining the Dimensions of Human Agency

Apart from the problematic relationship between subjects and objects, one of the main problems related to the extreme views seems to lie in the consideration of time. In the determinist view, time is either ignored or is viewed as an exogenous count behind a particular state of “being” as in the neo-classical economics. In the conflationist view, time is either ignored or embedded in the social processes and practices of “becoming”.¹⁷ In the realist view, the past plays a role for the actions to be taken in the present, and the actions taken in the present become the “structural inheritance” for the actions to be taken in the future. A more explicit consideration of time could provide an important step toward a more meaningful analytical structure for the agency, structure, and adaptation.

Emirbayer and Mische (1998), after an extensive review of agency conceptions and contradictions, have elaborated and have come to a temporal understanding of the agency. They have proposed to analytically disaggregate the human agency into three interrelated components: iteration, projectivity, and practical evaluation (Figure 9). The iterational component is directed toward the past, the projective component toward the future, and the practical-evaluative component toward the present. Their idea, worth of reflection and refinement at length, is that human agency is a temporally embedded process of social engagement and the full complexity of the agency can only be captured by placing it within the flow of time (ibid., 963-964):

“... the structural contexts of action are themselves temporal as well as relational fields – multiple, overlapping ways of ordering time toward which social actors can assume different simultaneous agentic orientations. Since social actors are embedded within many such temporalities at once, they can be said to be oriented toward the past, the future, and the present at any given moment, although they may be primarily oriented toward one or another of these within any one emergent situation. As actors move within and among these different unfolding contexts, they switch between (or “decompose”) their temporal orientations – as structured within and by means of those contexts – and thus are capable of changing their relationship to structure.”

Besides the “external” quantitative and unrelational conception of time, there is also a more embedded historical conception of time (Sztompka 1993, 44-45). The idea of considering historical time explicitly, which seems to help clarifying the dialectic relationship of agency and structure, is not far from Kierkegaard’s statement, where time has a central role (Gardiner 1988, 90):

¹⁷ McGrath and Kelly (1986, 55-56) make a distinction between six *temporal conceptions*: geological time (defined by the physical universe), biological time (defined by the ecology of the living systems), organizational time (defined by the system of instrumental activities), transactional time (defined by the system of interpersonal activities), cultural time (defined by the membership in a particular culture), and Newtonian time (defined in physics as an abstract, absolute, linear and reversible abstraction). They claim that “the individual must somehow deal with (we are tempted to say cope with) all of those conceptions with respect to each instant of time” (ibid., 54). Ancona et al. (2001b, 520), on the other hand, define linear time, uniform time, cyclical time, subjective time, and event time. Also other partly overlapping conceptions for the dimensions of time exist (e.g. George & Jones 2000, 674).

“It is perfectly true, what philosophers say, that life must be understood backwards. But they forget the other proposition, that it must be lived forwards.”

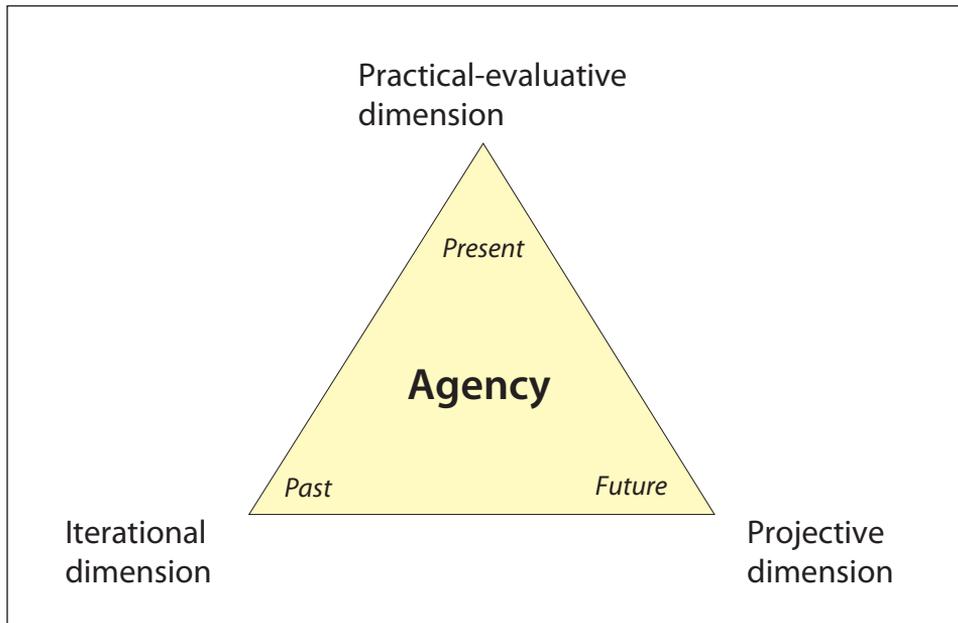


FIGURE 9 Dimensions or Components of the Human Agency; Own Illustration Based on the Configuration Presented by Emirbayer and Mische (1998)

The iteration component, in their conception, refers to a routine reactivation of the past patterns of thought and action into a contemporary practice of action, thereby maintaining stability, order, interaction, identity and institution (Emirbayer & Mische 1998, 971). The iteration component is the voice of the past. This voice is maintained by the affective and cognitive *schematization of the experience* (ibid., 975). The schemas are used to selectively recognize, locate and implement action (ibid., 975). To maintain continuity and order, the agency must first conform to a selective attention and recognition through some “*systems of relevances*” (Schutz 1964, 283) implying that she is differently alert to different things according schema-driven prioritization.¹⁸ Then, the “*process of typification*” synthesizes the recognition into routinely constructed simplified models, based on past

¹⁸ Schutz (1964, 283-284) explains his phenomenological idea: “*There is a relatively small kernel of knowledge that is clear, distinct, and consistent in itself. This kernel is surrounded by zones of various gradations of vagueness, obscurity, and ambiguity. There follow zones of things just taken for granted, blind beliefs, bare suppositions, mere guesswork, zones in which it will do merely to ‘put one’s trust’.* And finally, there are regions of our complete ignorance ... *what determines the structurization of the stock of knowledge at a particular Now ... it is the particular problem we are concerned with that subdivides our stock of knowledge at hand into layers of different relevance for its solution and thus establishes the borderlines of the various zones of our knowledge just mentioned.*”

experience (ibid., 979; Schutz 1967, 81-82). Finally, the typified event or experience is *located* in the (mostly unreflective) categories of identity and value. Essentially, this whole process features how different “structural inheritances” have different causal powers, as proposed by Archer (2000, 308). The activation of this system of iteration, Emirbayer and Mische posit, is related to the projectivity component (*expectation maintenance*) and to the evaluation component (*manoeuvrability maintenance*) of the agency, which now represent the secondary voices.

As such, the iteration component could be figured out as a sense-making and capacity management device as life “must be understood backwards”. Considered in light of the needs of our analytical structure, it could be thought to grant the agency with a cumulative pool of schemas or patterns or prototypic models of thought and action, contributing to the agentic capacity to cope with diverse situations.¹⁹ This capacity is needed to maintain coherence, continuity and identity of the agency.²⁰ The existence of this component would cause the agentic behaviour in the course of adaptation to be strongly affected by the path-dependent²¹ accumulation of the agentic capacity. The key role of this dimension of the agency may be claimed to lie in the maintenance of coherence. Abstracting from these ideas, *adaptation is about change in which history matters through the “system of coherence”, based on the “structural inheritance”, on the past experience of thought and action.*

The projectivity component, the second dimension of the agency, refers to the imaginative generation of possible future trajectories of action, which may transform existing structures of thought and action in relation to actor’s hopes, fears, and desires for the future (Emirbayer & Mische 1998, 971). The projectivity component is the voice of the future. This voice is maintained by *hypothesization of experience*, the construction of images or scenarios in response to the problems that cannot satisfactorily be resolved by the (past) habits of thought and action (ibid., 984). The future possibilities are first incorporated into *narratives* providing, above all, coherence of the action maps (ibid., 989). Then, narratives are creatively reconfigured by *symbolic recomposition*, by taking elements off and building unexpected combinations of the means-ends sequences, in order to expand the field of a flexible response (ibid., 989-990). These elements are flexible and

¹⁹ This resembles to Bourdieu’s (1990, 53) notion of *habitus* as “systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, as principles which generate and organize practises and representations” without supposing a conscious aim at ends or a mastery of the needed actions, but not ruling out “a strategic calculation” of the action, either.

²⁰ The view of Schutz emphasises rational ideas and envisages the ego or self “as some mix of decisionmaker, strategist, and gamesman figuring its commitments” (Bruner 1990, 110), but our abstraction basing on the maintenance of coherence includes also the role of the ego or self as “a storyteller, a constructor of narratives about a life” (ibid., 111), a strongly relational conception attuned to achieve external and internal coherence even through self-deception (Goldberg 2000, 138).

²¹ Path-dependency as a general notion captures the constraining or affording forces of the internal qualities of the subject herself and the contemporary external structures. Path-dependency as a concept observing historical time is explained in detail by, for example, Mahoney (2000). The existence of path-dependence easily violates many forms of rationality based on expected utility.

metaphorical, allowing a broad coverage of thought and action. Finally, *hypothetical resolution* becomes defined, capable for responding to the present concern of the agency in a synthetic way, by covering several desires simultaneously (ibid., 990). As such, the resolution is a bundle of hypothetical answers to several concerns, ready to be put to test at “*the borderline between imagination and action*” (ibid., 990), in the symbolic or real action. I could call this resolution a (hypothetical) project. This *experimental enactment* represents the secondary voice of the present, while the secondary voice of the past is brought in by the *anticipatory identification* of the future possibilities to become elaborated in this process; this identification is based on the stock of typified models, built under the iteration component. The differential implication of the quality of this projectivity component of the agency is generated by the individual way of understanding and processing time as fixed and determinate or as open and negotiable, which affects the degree of freedom that agents have in relation to existing structures (ibid., 985).²²

Looking at these ideas in light of a purposeful analytical structure for the phenomenon of adaptation, they may be conceived to describe an agency working at the borderline between the possible and the impossible based on its generative abilities. Although past experiences as a pool of loose models help in the current and anticipated concerns, the private and foreign experiences of surprise have taught that they only help up to a point: the future uncertainties need to be remarked to survive and succeed. The human agency is toned to survival in the future. This asks to cope with the uncertainty residing in the future by proactive accumulation of the stock of alternatives to become part of the agentic capacity. The existence of this component would imply that adaptation as agentic behaviour would also need a mechanism to generate new “branches”, new real or virtual futures projects and trajectories to become activated in diverse concerns. The key role of this dimension of the agency lies in the provision of alternatives. Abstracting from these ideas, *adaptation is about emergence and development of options for the agentic behaviour in the future within a flexible, coherent and metaphorical “system of generation”*.

The *practical evaluation component* as the third dimension of the agency refers to the capacity of actors to make practical and normative judgements among alternative trajectories of action, in response to the changing demands, dilemmas, and ambiguities of the current evolving situations (Emirbayer & Mische 1998, 971). The practical evaluation component is the voice of the present. This voice is maintained by *contextualization of the experience*, communicative process (with others or oneself) enabling the agency to act upon the concerns at hand, to make

²² Zimbardo and Boyd (1999, 1272) make a distinction between a “balanced” and a “biased” time orientation by the individuals. A balanced orientation is “*an idealized mental framework allowing individuals to flexibly switch temporal frames among past, future, and present depending on the situational demands, resource assessments, or personal and social appraisals*” (ibid., 1272). A biased orientation may arise when one of the three temporal frames is habitually overemphasized and “*chronically elicited*”, when this bias may become a dispositional style or an individual-differences variable (ibid., 1272). Zimbardo and Boyd consider this bias to be partly unconscious and become manifested in more visible forms like “*achievement, goal setting, risk taking, sensation seeking, addiction, rumination, guilt, and more*” (ibid., 1272).

decisions about pursuing projects to change something (ibid., 994). Earlier, the qualities of this dimension have been described also by the notions of “*prudence*” or practical wisdom [of choosing appropriate means for the ends] (Aristotle 1999, 89), “*representative thinking*” or enlarged mentality [of using one’s cognitive powers of imagination and understanding to think not only for oneself but from the standpoint of others] (Kant 1987, 87-88, 161-162) or “*reflective behaviour*” [based on self-consciousness with internal and external references] (Mead 1934, 91). The process starts with *problematization*, recognition of the situational concern where something must be done, where comprehensible practical judgement is needed (Emirbayer & Mische 1998, 998). Then, a *decision* is made to act in a particular way, whether as a discrete choice or as a flow of practical activity (ibid., 999). And finally, *execution* of the decision follows, featured by varying capacities of the agencies and possible feedback effects raising new concerns to be responded to (ibid., 999-1000). The secondary voice of the past is brought in by *characterization* of the situation, utilizing typifications from past experience in the complex process of (emotional and cognitive) perception (ibid., 998). The secondary voice of the future, *deliberation*, serves weighing the plausible choices for the desires and aspirations, and possibly searching for new means to achieve them, or specification of the projects to make them more plausible at “*the borderline between the intellectual and the passionate*” (ibid., 998-999).

For the needs of a purposeful analytical structure for the phenomenon of adaptation, the practical-evaluative component of the agency could be thought to bridge the past and the future in the present. A current concern – manifested as an aspiration – asks for action, a change in some state of affairs. While the pool of accumulated patterns of thought and action could be described as *metaphorical* in precision, flexibility and logic, this component of the agency is needed to draw the necessary ingredients from them in order to arrive at a decision as a response to the needs at hand, to transform “*multiplicity to unity ... regardless of the multiplicity and complexity of its component phases*” (Schutz 1967, 69). The existence of this component would also imply that adaptation as agentic behaviour is selectively responsive to the energizing needs (of internal or external origin) among the employable options. This dimension equips the agency with an ability to select among alternatives, needed to arrive at a decision to act (or not) in a specific way. Abstracting from these ideas, *adaptation is about choosing among alternatives of agentic behaviour (or projects) within a “system of selection”*.

Adaptation as Multidimensional Interaction

As evident from the discussion above, the concept of human agency illustrates many essential aspects that may be extended to become elements of a more general adaptation construct²³ as well. The agency as decomposed by Emirbayer

²³ “Construct” is used here to make a reference to the rather high level of abstraction. Quinn and Rohrbaugh (1983, 364) illustrate a construct to be “*constructed from concepts at the lower level of abstraction*”. They, for example, consider organizational effectiveness to be a construct rather than a concept (ibid., 363).

and Mische (1998) in its full complexity is presented in Figure 10. It synthesizes the processes that may take place, when a subject with its specific agentic capacity tries to resolve its concerns in changing contexts. *Differences in the agentic capacity (resources or accumulated ability) and in the qualities of the agentic processes – along with countervailing factors like incidence – may give rise to differences in the outcomes in a specific context, which as such provides different opportunities and constraints (freedoms) for different kinds of agencies.* In this study, the bases of influence, resources and agentic capacity, are represented by the “three balls”: the entrepreneur, the firm, and the environment. The presented structuring of the human agency, strongly basing on the phenomenological intentionality, may assist to uncover the underlying dimensions or metaconjectures of the agency residing in the entrepreneur. Whether they are relevant to and adequate for other agencies is discussed in Chapter 3.

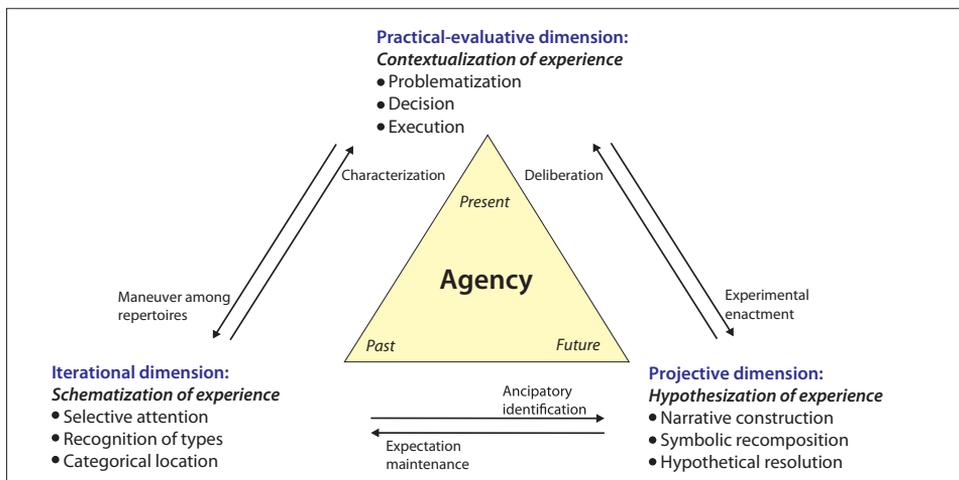


FIGURE 10 Dimensions or Components of the Human Agency in Full Complexity; Own Illustration Based on the Configuration Presented by Emirbayer and Mische (1998)

Having said all this about agency, mostly as a subjectivist account drawing on psychology, sociology, philosophy, and, within it, phenomenology, it could be possible to uncover the main elements and underlying dimensions of adaptation comprised by change processes that are put in motion – or not – by some agency. The ideas and conceptions reviewed above are used as raw material for the synthesis. *The synthesized elements and metaconjectures are “grey-boxed” propositions that could become bridged “upwards” towards paradigms and “downwards” towards lower-level conceptions related to the phenomenon.*

At this level of abstraction, an agency could be defined by three dimensions considered as continua: 1) the determination–deliberation continuum (*the degree of freedom in exercising influence*), 2) the internal–external continuum (*the origin of the influence*), and 3) the temporal continuum (past–future) of the *modus operandi* of the agency (*time*). Adaptation as a process arising from the exercise of agentic capacity towards change, then, becomes fundamentally delineated

by the changeability of things (what), by the motives to change them (why and who), and by the temporality of change (how, and why in this way) – all comprehended as continua. On the other hand, the agency could be thought to include three behavioural sub-systems or elements: 1) *the system of coherence*, 2) *the system of generation*, and 3) *the system of selection*. The three continua could be regarded as metaconjectures bridging the most important underlying dimensions of adaptation, accompanied by the three behavioural elements residing within the agency. *Agency is related to adaptation through the capacity for change. Agency is affected by the “structural inheritance” and energized by the aspirations, desires or concerns of many kinds. Such agency may reside within the entrepreneur, the firm, and the environment, which include the behavioural sub-systems of coherence, generation and selection and may become defined and delineated by the three metaconjectures: determination – deliberation, internal – external and past – future.*

After this preliminary craft of the analytical structure, let us return to the image of the ants. Many people consider ants to be simple creatures who follow simple rules of behaviour. Evolution has directed and polished their development in such a way that their simple choices in their own little world produce amazing variety and regularity at the system level, of which they probably are not aware of, as Schelling (2006, 22) points out. No ant has designed the coherence of the output that still looks coherent to us as external observers. Dare I say, an economist could identify rational behaviour here, whereas someone from another discipline may see a paradox. Even behaviour based solely on rules can produce complex and diverse outcomes through local interaction without global systemic understanding. Following a rule does not require complicated sensemaking, since agreeing to the rule fulfils the aspiration of following a rule. If a “machine” works by rules, it is happy to follow one. If the rules were placed on the ant by the “slow hand” of evolution, they are evidently the energizing source of the agency driving the ants in their interaction: the ant possesses an agency, though not a deliberate one.

Unlike rule following, a very deliberate behaviour in a complex setting requires systemic understanding of oneself and of others (Boulding 1956, 204).²⁴ Making sense of one’s aspirations and means to fulfil them becomes an important task for the human being. Meanings energize the human agency, although a rule may have a similar meaning as it has for the ants: it has to be followed if it has become activated. Rules and more deliberate intentions of various kinds comprise *aspirations*. Only aspirations attached with a meaning – however primitive and habitual or complex and fuzzy – can change the various stocks of

²⁴ Boulding (1956, 202-205) defines nine system types underlying the *general systems theory*: 1) static structure or framework, 2) simple dynamic predetermined system or clockwork, 3) control mechanism or cybernetic system, 4) self-maintaining structure or open system, 5) genetic-societal systems of blueprinted growth by the division of labour, 6) systems basing on the internal image of the environment, 7) systems capable for symbol processing, 8) social organizations, 9) transcendental systems. Simple systems endure without any self-referential qualities, intermediate systems may rely on concrete analogues about the system-environment relationships, whereas more complex system require symbolically mediated representations of both the self and the environment (Adler & Borys 1993, 670).

material and immaterial energy into flows of relational action: the human agency is energized by aspirations. The adherence to both internal and external influence makes the setting genuinely complex (cf. Hogue & Lord 2007, 374). *The human agencies residing in the various domains and facilitating adaptation are energized by the aspirations, which are the locus of meanings with varying changeability (rules, deliberate intentions), subjectibility (internal, external)²⁵ and temporality (past, present, future).*

Coming back to adaptation as a relational process in the social world, it is a systemic construct in which any actor possessing agentic power – ability to “energize” change – has *some sort* of a system maintaining coherence, identity and continuity through ordering and organizing aspirations, resources and actions.

²⁵ “Subjective” is commonly used as the opposite to “objective” in the social sciences. For example, in Burrell’s and Morgan’s (1979) four paradigms for the social theory this is the other underlying dimension. They restate the common view of the ontological distinction (Burrell & Morgan 1979, 1):

“Social scientists, for example, are faced with a basic ontological question: whether the ‘reality’ to be investigated is external to the individual ... or the product of individual consciousness: whether ‘reality’ is of an ‘objective’ nature, or the product of individual cognition; whether ‘reality’ is a given ‘out there’ in the world, or the product of one’s mind.”

Burrell and Morgan conceive subjective to be the same as internal, and objective to be the same as external. The question is both important and absurd. All of the reality observed by the human beings is observed and explained by the subjective perception and sensemaking of “*individual cognition*”. In this sense, every reality is subjective. But this does not mean that some reality would ontologically exist only as a “*product of one’s mind*”. Probably Jupiter existed before we humans were here to observe it and before it became part of the “objective” reality by our subjective perceptions. The subjective knowledge of a decent shopkeeper could be much wider and deeper (more “objective”) than any information obtained from her business by external observers, even by an army of scientist. If the internal (subjective) observation and understanding was a limited “tube”, the external was just another one. If “objective” means shared among many or majority rather than just someone, it would be absurd when the one was “right” and the many proved out to be “wrong”. Further on, if the “subjective” is the voice of the meanings for the subject in question, is the “objective” somehow meaning-free? Or does it rather carry meanings of the external subjects, when the social world is concerned? The thinking tradition of “subjective-objective”, actually blending the dimensions dealing with the limits of perception, consensus of meaning and point of observation, is not applied in this study. Instead, the internal-external –dimension (subjectibility) is applied as a more appropriate meta-theoretical dimension in studying adaptation and performance. Deetz (1996, 193-195) shares this view by asserting the subjective-objective debate to be uninteresting and misleading. Weick (1995, 35) has also made a critical note on the applicability of the structure presented by Burrell and Morgan:

“That very mixing of ontologies is what drives Burrell and Morgan nuts. But it shouldn’t. People who study sensemaking oscillate ontologically because that is what helps them understand the actions of people in everyday life who could care less about ontology ... If people have multiple identities and deal with multiple realities, why should we expect them to be ontological purists? To do so is to limit their capability for sensemaking. More likely is the possibility that over time, people will act like interpretivists, functionalists, radical humanists, and radical structuralists.”

Kováč (2007, 69-70) proposes a feasible definition for subjectibility:

“The propensity of the world, ensuing from the second law of thermodynamics, to create subjects, may be designated as subjectibility. If we want to have a third ‘substance’ in the world, in addition to matter and energy, it is not information, but subjectibility.”

Also *some sort* of a system of generation is needed to produce alternative solutions for the aspirations and actions, and *some sort* of a system of selection is needed to judge the alternatives to meet the aspirations to end up (or not) with some action. *Changeability, subjectibility and temporality of these dispositional behavioural sub-systems feature their characteristics as important elements of the “structural inheritance”.* *The causal powers attached to the behavioural systems they characterize will guide the agency in facilitating the aspirations by some action. They feature the origin, order and logic of the agency to manifest itself through a practical action, which is the ultimate object of the inquiry of adaptation also in the small firm world.*

Agency reconfigured

Even though some posit that having agency means having latitude to “act otherwise” and that in the absence of such a choice there is no agency at all (Giddens 1984, 14-15), the adaptive behaviour energized by rule-following still implies that an ability exists for action which can possibly change structures (cf. Tsoukas & Chia 2002, 569), whether it is based on following ordered preferences to choose the optimal behaviour to maximize utility (Jehle & Reny 2001, 6; Walras 1954, 116), on complying with institutional pressures set out by the formal rules, informal norms or enforcement characteristics (North 2005, 67), or on one’s moral obligations (Kant 1987, 286-287). Even the most brilliant optimizer makes mistakes and even the most brutal sanctions are unable to completely prevent illegal actions. A rule-based action is just driven by a different kind of a motor than action driven by a “free will”. Rather separate cells for an ontological prison, a continuum could be constructed of this. Keeping with the duality framework, the adaptive behaviour may be driven by a deterministic or voluntaristic motor.

Through the meta-level construct of adaptation elaborated so far, bridging the underlying dimensions of control, origin and time, several discussions can be initiated and structured concerning the characteristics, relationships and effects of the agency: “to put in motion” what, why, by whom, and how. This analytical structure frames the general aspects of adaptation as well, since adaptation means interplay of various agencies over time with some specific consequences. *In this interaction, various “structures” change within the agencies involved and in the physical world they are situated.* Adaptation as a meta-level construct of interactive behaviour is illustrated in Figure 11, where the agency consists of dispositional behavioural sub-systems of coherence, generation and selection, characterized by the qualities of changeability, subjectibility and temporality. Idiosyncratic or more aggregate level differences in the elements of the systems and qualities of the processes taking place within and between them, as featured by the continua, bring about the observed diversity of the adaptive behaviours in reality. *Heterogeneity in the contemporary characteristics of the agencies involved in adaptation along their “structural inheritances”, affecting the actions they engage with, is the key for identifying the causal powers facilitating specific adaptation.*

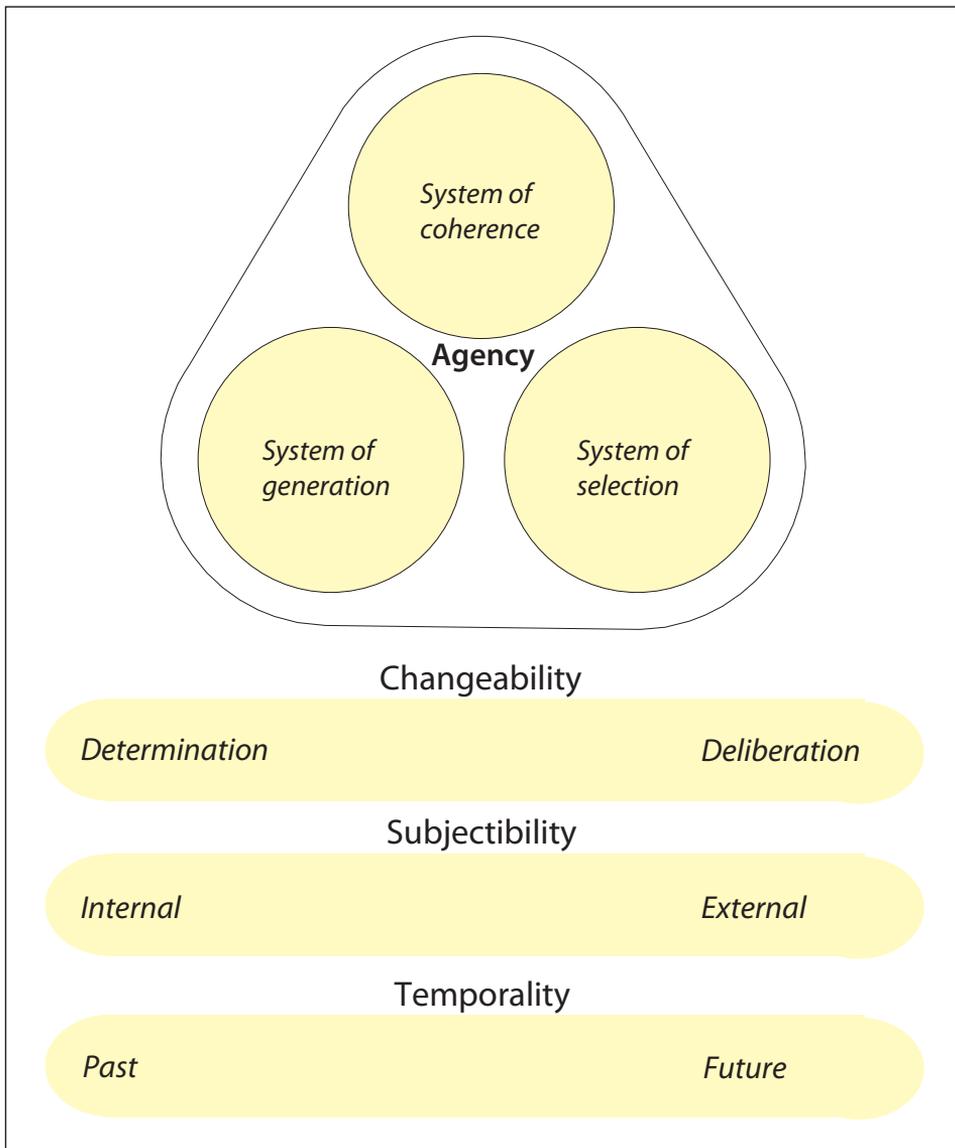


FIGURE 11 Elements and Metaconjectures of the Adaptation Construct Based on Agency

The antecedents (“structural inheritance”) and outcomes of possessing and exercising specific agency can be studied from many perspectives and at various levels of analysis, but the elements and meconjectures developed here are proposed to be considered when studying phenomena which falls under the rubric of adaptation.²⁶ Then, *one could identify the systems of coherence, generation and selection²⁷ and figure out how they operate on the continua of changeability, subjectibility and temporality to generate variation (in populationist’s research interest) or archetypic configurations (in typologist’s research interest).*

Adaptation is a relational process of change (and stability), where an indefinite number of possible relationships can be identified and explored, why simplified and logical basic frameworks are important. In the social world, adaptation refers to the interaction of the human agencies with each other and with the natural world, as afforded and constrained by their agentic capacities in relation to each other and to the natural world. The agentic capacities reflect the qualities and powers of the “structural inheritance” residing within each of them (i.e. within the human agencies and in the natural world), having the potential to generate some specific structuring effects on them (i.e. human agencies and the natural world) as a consequence of the actions. The elaboration presented in Figure 11 is meant for a basic unit in the general metatheoretical framework, and its elements are discussed more in detail throughout the study. *It should make it possible to observe and characterize the causal powers behind the relational phenomenon of adaptation without a need to declare a paradox in the first instance or stay in a paradigm prison.*

2.2 Performance

Performance is a broad construct which can reflect many things: size, growth or the survival time of an ant colony; the degree of internal satisfaction arising from meeting one’s aspiration levels in a specific occasion; external observation of an entrepreneur’s wealth, profitability of the firm, survival of firms within some region, or the national balance of exchange; and many more. In general, performance can be perceived from many points of observation, it may cover static structures or dynamic processes, quantitative or qualitative aspects,

²⁶ Plotkin (1993, 246) distinguishes between adaptation as “*some feature or attribute of an organism that helps it to survive and reproduce*” and behaviour as “*adaptive action or doing*”. The three behavioural systems featuring the “structural inheritance” are adaptations, results of the history, and may afford and constrain particular behaviour. As such, the analytical structure presented may “collect” the results of adaptation (aspirations, resources in any form, behavioural repertoires; Plotkin’s “features or attributes”) that are present at any moment of time as “knowledge” of the evolutionary epistemology (ibid., 248).

²⁷ A careful reader will make a note that these relate closely to the processes of generation, selection and retention/replication in the evolutionary epistemology. “Coherence” is preferred over “retention” or “replication” or “inheritance”, because this study discusses social systems working not through mechanical (differential) reproduction or replication, but much through cognitive and emotional meanings, so fundamental for the human mind. As a special case, coherence could be reduced to retention/replication as a mechanical, unidimensional process.

varying time periods, and diverse levels of aggregation. Looking at the theoretical literature and empirical research, “performance” can be almost anything on the output-side of the balance sheet, including the constituting process. The variety of research interests and empirical approaches have produced a fragmented though multifaceted view of the performance concept.

The Challenge of Universality

Some conceptions of performance are thought to be universal and comparable, some are not. In the world of economics, the firm as a nexus of transformation and exchange is logically at the core of the performance issue. Firms are vehicles for transforming various “resources” into “utilities” for various stakeholders. According to conventional economic thought, performance is seen from the window of the “invisible hand” worrying about the allocative efficiency and proposing to discuss performance purely in terms of her worries, in terms of how the transformation takes place in the most efficient way to allocate the relatively scarce resources according to ordered preferences in an optimal way. This idea of performance is based on maximization behaviour – maximization of utility and profit (contributing to the utility of the recipients of profit). This kind of a norm should energize the economic agency, the atomistic “ants” engaged in the economic exchange. According to conventional economic thought, performance implies rule-driven adaptation of action (production, consumption) towards the deterministic optimal setting.

In another world, the performance window of an entrepreneur may be framed by spiritual passion, idiosyncratic cognition, ambivalent reference point, moral consensus, legal obligation and economic affordability simultaneously, directing behaviours toward adequate, reachable and threshold-bound performance. Even though only a bizarre person runs a business for making losses rather than profits, performance in the entrepreneur’s world may still appear idiosyncratic, relational and voluntaristic rather than unidimensionally rule-based. That kind of multidimensional deliberation or coping behaviour could be observed to energize the entrepreneurial agency.

When the latter psycho-socio-economic ontology considers economic activity as an “imperfect” human and social affair, the previous economic ontology is a manifestation of a “perfect” world operating outside the human deliberation: the “economic man” has the role of a soldier in the Hobbesian war. The economic ontology of human behaviour may present a norm against which to judge any actual performance as to whether or not it meets the optimum provided by the ideal of perfect rationality. As such, it is a clear and understandable yardstick for performance. But *the economic ontology also proposes that the economic agency of exchange and the human agency of interaction represent isolated worlds*. Since both are actually exercised by human beings, one could easily see a paradox here, too.

Assuming this contradiction about the quality of the agency – as energized by a rule or by deliberation – the issue of firm performance easily becomes a blurred conception. “Objectivity” of the positivist mind-set may be based on flawed normative behavioural presuppositions of the actors, inflating the boundaries of the formal economic explanation. At the other extreme, dogmatic “subjectivity”

may overshadow truly external positivist forces beyond ones control, inflating the boundaries of the social-psychological explanation. Economic thinking tells a story about how an external norm energizes an agency; the socio-psychological thinking tells a story about how an internal deliberation energizes an agency. Simon (1959, 262) highlights the challenge for the part of conventional economics:

“(a) The [economic] theory leaves ambiguous whether it is short-run or long-run profit that is to be maximized.

(b) The entrepreneur may obtain all kinds of ‘psychic income’ from the firm, quite apart from monetary rewards. If he is to maximize his utility, then he will sometimes balance a loss of profit against an increase in psychic income. But if we allow ‘psychic income’, the criterion of profit maximization loses all of its definiteness.

(c) The entrepreneur may not care to maximize, but may simply want to earn a return he regards as satisfactory ... ‘satisfactory profits’ is a concept more meaningfully related notion of aspiration levels than to maximization.

(d) It is often observed that under modern conditions the equity owners and the active managers of an enterprise are separate and distinct groups of people, so that the latter may not be motivated to maximize profits.

(e) Where there is imperfect competition among firms, maximizing is an ambiguous goal, for what action is optimal for one firm depends on the actions of the other firms.”

The first point made by Simon reminds us of the importance of the temporal dimension, whereas the second point reminds us of the “paradoxical” multidimensionality of the concept: firms serve a heterogenous bundle of aspirations, even though they are vehicles for business. How this setting should be handled in economic theory is the concern of his third point. He proposes deliberate “satisficing” rather than rule-based “maximizing”²⁸ to be used as an ontological presupposition of behaviour. The fourth point relates to the specific principal-agent –problem not relevant for the small firms discussed here, and the fifth point reminds us of the relational nature of the performance contract.

All in all, the points made by Simon reflect the fundamental problems in discussing firm’s performance either as a non-relational, universal and unidimensional product of the “rational” agency, or as a relational, idiosyncratic and multidimensional product of the agencies serving diverse ambitions and aspirations (Figure 12). These ideas deeply affect the way (economic) performance should be conceived. When the agency is fully energized by *rules*, then fulfilling the rules – as the single source of aspirations – is a relevant basis of the performance evaluation. If the rules were universal, then comparison of the resulting performances is possible within comparable actors and comparable contexts, because in each such case performance should be, in fact, similar. If the ants had only the rule-based aspirations energizing them, then the size and survival of the colonies in comparable environments makes sense as a performance indicator, controlled for by their age. If the behavioural rule of economics indeed was universal, then its use as a performance indicator makes sense among comparable actors and within comparable environments.

²⁸ This distinction is one of the cornerstones for the “behavioural view” or “behavioural theory” of the firm, looking more closely at the actual behaviour of the firms (Cyert & March 1992).

On the other hand, if the agency was fully energized by *deliberation*, then fulfilling those diverse desires and concerns – as sources energizing aspirations – would form the logical basis of the performance evaluation. Heterogeneous aspirations would result in heterogeneous thresholds for the performance, allowing maximizing, satisficing and ignorance-based behaviours. They could explain the “non-rational” survival of the “under-performing” firms that some have called “chronic failures” (van Witteloostuijn 1998, 503) or “living dead” (Bourgeois & Eisenhardt 1987, 143). If the aspirations were a combination of the two kinds (non-relational and relational), then a combination of the non-relational and relational accounts of performance could be used, as illustrated by the metaconjecture in Figure 12.

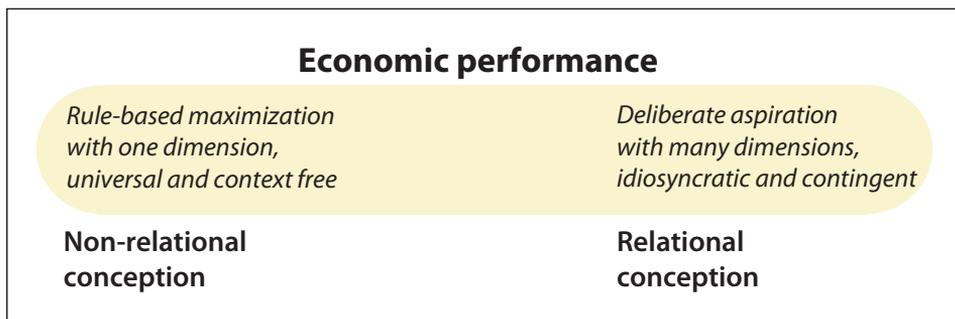


FIGURE 12 Economic Performance as a Non-Relational vs. Relational Behaviour

The universality of performance conception is, of course, just one example of the challenges related to the performance construct.²⁹ Universal conception makes sense for universal things. Conventional measurement of the *economic performance* relies on rather narrow, universal and historical indicators of performance that do not reflect the multidimensional, relational and temporally embedded view residing “at the other side of the coin”. For that reason, it is useful to review also *organizational performance* to uncover more ingredients for the performance construct.

²⁹ Conventional neo-classical economics is primarily directed at studying the “surface”, how prices allocate resources between competing needs by the forces conceptualized as supply and demand, ultimately serving utility directly (consumption) or indirectly (firm profit contributing to owners’ consumption). This may cause problems, because “it is a mistake to confuse the firm of economic theory with its real-world namesake. The chief mission of neoclassical economics is to understand how the price system coordinates the use of resources, not to understand the inner workings of real firms” (Demsetz 1983, 377). This may be the case, but on the other hand the orthodox microeconomics specifically focuses on the “inner working of real firms” as to how they come up with the optimal solution with a given production set (or even, among all possible production sets?) and may face even more problems than macroeconomics when confronting the multidimensional heterogeneity, contractual differences and alternative modes of governance (Williamson 2002, 440). As a consequence, a number of specific theories and business economics research fields have emerged, but will still have also the conventional microeconomics with us.

In the methodological practice, many of the indicators used to measure non-relational change rather than relational performance, exploring the “space between” (Bradbury & Lichtenstein 2000, 551). For example Cameron (1986, 549), while criticizing the narrow and unidirectional thinking about organizational performance, asks to approve the existence of paradoxes³⁰ in the measurement of effectiveness, because reconciling contradictory elements in action may be an important source of insight, creativity, flexibility and remarkable advancement – i.e. performance. There are implications for the methodology, explicitly proposing the use of continuums (ibid., 551):

“The complexity of effective organizational performance cannot be evaluated without considering simultaneous opposites ... investigators should measure both the extent to which the element ‘a’ is present as well as the extent to which the opposite of ‘a’ is present. Low scores on ‘a’ may not necessarily indicate the presence of its opposite.”

Apparently, high economic performance does not necessarily imply high performance from a personal (e.g. stress, jealousy, time for private life) or social (e.g. pollution, inequality) point of view. How to capture the old shadow-boxers “adaptation” and “selection” simultaneously is a similar example of the methodological challenge. It becomes obvious that “performance” may be different when observed from *different points of observation*. The economic agency evidently places the behavioural rules on the head of the “economic man” by her invisible hand residing somewhere in the environment to see universally acceptable and applicable measures of economic performance. The organizational actors, the “administrative man” and the entrepreneur are evidently able and willing to take a wider perspective on the performance issue. From a higher point of observation, an ant colony (or other institution) could quite rightly manifest itself as a brilliant construction of the ants. At the lower level of observation, the ants may credit their own co-creation for providing safety, but also blame it for constraining their individual freedoms. Both epistemologically and methodologically, *the point of observation* becomes a crucial issue, as well as *the analytical structure* used to capture the multidimensional character of the performance as an outcome of adaptation enacted by the *several* agencies.

³⁰ Paradox illustrates contradictory or even mutually exclusive opposite elements or aspects that are simultaneously present, like loose and tight coupling, differentiation and integration, high specialization and high generality etc. Since they all may indeed exist within the piece of reality under observation, the paradox always exists in the mind of the observer, arising from the meanings attributed to particular aspects of the reality. As such, it is always “artificial”, since in the reality there are no paradoxes, things are just as they are. Since paradoxes often represent claims made from paradigm prisons, they are a fertile ground for advancing scientific understanding, since they flower in the confused fields of human sensemaking. A special case known as the “Red Queen Effect” is an example of a performance paradox, which challenges methodology in particular. It describes a situation where a change of subject is the same as that of her reference point, causing the impression of no-change, or a need to run to stay still in the relative sense (Barnett & Hansen 1996, 140; McCarthy 2004, 143; Van Valen 1977, 809).

Performance Observation Point: The Entrepreneur

How should one comprehend performance having the *entrepreneur as the point of observation*? Agency as a power to generate action is energized by the aspirations of the entrepreneur. For her, the firm is a vehicle for meeting some of her aspirations in the business field. For her, the environment to be met with this vehicle is “behind” the firm. The energizing aspirations may be economic (e.g. wealth), psychological (e.g. independence) or social (e.g. reputation, trust) in quality. The aspirations activated, the resources controlled and the behavioural sub-systems possessed, have various qualities that may become characterized by the continuums of changeability, subjectibility and temporality. The aspirations are the energizing source of the agentic actions, fuelling the agency taken by the entrepreneur. For her, performance means, on the one hand, changes in the content of her “barrel of aspirations” as a consequence of the operation of the particular firm under her control. On the other hand, it also means changes in the resources and in the behavioural sub-systems of generation, selection and coherence along the actions responding to her aspirations.³¹ Along the action, the present becomes history (“structural inheritance”) and a new landscape opens up for the future.

The contents of the “barrel of aspirations” may have differential *changeability*: each of them as such and against others (Lumpkin & Dess 1996, 153). Obeying rule-based obligations (e.g. covering financial claims) may reflect deterministic aspirations, whereas following voluntaristic desires (e.g. creating particular kind of art for sale) may reflect deliberate aspirations. The aspirations may have different *origins*. For example, the rule-based aspiration stemming from the obligation to pay one’s taxes may have individually different internal (moral) or external (sanction) origin. The aspirations may carry diverse *temporal* endurances and orientations as a convenience of the past habits or as an excitement of the creative search for unfamiliar keys to survival in the future. Resources, of course, may be placed on the same continuums of changeability (e.g. usability, “fit”), subjectibility (e.g. origin) and temporality (e.g. endurance, accumulation). The behavioural sub-systems of generation, selection and coherence may become featured along the lines discussed earlier, with a reference to a specific strength (dominance) and sequence in the operation of the three sub-systems. *The qualities of these three elements – aspirations, resources and behavioural systems – all carry a specific idiosyncratic “structural inheritance” at any moment of time, having differential causal powers on the agentic capacities possessed by the entrepreneur, and being subject to change along the course of action and time.*

An entrepreneur’s aspirations and the firm performance responding to them are the source of an ongoing “debate” as to what to do, how and why; both may change in this debate. Various patterns of “fits” may emerge between them. The aspiration–performance interaction is *moderated* by the resources, and by the behavioural systems maintaining coherence (e.g. identity, continuity, control,

³¹ This notion is similar to the concept of “double morphogenesis” in critical realism thought, where the dual nature of social change is comprised by a “double change” of the structures and the agency itself. “Agents transform themselves in the process of pursuing social change” (Archer 2000, 268).

coordination, relevance, sensibility), generates proposals for change (e.g. creative or imitative hypothetical “projects” or metaphoric patterns to respond to the various rules, desires or concerns), and select the practical actions to be followed (e.g. evaluation, contextualization, decision). Important aspects of the role of these processes may become conceptualized through, for example, habits (Hodgson & Knudsen 2004, 286-287) or “cartographic” sense-making practises (Weick 2001, 9) also specifying the meaning and order of the actions.

For the entrepreneur, performance is driven by the aspirations and conditioned by the resources and behavioural systems, all affecting the interaction with and through “the firm” as the nexus of exchange. For the entrepreneur, performance means, on the one hand, changes in the contents of the “barrel of aspirations” as to how aspirations become met by the existence and activities of the firm, and on the other hand, changes of the resources and behavioural systems along this effort, reflecting her agentic capacities.

Performance Observation Point: The Firm

Continuing this line of inquiry, how should one comprehend performance having the firm as the point of observation? The reason for the existence of an organization is not random despite the diversity and randomness surrounding organizational life. Every organization exists for a purpose. Firms are organizations that exist for business purposes. Aldrich and Rueff (2006, 4) define organizations as goal-directed, boundary-maintaining, and socially constructed systems of human activity. One has aimed to consolidate the related concept of *organizational performance* by various approaches (Dess & Robinson 1984, 265; Ford & Schellenberg 1982, 50).

The *goals approach* defines performance as achieving explicit or implicit goals (Etzioni 1964, 16); the *systems resource approach* defines performance as the ability to bargain resources from the environment (Yuchtman & Seashore 1967, 898),³² whereas the *process approach* defines performance through the effectiveness of the behaviour of the organization participants (Steers 1977, 176-177). In the above, the goals approach could also be considered as a rational goal model, the systems resource approach as an open systems model and the process approach as an internal process model (Quinn & Rohrbaugh 1983, 369). Finally, the *constituent approach* views performance in terms of how the aspirations of various internal and external “constituencies” are met, as they expect something in exchange for their involvement in the coalition and may have varying powers to call them (Connolly et al. 1980, 213; Davidsson et al. 2006, 8; Friedlander & Pickle 1968, 293; Hunt & Morgan 1994, 1582; Pfeffer & Salancik 1978, 45; Thompson 1967, 83). At an

³² Yuchtman and Seashore (1967, 891), while dealing with organizational effectiveness, make noteworthy points on the aspects of relationality and changeability in this field: “The organization’s success over a period of time in this competition for resources – i.e., its bargaining position in a given environment – is regarded as an expression of its overall effectiveness. Since the resources are of various kinds, and the competitive relationships are multiple, and since there is interchangeability among classes of resources, the assessment of organizational effectiveness must be in terms not of any single criterion but of an open-ended multidimensional set of criteria.”

extreme conflation level, organizations could be seen as “a performance” (Doolin 2003, 752) or as a “*continual process of becoming effective*” (Zammuto 1984, 608), purely as an ongoing process of ordering, driven by the purposeful construction and organizing, fading out the idea of the organization as a stable structure (Law 1994, 34).

The multiple constituent approach as the broadest approach confesses genuine multidimensionality of the performance concept: in the same evaluation of the performance, managers may apply the goal approach, the government may apply the systems approach, and the employees may apply the process approach – each with a different frame of reference regarding contents and temporality of the performance (Connolly et al. 1980, 214). Many of these conceptions actually consider performance as the *effectiveness* of an organization. Some have attributed effectiveness to the person-oriented dimension and efficiency to the organizational dimension of performance (Ostroff & Schmitt 1993, 1346). Clearly, all the relational views treat the idea of organizational performance as an instrumental and integrative concept – as performance for something, toward the *purpose* of existence or toward the ability to exist. Whose aspirations are to be reflected is one aspect of the purpose. This may give different meanings for a single, specific performance *outcome*.

How a single outcome can be captured, is another worry (Ford & Schellenberg 1982, 54):

“... the linkages among context, structure, and outputs are not direct, logical or necessary. Rather, the occurrence of several ‘moderating’ factors (e.g., control, slack) serves to decouple ... context from structure, formal structure from operative structure, and structure from outputs. This decoupling indicates that organizations may be assessed at several points with different consequences.”

What to measure, from whose point of view, with what conception of time, and many other issues, may create epistemological and methodological disputes. If a firm exists for the business purposes of the entrepreneur, then profit could be a logical choice for the performance indicator, as proposed by the neo-classical economics. Conceptually, this reduces the meaning of the performance from effectiveness to *efficiency*, to unidimensional physical or financial input-output transformation efficiency (Etzioni 1964, 8).

Other dimensions also exist. Chakravarthy (1986) has discussed the dimensions of *strategic performance* featuring the long-term adaptation of a firm to its environment. He criticizes the conventional measures of profitability and financial performance for signalling the past performance outcomes and ignoring the claims of the non-owners (ibid., 445). Further on, acknowledging the multitude of the constituencies of effectiveness will bring in the possibility of considering a more realistic and diversified temporality (Connolly et al. 1980, 215): “*Different constituencies may be dealt with by an organization in different time frames*”, where the pool of constituencies may also change over time (Zammuto 1984, 612). Time frames have an essential impact on the assessment of performance (Tolbert & Hall 2009, 198). Young firms may benefit from “discovery advantages” whereas older firms may benefit from “exploitation advantages”, for example (Steffents et al. 2009, 125). Time also generally erodes specific sources of performance differences

(March & Sutton 1997, 699). Time plays many roles. The notion of Kimberly, Norling and Weiss (1983, 257-258) is worth repeating:

“Traditional perspectives on performance tend to ignore the fact that organizations also perform in other, less observable arenas. Their performance in these arenas may in some cases be more powerful shapers of future possibilities than how they measure up on traditional criteria. And, paradoxically, competence in the less observable arenas may be interpreted as incompetence by those whose judgements are based solely on traditional criteria. Particularly in the case of organizations serving the interest of more than one group where power is not highly skewed and orientations diverge, the ability to develop and maintain a variety of relationships in the context of diverse and perhaps contradictory pressures is critical yet not necessarily visible to the external observer.”

The adaptation construct contains these relational and multidimensional aspects of performance. Traditionally, however, the adaptation of firms (or organizations) has been used as a one-way conception, where adaptation of the firm to the environment is the source of performance: the well-adapted firms have a good “fit” with the environment and, because of that, superior performance (e.g. Ginsberg & Venkatraman 1985, 421; Lawrence & Lorsch 1967, 43; Miles & Snow 1994, 12). This view is supported by the fact that, in order to survive and prosper, *the firm must extract resources from the environment*. Firms exchange products and services (serving aspirations) for resources contributing to the existence and purpose of the firm. Firms are *open systems* depending on the external energy. Despite this important general resource-dependence (Pfeffer & Salancik 1978, 43) setting, the environmental determinism is just one part of the story, easily overshadowing several aspects of the interactive dynamics, multidimensionality and equifinality (Ashmos & Huber 1987, 616; Lenz 1981, 143; Miller 1992, 159; Zajac et al. 2000, 430).

Logically, firms adapt also to the *aspirations of the entrepreneur (owner)* as long as his/her aspirations do not collide with the firm to be precisely the same thing (like the profit maximization in the neo-classical idealism).³³ The entrepreneur has the discretion to give up a profitable firm (Ucbasaran et al. 2001, 69), however. The assumption of a single, unidimensional behavioural rule is just an example of one extremist position. Evidently, there is scope for varying “fits” also in this arena

³³ This tendency has probably been an outcome of the tradition of studying large rather than small firms (Storey 1994, 5). Large firms often have so many owners that they have less latitude for the behaviour other than orthodox profit maximization (cf. Nooteboom 1994, 329). It is easy to figure out a setting, where maximization of profit for the firm and aspirations of the entrepreneur are not identical. The social environment, for example a village where the shop is located, may regard the entrepreneur as a greedy person and turn against her if she was aiming for growth and “maximum profit” by buying one competitor after another. If not willing to change the business or the location (changeability), she might be forced to “satisficing” on social grounds (subjectibility), at least for a while (temporality). This kind of behaviour may arise from personal moral values, extraordinary time frames, or emotional predispositions (e.g. Elkington & Hartigan 2008, 3-5, 12, 15). Various kinds of institutional and socio-psychological aspects may, indeed, play a role - for example “*power, prestige, public approval, or the mere love of the game*” (Penrose 1995, 30) or “*thrill of its success, if that should come*” (Shackle 1955, 6).

of performance. In addition, the interaction may be bidirectional on both arenas: owners and other internal stakeholders adapt their aspirations in response to the feedback gained (e.g. Cyert & March 1992, 39), and the environment surely becomes adapted as a consequence of the “structuring” operations of the firm. Consequently, performance frameworks with more dimensions have been developed to capture these aspects (e.g. Kaplan & Norton 1992, 2004).

The traditional unidirectional view of performance, where firms adapt to their environments on the “front” arena, clearly misses the important “back” arena. Both these arenas are important in the analytical structure aiming to capture performance having the firm as a point of observation: the firm “performs” in both directions. The third performance arena has traditionally been internal to the firm or organization. There, various forms of “internal fits” affect performance in terms of efficiency of the physical or financial transformation and exchange. A firm may absorb, transform and deliver energy in many forms and arenas (Friedlander & Pickle 1968, 302). *Efficiency may reflect universal and comparable performance, but effectiveness requires a relational view of performance, taking place across three battlefields of performance.* This general analytical framework to capture performance is illustrated in Figure 13. It illustrates the instrumental role of a small firm as a nexus of exchange and transformation for the aspirations and resources. The idea provided by field theory (Lewin 1951, 45, 256) comes close to this relational metaphor in illustrating outcomes of the interaction by the agencies residing in the various domains. *Ordering of the powers or agentic capabilities and sequencing influences and events are solutions for avoiding absolute relativism in the inquiries of this multifaceted interaction.*

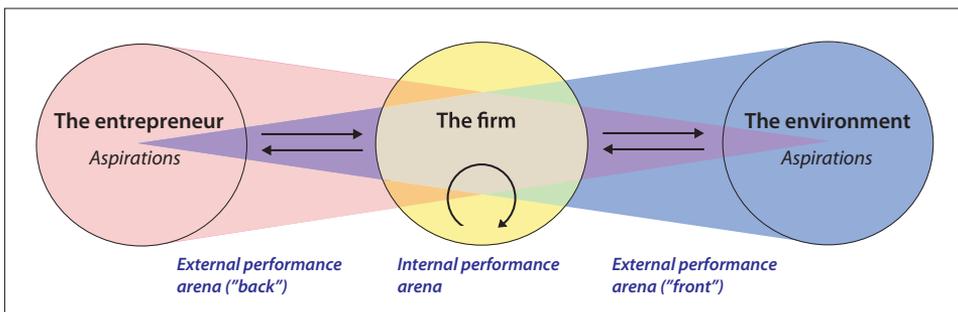


FIGURE 13 Firm Performance as a Relational Interaction

Understanding the firm as this kind of a nexus alleviates the imbalance and inadequacy of the conventional or restricted view. A firm is simultaneously subjected to the entrepreneur’s aspirations, and as a business vehicle it is also subjected to the environment’s aspirations (customers, suppliers, other resource holders and energy bases). The firm is subjected to both directions in varying degrees in a way that becomes reflected in the performance of the firm. This depicts the related agencies as possessors of powers, with agentic capacities to influence action. In addition, the firm carries some internal organizational agency comprising the third performance arena: how the systems of coherence, generation and selection operate *within* the firm does have effects on performance

reflecting its instrumental capacity to exist and operate as a nexus of exchange and transformation. Performance in all these arenas may be featured by the varying positions along the dimensions of changeability, subjectibility and temporality. The very same “performance” has a different *meaning* in all these three arenas: a specific outcome means something for the entrepreneur in terms of her aspirations; something else for the firm regarding its ability to survive and meet its purpose of existence; and still something else for the environment exchanging inputs and outputs with the firm energized also by the aspirations residing in that domain.

The energizing source of the agentic behaviour of the firm comes from outside its boundaries, since in this study a *small firm is considered solely as an instrumental agency*. It is dependent on the “back” constituencies defining its purpose and providing some (initial) resources, and on the “front” environment affecting the rules and modes of operation and providing the resources for meeting its purpose.³⁴ For the firm, performance means changes in the resources³⁵ and behavioural sub-systems facilitating its existence and functioning as a vehicle for business, as a nexus of exchange and transformation for the aspirations and resources. These may have a firm-specific *changeability*: each of them as such, in bundles, and against others. A single resource may be critical for the firm’s ability to act and meet its purpose. The resources may have different *origins*: brought in by the entrepreneur (e.g. knowledge), constructed internally within the firm over time (e.g. competence), exchanged from the external markets (e.g. labour), or imitated from other firms (e.g. technology). Naturally they may carry diverse *temporal* orientations and endurances. The behavioural sub-systems of generation, selection and coherence may become featured along the same continuums with a reference to a specific strength and sequence of the operation of the three sub-systems. *The qualities of the two domains – resources and behavioural systems – carry a specific idiosyncratic “structural inheritance” at any moment of time, having differential causal powers on the instrumental capacities residing within the firm, and being subject to change along the course of action and time.*

³⁴ The traditional agency problem of separated ownership and management is not included in this study of the small firms. If wished to be included, it would change the setting in such a way that the firm would have some “own aspirations” as well, not just instrumental calls of the external ones.

³⁵ At this point it is necessary to discuss the concept of “resources”. Resources are tools used to fulfil various aspirations: natural, physical (man-made), financial, and human resources like knowledge and skills. In the literature, there is a vast diversity of resource conceptions. All these constructs are derived from the classical notions of *factors of production* (labour, capital and land, e.g. Warburton 1928, 65), but have grown to include a wider scope and an emphasis on the bundles of “services” (functions, activities; Penrose 1995, 25) they may provide. Especially the constructs including information and some organizational aspects tend to be bundled: competences (Selznick 1957, 139), routines (Nelson & Winter 1982, 16-17), capabilities (Teece et al. 1997, 516) or configurations (Miller 1987, 686). These are conceptually problematic as they include also varying amounts of behavioural elements and dispositions. This study sticks to the classical notion of resources, but in a broad sense. Resources (including information) are the “raw materials” capable of providing services through a combination of or a transformation that is facilitated by the behavioural systems. Resources and behavioural qualities together form a capacity to provide “services”, functions or activities. If desired, considering them together as “bundled” resources is not that wrong, when the analytical context is relevant for it.

Resources, behavioural sub-systems and performance may change along the actions energized by the external agencies meeting in this nexus of influence and exchange. Various patterns of “fits” may emerge between aspirations of the entrepreneur and the environment, and the output of the firm, reflecting performance as effectiveness. Also various kinds of resource-performance constellations may emerge reflecting differential performance as efficiency. The resource–performance interaction is *moderated* by the behavioural systems that maintain coherence (e.g. identity, continuity, control, coordination, relevance, sensibility), generate proposals for change (e.g. creative or imitative hypothetical “projects” or metaphoric patterns to respond to the various external aspirations), and select practical actions to be achieved (e.g. evaluation, contextualization, decision). Important aspects of the role of these processes may become conceptualized through, for example, routines (e.g. Lazaric & Raybaut 2005, 419; Nelson & Winter 1982, 16-17; Vroomen 2006, 559), administrative assessments and practices (e.g. Thompson 1967, 83-87), organizational cultures (e.g. Schein 2004, 17, 265-266) and leadership (e.g. Selznick 1957, 143, 149), also specifying the meaning and order of the actions.

For the firm, performance is driven by external aspirations and conditioned by the resources and behavioural systems to fulfil its instrumental purpose to exist and meet these in the three performance arenas: in the “back” arena of performance (toward the entrepreneur/owner), in the “front” arena of performance (toward the environment), and in the “internal” arena of performance (toward the technical, financial and organizational efficiency). For the firm, performance means changing its resources and behavioural systems, reflecting its instrumental capacities.

Performance Observation Point: The Environment

Finally, how should one comprehend performance having the *environment as the point of observation*? Agency as a power to generate action is energized by the individual and collective aspirations of the various actors residing in the “environment”. From the environment point of view, a specific firm under discussion is a potential vehicle for meeting some of the aspirations of this audience. The aspirations residing in the environment may be economic/physical (e.g. demand for goods and services), psychological (e.g. a desire of special identity) or social (e.g. a concern of shared safety). Miles and Snow (1978, 18) illustrate this landscape:

“... the environment is not a homogeneous entity but rather is composed of a complex combination of factors such as product and labor market conditions, industry customs and practises, governmental regulations, and relations with financial and raw material suppliers. Each of these factors tends to influence the organization in its own unique way: the behavior of certain environmental elements can be reliably predicted while that of others cannot; the impact of some conditions can be buffered while the impact of others cannot; and some factors are critical to the organization’s operations while others are only incidental.”

Consequently, the firm's interaction with the environment can be characterized by the continuums of changeability, subjectibility and temporality. The diversity of the individual and collective aspirations is the energizing source of agentic capacities residing in the environment, where the actors have individual (e.g. a consumer) and collective (e.g. an organization) resources to act upon them. For the environment, performance means, on the one hand, changes in the content of the "barrel of aspirations" as a consequence of the interaction with the particular firm under discussion. On the other hand, it also means changes in the resources and in the behavioural sub-systems of generation, selection and coherence along the actions responding on these aspirations.

The contents of the "barrel of aspirations" sited in the environment may have specific *changeability*: each of them and against others (and this may change at various levels of aggregation or bundling). The aspiration to acquire a particular product may exhibit a higher changeability among soap brands than an aspiration to acquire a particular health service in a needy situation. Laws reflecting the institutionalized environmental aspirations to regulate firm behaviours may require a lot of energy to change. The environment may "select" with varying strength and precision (Carroll 1993, 247). The aspirations may have different *origins* as seen from the environment: they may emerge from a socially constructed desire to possess a product, or become awakened by the commercial activities of the firm under discussion, for example. The aspirations residing in the environment may carry diverse *temporal* endurances and orientations: public subsidies may be granted to the old and obsolete or to the new and adolescent technologies, for example. The behavioural sub-systems of generation, selection and coherence may become featured along the same continuums with a reference to specific strength and sequence of the operation of the three sub-systems. *The qualities of these three dimensions – aspirations, resources and behavioural systems – all carry a specific idiosyncratic "structural inheritance" at any moment of time, having differential causal powers on the agentic capacities residing in the environment, and being subject to change along the course of action and time.*

Environmental aspirations and firm performance responding to them have an ongoing "debate" on what to do, how and why; both may change in this debate. Using the ideas of structural contingency thinking, various patterns and breaths of "fits" may emerge between the organizational actions and the "environmental" claims and offers: "*equilibrium*" (Walras 1954, 180-181), "*corridors of fitness*" (Jones 2005, 15), "*niches*" (Hannan et al. 2003, 312), "*strategic windows*" (Abell 1978, 21); "*internal and external fits*" (Miller 1992, 159; Venkatraman 1989, 438-439), "*archetypes*" (Greenwood & Hinings 1993, 1052; Miller & Friesen 1978, 921), "*configurations*" or "*gestalts*" or "*profiles*" (Miller 1986, 235-236; Miller 1987, 697-698; Miller 1996, 509; Pye 1993, 157). Logically, a firm serving the environmental aspirations well is acknowledged to perform well in this respect, which is often also reflected in the narrower conceptions of performance (e.g. Forte et al. 2000, 770; Ketchen 1997, 233; Venkatraman & Prescott 1990, 18). As evident from these concepts, the environmental aspirations have many words to manifest their importance for the firm. The environment ("structure" or context for the firm) changes along the interaction, taking place as an exchange of aspirations and resources. Only part of the environment surrounding the firm under discussion

is relevant for it, however.³⁶ The firm does not interact directly or indirectly with everything in the environment and *the agency of the environment is at least partly firm specific*.

The aspiration – performance interaction is *moderated* by the resources and the behavioural systems that maintain coherence (e.g. identity, continuity, control, coordination, relevance and sensibility at the individual and aggregated levels), generate proposals for change (e.g. creative or imitative hypothetical “projects” or metaphoric patterns to set up or respond to various rules, desires or concerns), and select practical actions to be completed (e.g. evaluation, contextualization, decision). Depending on the level of interaction and analysis, important aspects of the role of these processes may become conceptualized through, for example, individual habits and sensemaking practises, various institutions (North 2005, 66-70) and social practises (Bourdieu 1990, 86-87), also specifying the meaning and order of the actions.

For the environment, performance is driven by the aspirations (individual and collective) and conditioned by the resources (individual and collective) and behavioural systems (individual and collective), all affecting the interaction with a specific firm as a (potential) nexus of exchange. For the environment, performance means, on the one hand, changes in the contents of the “barrel of aspirations” as how they are met by the existence and activities of the (particular) firm, and on the other hand, changes of the resources and behavioural systems along this interaction, reflecting the agentic capacities residing in the environment. At the individual level, this capacity reflects the agentic capacity of an individual to act upon her aspirations (to the extent being related to the firm under discussion). At the organizational level, this capacity reflects the instrumental capacity of the organization to meet its purpose (to the extent being related to the firm under discussion). At the level of society, this capacity equals the institutional capacity of the society to contribute towards the collective aspirations of its members (to the extent being related to the firm under discussion).

³⁶ The part of the environment carrying agentic capacity on the specific firm under discussion may become conceptualized as the market (economics), culture and state (institutional view), niche (organizational ecology) or systemic context (complexity view), each conceptualization aiming to describe the “accessible” or “influential” part of the environment carrying varying forms of agentic powers or potentials in relation to the specific firm. The part of the environment with which interaction happens, has been called “surroundings” in thermodynamics (physics) and “Umwelt” in biology (cf. Kováč 2007, 66). Psychology acknowledges the relativity of psychological experience, the importance of the relationships with the significant others and the “mirrors of psyche” (Goldberg 2000, 136-137). Depending on the research needs, it may be important to distinguish between the potentially or actually influential part of the environment and the non-influential one.

2.3 Conclusion: Understanding Adaptation and Performance

So far, a draft of analytical structure for capturing adaptation and performance as *holistic* phenomena has been elaborated. Such is needed as the first step towards constructing a metatheory for the dynamics of the small firm world. The synthetic analytical structure may still be refined for that purpose by adding some useful ingredients. For this purpose, let us briefly review the state of art to date.

As adaptation is essentially a dynamic phenomenon, it is important to distinguish between the structures and the processes, and the flow of the energy and the causal powers. So far, we have distinguished the entrepreneur, the firm and the environment as *points of observation, and bases of resources and agency*. The entrepreneur, as well as the agencies residing in the environment, could become energized by various *aspirations*, whereas the small firm serves only these external aspirations as an instrumental nexus of exchange and transformation. The things exchanged as a response to the aspirations may include almost anything (products, services, factors of production, "profit", prestige etc.) depending what interaction is observed and whose aspirations are being served. In a dynamic setting, the resulting interaction to serve the various kinds of aspirations (rules, desires, concerns, needs) is conditioned by the resources and behavioural systems existing as a "structural inheritance", which is subject to change as a consequence of the actions in the future. Similarly, the aspirations may change as well. Observing time becomes essential, not only as *abstract time* of Newtonian clockwork, but also as *vital time* of the events and relations (cf. Avital 2000, 671). A specific "structural inheritance" of aspirations, resources and behavioural systems has a specific causal power, manifested in the agentic capacity. *This dynamic, relational phenomenon as a whole could be called adaptation. Performance captures its outcomes according to different points of observation.*

Performance could be observed from the three bases possessing agentic capacity: the entrepreneur, the small firm, and the environment. A single outcome has a different meaning for each of them, since performance means changes in the contents of their "barrels": in the individual "barrel of aspirations" of the entrepreneur, or in the "barrel of aspirations" of the single or collective actors of the environment. On the other hand, actions aimed at responding to the aspirations also change the resources and behavioural systems of the entrepreneur, the firm and the environment, embracing their agentic capacities for the future. Because also the aspirations may change along this, the firm may face a new landscape regarding the aspirations to be met and not only witnessing changed agentic capacities of the parties involved. *In a holistic conception, these two sides of performance – aspirations met and capacities changed – together comprise the new "structural inheritance" for the future. The differential causal powers of the agencies manifest themselves as "power fields" or "sequencing clocks" that trigger, moderate or prevent the evolving actions and help avoiding absolute relativism.*

Discussing this kind of a multidimensional, interactional setting easily becomes complicated if observed in detail. However, it also easily becomes a flat conception if observed without some detail. The basic entities involved, the main fields of causal powers, the vehicles of the interaction, and the outcomes of interaction

should be possible to observe. For this purpose, the analytical structure could be refined further to avoid it to remain too “diffuse notion as to include all possible sources of influence” (Giddens 1984, 234). Discussing adaptation and performance in between these extremes of “black-boxing” and “full colouring” with the ideas presented above sounds very much like discussing *co-evolution*. The ideas of co-evolution³⁷ could assist in refining the analytical structure as how the affected structures and the processes become bound into *cohesive wholes*.

Co-evolution refers to a setting, where some entities evolve in relation to their environments and, simultaneously, these environments evolve in relation to them as a mutually adaptive system³⁸ (Ehrlich & Raven 1964, 605; Lewin & Koza 2001, vii; Porter 2006, 492). Following Ehrlich and Raven (1964, 606), biological co-evolution takes place between closely linked organisms in a specific “*zone of interaction*”. As a broad concept, co-evolution is a manifestation of mutualism, which can take place at multiple levels of interaction (McKelvey 1997, 360) on the basis of a “*bidirectional causality linking the two parties in the relationship*” (Murmman 2003, 23). Mutualism in the loosest sense implies reciprocal beneficial relationships, but may reach a level of intensive coevolving association and development of the parties involved through direct exchange of goods and services, “*resulting in the acquisition of novel capabilities by at least one partner*” (Herre et al. 1999, 49). Our simple ants may have mutualistic interaction with a number of plants, insects and fungi, in which protection, transport and reduction of pathogen contamination is exchanged for food, for example (Oliver et al. 2008, 1597-1598). Co-evolution is based on interaction and possibly non-linear feedback (Baum & Singh 1994, 380). It may vary in form (competitive, neutral, co-operative), intensity and importance for the survival and success (or “evolution”) of the units involved. Over time, the quality of this relationship may change (e.g. from mutually beneficial to “parasitism”) or it may even disappear (by reverting to autonomy) between the specific entities (cf. Sachs & Simms 2006, 590).

In a co-evolutionary setting, the “thing” attaching the interacting units is the ultimate source of the impact. This bridging element can be very narrow or rather broad. However, there must be a selective factor that stimulates change in one unit, and is itself responsive to that evolution (Porter 2006, 482). The bridging element should be meaningful for the other entity in terms of performance, and be responsive itself to the generated performance feedback. Identification of relevant “zones of interaction” (“performance arenas”) and identification of forces and logics driving interaction and change within these zones are in the key focus of the co-evolutionary analysis.

³⁷ Regarding the selection–adaptation “paradox”, Volberda and Lewin (2003, 2111) made a firm forecast about the role of this concept in studying firms: “*It is altogether clear that empirical co-evolution research represents the next frontier for empirically resolving the adaptation selection debate.*”

³⁸ Co-evolution is originally a biological concept used to illustrate the evolution of species and ecosystems. Ehrlich and Raven (1964) studied the evolution of butterflies, their food plant choices and the evolution of those plants, and concluded (ibid., 606): “*Probably our most important overall conclusion is that the importance of reciprocal selective responses between ecologically closely linked organisms has been vastly underrated in considerations of the origins of organic diversity. Indeed, the plant-herbivore ‘interface’ may be the major zone of interaction responsible for generating terrestrial organic diversity.*”

In the sphere of philosophy, Hull's (1989) proposal for a replicator – interactor structure is useful for illustrating the situation in a more general setting. First, Hull (1989, 96) defines *replicators* as rather stable entities of transmission passing their structure largely intact in successive replications, like genes do in biology. They are subject to change in the interaction (“sex” or intercourse in various forms) and carry the partly individual and partly collective *behavioural codes*. Durham (1991, 189) has chosen meme as a “cultural gene” since “*whenever culture changes, some ideational unit is adopted and one or more homologous alternatives are not*”. In this conception, memes are something “internal” (genotypic) being able to create some “external” (phenotypic) consequences, observable and meaningful in the outside world (Dawkins 1982, 109; Durham 1991, 189; Weeks & Galunic 2003, 1344). In our framework, the various *agencies* as bundles of aspirations, resources and behavioural systems work like this: they may change and become adapted in the course of interaction; they may create specific “external” consequences; they are more “hidden” than exposed regarding their behavioural codes; and they have homologous behavioural alternatives within their specific “zones of interaction”. Various agencies stimulate change and are themselves subject to that change. The entrepreneurial agency and the small firm agency meet at the “back arena” of performance, and the small firm agency (essentially dominated by the entrepreneurial agency) and the environmental agency meet at the “front arena” of performance. Along the dynamics of the interaction, these replicators face differential changeability, subjectibility and temporality. Within each agency, this replicator role or function has strong links especially with the most stable behavioural sub-system of coherence. At least within the entrepreneurial agency, it may be placed in the most “hidden” part of the agency contributing to the identity, continuity and control of the various aspirations, resources and behaviours and favouring replication, inertia, and path-dependency.

Secondly, Hull's (1989, 96) general conception of the evolutionary explanation defines *interactors* as entities, which interact as cohesive wholes with their environment in a way causing differential replication. In biology, these are organisms like humans, animals and plants. In our framework, these could be something introduced as “cohesive wholes” by the agencies to fulfil the various aspirations. For the entrepreneur, this could be an action to set up a specific firm to meet some specific aspirations. For the firm, this could be an action to make a specific investment or to introduce a specific product, for example. These could be interactors in this framework. Because the scene is dynamic, I could call them *projects*, which have specific form and substance, changeability, subjectibility and temporality. These projects (interactors) operate in the battlefields of performance and affect agencies (replicators) through the outcome of the interaction. *Project is the vehicle*³⁹ *of the agency, the practical action directed towards the outside world as a*

³⁹ Dawkins (1982, 114) originally made a distinction between the “replicators” and the “vehicles”, which Hull replaced by the “interactor”. In a strictly biological world, “*a vehicle's success is measured by its capacity to propagate the replicators inside it*” (ibid., 114), but when applied in the social world, the metaphor may be more liberal.

manifestation of the agentic capacity. The aspirations, resources and qualities of the behavioural systems change as the projects of the various agencies have differential success. The fate of the projects (interactors) will cause a differential “replication success” for the agencies whose *aspirations* are served by them.⁴⁰ If the project served well in meeting the aspirations situated within its “zone of interaction”, it might bring in additional resources for its owner: the specific agency owning the project will have “replication success”. Regarding the agencies (replicators), these projects (interactors) have especially strong links with the systems of generation and selection as manifestations actual actions. *The projects are “phenotypically” exposed products of the “genotypically” more hidden agencies.*

This discussion of the evolutionary and co-evolution concepts will help us to refine the framework further by delineating the meaning of the “parts” subjected to interaction in the adaptation process, by clarifying the *context* where the “replicators” (agencies) and “interactors” (projects) work out the performance within the “zones of interaction”. Even though many things are related, not everything interacts. Applying the entitlement to and privilege of “disciplined imagination” authorized for a student, and abstracting from the hierarchically

⁴⁰ In biology, *replicators* are units that pass on their structure more or less intact over time (like genes in biology), but face differential replication as a consequence of interactors’ operation (like sex recombining genes in different ways). In biology, living organisms are the *interactors* competing for the resources, survival and replication success. In the sphere of anthropology, Durham (1991, 426) presented the system requirements of the evolutionary change, where replicators are the “units of transmission” (genes) and provide the “mechanisms of transmission” (reproduction or “sex”). In his view, interactors are the “sources of variation” (like gene mutation, recombination and migration in biology) and provide the “processes of transformation” (like gene-frequency change based on differential selection in biology). In his conception, “sources of isolation” are also needed when dealing with several populations. Durham builds on the evolutionary model by Campbell, who builds on Darwin’s (1859) original conceptions on variation, selection, reproduction and struggle as the generic forces of the evolutionary change.

In the spheres of economics and organization studies, the firms and other organizations have been labelled as interactors, and habits (of individuals) and routines (of groups or organizations) as replicators (Aldrich & Ruef 2006, 28-30; Dosi et al. 2000, 5; Hodgson & Knudsen 2004, 301-302; Nelson & Winter 1982, 134-135). The replicator of these evolutionary models comes close to the concept of “agentic capacity”, when considered as the “capability to undertake the activity” (Metcalfe 2005, 409), which is captured in our analytical structure by the aspirations, resources and behavioural systems. The interactor of the evolutionary models, in turn, comes close to the concept of “project” or “vehicle” as a cohesive unit, by which the external world is contacted, accessed, explored or engaged for exchange. In all the evolutionary conceptions, “performance” is based on the interplay of the evolutionary forces driving a differential fitness-based selection of the units of interaction. In the biological conceptions, the variation is blind, whereas in the social conceptions it may be also intentional (cf. Aldrich & Ruef 2006, 18). Also the identity of the replicators is more flexible than that of a gene, but meets the frontier of “sameness” and “otherness” in some point, e.g. after a significant growth or administrative differentiation (Durand & Calori 2006, 99; Metcalfe 2005, 410). Also here, a warning is made of the potential confusions arising from any too strict adoption of the analogue of the genetic microevolution, which “is, after all, only one specific example of evolutionary process” (Durham 1991, 426). The general metaphor can become specified in different ways.

related ideas, the “parts” may be placed on the “back stage” and “front stage”, bearing also to their visibility and accessibility to other actors (Figure 14).⁴¹

The entrepreneur, while exposing part of her aspirations (her “front”), accesses her firm through its “backdoor” (firm’s “back”) to perform in the interaction with the environment on the “front” arena (firm’s and environment’s “front”), but not interacting with or comprehending all of the complexity of the aspirations, resources and behavioural systems of the environment (environment’s “back”). The borderlines are “separating walls”, but they may have varying qualities along the dimensions of changeability, subjectibility and temporality. *This setting illustrates that there are hierarchies in the reality and that interaction of the entities is often partial, focused and contextual rather than universalistic.*⁴²

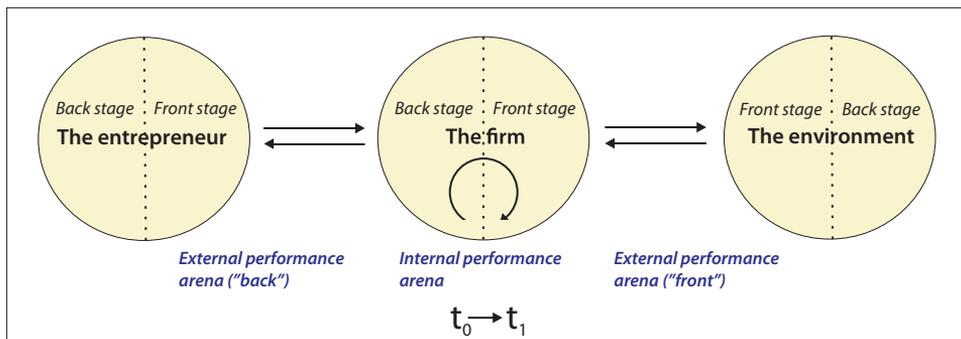


FIGURE 14 Adaptation and Performance in a Hierarchical Setting: The Entrepreneur, the Firm and the Environment, With Back and Front Stages, and Three Performance Arenas

Goffman (1959) originally introduced the stage metaphor in order to capture the *context* of impression management in sociology (ibid., 15), but the rich content of the metaphor may help to clarify the context of the interactive relationships in a more general framework as well. The *performances* of this metaphor are constructed of routines or parts (ibid., 16) by the teams (ibid., 79), and become prepared and practised on the back stage hidden from the audience (ibid., 112); they need a rather stable *setting* (ibid., 22) and some *personal front* of the performer (appearance and manner; ibid., 24). Performance in the front stage means a fixed presentation, which asks for some degree of credibility as an “offer” against the beliefs of the audience (ibid., 17) to be successful. Depending on the situation, the roles may change and different performances may become played in the same setting (ibid.,

⁴¹ Originally, the conception was introduced as a sociological construct by Erving Goffman (1959) in his book “The Presentation of Self in Everyday Life”, dealing with the human behaviour in social situations and employing this dramaturgical or theatrical performance metaphor as a framework.

⁴² This also comes close to the notions of the complexity view, illustrating and explaining systemic and dynamic properties of the living systems, featured by “self-renewal, construction of order from energy, self-organization, coevolution with the environment, nonlinearity, emergence, and the idiosyncratic desires, norms, preferences, and realities of humans” (Dooley 2004, 354).

27), and various defensive or offensive techniques may become applied in the management of the impression (ibid., 212). Three roles may be distinguished: those who perform, those performed to (the audience), and outsiders (ibid., 144).

Boundaries are important for the success of the performance, since part of the information may be disruptive for the “required expressive coherence of the reality that is dramatized by a performance” (Goffman 1959, 141). This brings various kinds of “secrets” into existence (dark, strategic, inside, entrusted, and free; ibid., 141-143). *Performers* appear in the front and back regions and possess potentially destructive information, *audiences* in the front only know what they have been allowed to perceive, and *outsiders* not observing the show know neither the secrets of the performance nor the appearance of the reality fostered by the show (ibid., 144-145). Thus, the function, the information accessible, and the region (back, front, outside) have a relationship, which may be versatile in congruence (ibid., 145). Furthermore, four additional roles are defined that have access to an “unexpected” region they should not be allowed (e.g. to see behind the front) and access to information they should not have: “service specialist”, “confidant”, “colleague” and “weak audience” (ibid., 153-166).

For the successful performance, the existence of various “regions” defined by the boundaries is of crucial importance (Goffman 1959, 113-114):

“Since the vital secrets of a show are visible backstage and since performers behave out of character while there, it is natural to expect that passage from the front to the back region will be kept closed to members of the audience or that the entire back region will be kept hidden from them ... Obviously, control of backstage plays a significant role in the process of ‘work control’ whereby individuals attempt to buffer themselves from the deterministic demands that surround them.”

Coming back to the analytical structure under elaboration, the metaphor may help to frame the emergence and management of the “projects”. *Boundaries are needed for the deliberation and control. In our framework, the boundaries are needed around the “barrels” to store the aspirations, resources and behavioural systems to make exercise of the agency possible* (cf. Casson 2003, 49; Rumelt 1987, 145-148; Yu 2001c, 186). The boundaries between the stages reflect rather the degree of a changing visibility, opacity, fuzziness, accessibility, control and related qualities than any fixed “iron cage”. The back stage – front stage setting looks as a feasible metaconjecture, connecting “two sides of the same coin” and leaving room for the agency to operate on two different kinds of stages with different accessibility, functional and informational contents and qualities. It gives initial rigour for the framework of the business-related interaction between the entrepreneur, the firm,

and the environment. Especially, *the behavioural systems of the three bases of agency are differently exposed and accessible.*⁴³

By adding these ideas to the elements defined earlier – the three resource bases possessing agentic capacities and serving as the points of observation, and the project as a general notion for the vehicle set up by an agency to meet the aspirations through transformation and exchange in the performance arenas – the general analytical structure for adaptation and performance becomes clear (Figure 15). It has been constructed by fusing topic-relevant ingredients from the organization science, strategic management, economics, biology, sociology, psychology, anthropology, dramaturgy and philosophy. It “grey-boxes” the important structures and processes of adaptation and performance, and makes it possible to construct bridges towards more general ideas and approaches (say, paradigms) and toward more detailed theories and contextual studies. *It should make it possible to move towards more universal or more local, particular explanations, or to study what level of understanding might be appropriate for the phenomena under study.*⁴⁴

⁴³ The question of the *boundaries* is very important and very contradictory in the social scientific debate. The conflationist paradigm of the postmodernist thinking calls to “collapse agency and structure into social practises” (Reed 1997, 24), strongly emphasizing the consequences of speaking and thinking (Fleetwood 2005, 206) and asking for representationalist methodologies (Gergen 1992, 213-214; Chia 1996, 49; Cox & Hassard 2005, 123). The explanation searched for is local rather than universal. The one-level conception makes it difficult to include agency as a *differentially* capable motor of change, depending on its *relative position* to the context or “structure” in terms of power, control and legitimacy. Institutional theory (e.g. Oliver 1991, 147; Zucker 1987, 447-448) and structuration theory (e.g. Giddens 1993, 165-166; Giddens 1984, 15-16) discuss this problem. The reductionist paradigm of functionalist thinking goes to the other extreme by setting up clear boundaries between the internal and external worlds in the mostly one-directional studies of how the former adapts to the latter (e.g. Donaldson 1996, 19-20). The explanation searched for is universal rather than local.

In realist thinking, the boundaries are confessed by the existence of different levels, powers and their varying generative and constraining effects (Archer 1995, 159). Structures, as well as those subjected to them, can operate as “generative mechanisms” having “causal powers” (Archer 2000, 307; Bhaskar 1978, 14): the human agency and any external structure (e.g. institution) are interdependent but distinct (Barley & Tolbert 1997, 99; Bhaskar 1986, 123-124). An individual actor may contribute to the emergence and modification of several kinds of “structures”, but is itself subject to their constraining and enabling effects, even if they were much of one’s own produce (like a one-man’s firm). For example, a purpose of action, based on the anticipated consequences, may become rejected (or resisted) at the level of the system (like the institutions or the markets), but not at the level of its component actors (like the entrepreneur or the firm; see Coleman 1986, 1312). Methodologically, this asks for analytical dualism to capture their interplay (Reed 1997, 31). How strict, precise and important these interdependencies are for the explanation and prediction is another question (that can be thought as continuums). It is also often that the structure (e.g. institution) constrains action synchronically, whereas action constitutes (replicates or revises) structure (e.g. institution) diachronically (Barley & Tolbert 1997, 100), why observing *temporality* is very important while working with the boundaries between the entities and levels of interaction.

⁴⁴ In this regard, the universal, mechanical explanation provided by the conventional economics aiming for “artificial naturalism”, and the local, reflexive explanation provided by the conflationist approaches in social sciences, are both special cases. The framework allows for cross-level inferences or multi-level analyses (cf. Ashmos & Huber 1987, 614-615).

Looking at the selection *versus* adaptation discussion with this analytical structure at hand, their distinction as *the general epistemological foundation* for the analysis seems irrelevant. Rather than claiming primacy for the role of *survival* by contingent adaptation, *power* to serve teleological ends or *meaning* enacted through signification systems (Fombrun 1986, 405), it is their varying roles captured by the continuums of *changeability*, *subjectibility* and *temporality* that may provide a tool for accumulating *multidimensional understanding* of adaptation and performance as efficiency in exchange and transformation or as effectiveness in meeting various aspirations. The simple analytical structure for the complex phenomena (cf. Smith-Lovin 2000, 301) itself resembles *analytical dualism* as a general methodology (cf. Willmott 2000, 67) for studying the interaction. In this effort, practical actions should be distinguished from thoughts, and located in time and space. To be observed as performance in this world, practical actions are needed. The three domains may collect the performance outcomes of the action, and the change of the whole systems features adaptation. The analytical structure is comprehensive enough to capture the divergent domains and their interactions, making it possible to avoid paradigm prisons. In reality, paradoxes do not exist. They exist only in the minds of the observers and sense-makers inclined to look at the reality between the bars of their paradigmatic cells. With these ideas and the accompanying analytical structure as a starting point, we are ready to take a closer look at the small firm world.

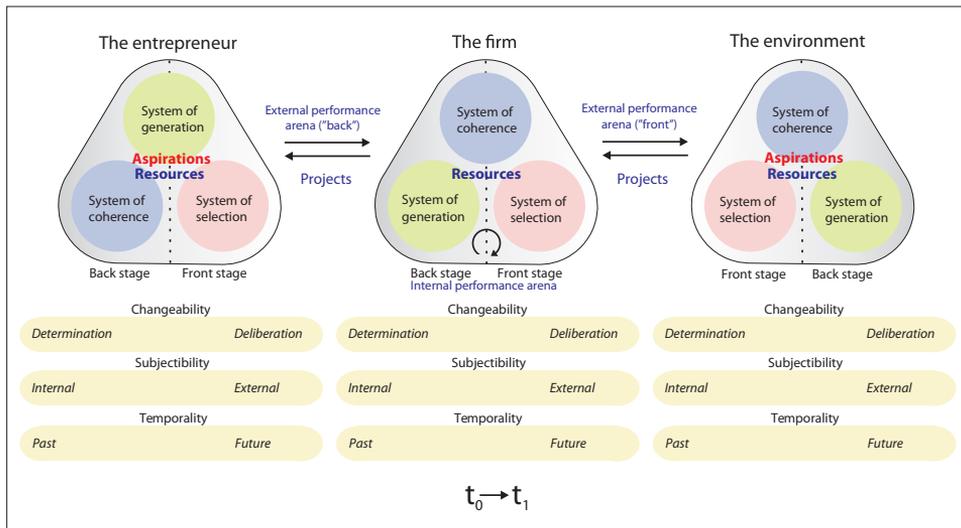


FIGURE 15 A General Framework for Studying Adaptation and Performance of the Entrepreneur, the Firm, and the Environment

3 THE SMALL FIRM WORLD

It is illuminating to open this multiparadigm review with a grasp of a garden containing a vast diversity of adaptation and performance processes which were discussed in the previous chapter. Biological populations and typologies of nature may provide a practical and an analogous track record for the two themes discussed in the sphere of the social, "artificial" life. Ernst Mayr's (1976, 20-22) illustration of the "kinds of living systems" below makes a point, which is to be discussed in this chapter as the next step toward a comprehensive framework for analyzing and understanding the dynamics of the small firm world. In this preliminary discussion, one just has to replace words like "species" or "individuals" with "firms", and one is already en route to understanding the issue at stake.

"... explain why there should be such an enormous variety of life on earth ... Two species, in order to coexist, must differ in their utilization of the resources of the environment in a way that reduces competition. During speciation there is a strong selective premium on becoming different from pre-existing species by trying out new ecological niches. This experimentation in new adaptations and new specializations is the principal evolutionary significance of the process of speciation. Once in a long while one of these new species finds the door to a whole new adaptive kingdom ... Once a species discovers an empty adaptive zone, it can speciate and radiate until this zone is filled by its descendants.

To avoid competition, organisms can diverge in numerous ways, for instance in size. Even though there is a general trend toward large size in evolution, some species and genera, often in the same lines as large species and genera, have evolved toward decreased size. Small size is by no means always a primitive trait.

Specialization for a very narrow niche is perhaps the most common evolutionary trend. This is the characteristic approach of the parasites. Literally thousands of parasites are restricted to a single host, indeed restricted to a small part of the body of the host.

... The counterpart of the specialist is the generalist. Individuals of such species have a broad tolerance to all sorts of variations of climate, habitat, and food. It seems difficult to become a successful generalist, but the very few species that can be thus classified are widespread and abundant ... There are indications that generalists have unusually diversified gene pools and, as a result, produce a rather high numbers of inferior genotypes by genetic recombination ... Yet, whether continuous or discontinuous, genetic variation has long been recognized as a useful device by which a species can

broaden its tolerance and enlarge its niche. That the same is true for man is frequently forgotten ... Genetically different individuals do not have equal opportunities unless the environment is diversified.

Every increase in the diversity of the environment during the history of the world has resulted in a veritable burst of speciation ... The insects, whose history goes back to the Paleozoic nearly 400 million years ago, did not really become a great success until the flowering plants (angiosperms) evolved some 150 million years ago. These plants provided such an abundance of new adaptive zones and niches that the insects entered a truly explosive stage in their evolution. By now three quarters of the known species of animals are insects, and their total number (including undiscovered species) is estimated to be as high as 2 or 3 million."

3.1 The Concept of "Small Firm"

Mayr's text tells a number of interesting aspects of biological evolution, some of which may be feasible for social phenomena. Most of all, *in order to co-exist as a species with another species in a shared environment, one should utilize the (limited) resources in a different way reducing competition: otherwise one or the other might have to go the way of the dodo-bird.* The logic of biological evolution tells a primitive story of survival and reproductive success. The "replicators" of social life may serve much more diversified ends than the genes in biological life: aspirations, resources and behavioural dispositions of the various agencies may be voluntarily changed, given up and reactivated – a flexibility which does not exist in biological life! But the evolutionary pressure for being different in the resource use is still relevant, if there is a shared environment (e.g. market) with limited resources. If so, we are left with the key questions: do small firms share the *same environment* with large firms?, and are small firms *specific in resource use*?

Many, indeed, consider small firms to be a distinct species among firms.⁴⁵ "A small business is not a little big business", state Welsh and White (1981, 18). The caterpillar – butterfly remark made by Penrose (1995, 19) is also widely recognised:

"The differences in the administrative structure of the very small and the very large firms are so great that in many ways it is hard to see that the two species are of the same genus ... we cannot define a caterpillar and then use the same definition for a butterfly."

Apart from functional and administrative aspects, Penrose's notion of the dissimilarity of the resource environment is "biological": large firms can never fully exploit all potential business opportunities, because their resources and growth *rate* are limited as they tend to utilize economies of scale by limiting their growth to activities which yield the greatest comparative advantage, why there is room also for *entrepreneurial small firms* (Penrose 1995, 222, 261). Penrose called

⁴⁵ Biologists have struggled for a long time with numerous species. A species is often defined in terms of capability for interbreeding with fertile offspring, but as exceptions exist (for example the mule), a number of other definitions co-exist (e.g. sharing a common ancestor, having morphological or genetic similarity). The levels of taxonomic hierarchies also help in this: life, domain, kingdom, phylum, class, order, family, genus, species, (subspecies).

these opportunities “interstices” (ibid., 222). These opportunities are generally limited (ibid., 215), and Penrose regards them as unpromising “blind alleys” (ibid., 221).⁴⁶ However, Penrose reserves that, “*prospective entrepreneurs with considerable financial resources ... with unusual ability, original ideas, and considerable versatility have a wider choice of activity than does the ‘average’ citizen*”, (ibid., 222). In biological terms, Penrose means that small firms generally occupy specific kinds of niches left unoccupied by large firms, and *do not share the same environment*. Along this logic, small firms have a solid place in the habitat of business vehicles. As some of the small firms grow large, new niches open up for the new small firms, and so the dynamics continue.

A Distinct Species with a Flexible Phenotype, or Just Variation?

The case of occupying an isolated niche is a clear one, when it happens. But is it a rule or just one potential situation? Small firms are seemingly very different from large ones, but are they a distinct “species”? The biological analogue throws a dark brand of a “parasite” over the most common small species, but on which kinds of relationships is the survival and success (performance) of small firms based? Is the success of this species based on being a specialist or a generalist, or on the ability to change the use of resources flexibly according to the environmental demands and offerings? The “phenotypic” difference of small firms as against large ones is obvious, but how about the “genes” – where do the less exposed differences lie? Are these less obvious specific characteristics changeable, by what kinds of things are they subjected to, and what kind of endurance and temporal character might they have? What is there at the “backstage”? And if the environment is about to become more diversified, as many claim (e.g. Bettis & Hitt 1995, 16), could small firms as a “species” expect a similar burst of evolution through speciation and radiation as small insects some 150 million years ago?

“A small firm” appears to be an ontologically sound concept, but difficult to grasp epistemologically and methodologically. “Small” is intuitively clear, but difficult to precise.⁴⁷ This has made it painful to define the “species of small

⁴⁶ This connotation comes close to Mayr’s remark regarding parasites, but Penrose dealt with industrial firms in the first half of the 20th century. Observing the contemporary diversity of small firms, one may find lots of small firms in highly profitable industries and “interstices”.

⁴⁷ This probably has to do with the tendency of the human mind to work with *pattern recognition* as discussed in psychology. Recognition occurs when perceived information becomes categorized and the synthesized patterns are discriminated by a re-entry (“representational redescription”) within some mental frames (or the “dynamic core”) conforming to the coherence and unity of the consciousness (Clark & Karmiloff-Smith 1993, 488, 509; Donald 2001, 322-323; Edelman & Tonini 2000, 25, 49, 167). Then, in this connectionist view of the consciousness, “small” is distinguished from “big” through identification of a pattern that the observer has learned to become connected to this quality in earlier mental processes, and this conscious state becomes exclusive “in the core” at that moment through selective differentiation, attaching a meaning to this “quale” (Edelman & Tonini 2000, 168). This process is sensitive to purpose and culture, and the linguistic outlays attached to “small” are reflections of the deeper processes of the mind where “*language floats on the surface of a very deep cognitive ocean*” (Donald 2001, 323). Even the neurosciences would propose that being “small” is not an absolutely fixed quality.

firms". *Specificity* of small firms has a solid status in business research, but it suffers from "mythical concepts" (Gibb 2000, 14) and rigidity caused by the "fixed or slow moving paradigms of traditional disciplines" (ibid., 32).⁴⁸ These seem to arise from categorical size-based (employment, sales) definitions, which tend to result in "false homogeneity": if it was just size that was different, then many other things (e.g. organizational and labour problems) should indicate homogeneity rather than differences with large firms (Curran & Burrows 1993, 180). There is also a tautological element advocating herself: small firms are small because they are small. Do they indeed have something specific beyond their small size?

Although a firm view exists that "there is no definite demarcation line between 'small and medium-sized' and 'large'" firms (Van Hoorn 1979, 87), there have been numerous attempts to place it somewhere. Talking about a "species" demands a typologist's mindset. In this era, the small firm has become labelled with several traits characterizing just this "species". D'Amboise and Muldowney (1988, 231), Miller and Toulouse (1986, 47-48) and Van Hoorn (1979, 85) refer to characteristics such as, prime role played by the owner-manager, simple organizational structure, serving essentially local markets, an implicit rather than explicit strategy, and a low level of planning and control. The Bolton Report (Bolton 1971, 1) looked into the markets, personal influence and independence in search for a definition: being small in relation to one's markets, being owner-managed in a "personalised way" and independently from outside control means being a small firm. Julien's (1993, 158) small business concept is featured by small size, centralized management, intuitive and short-term strategy, low level of internal specialization, simple and informal information systems (internal and external), and local markets. Brooksbank (1991, 30) pulls the definition to an extreme by a single product strategy, which appears unrealistic. Torrès and Julien (2005, 363) introduce an "anti-small business concept", where a small-sized firm may exhibit large firm characteristics (e.g. high level of labour specialization) except for the size. They propose this miniature model of a big business to be a logical choice for the "baby big businesses" operating on the global markets. At the changeability dimension, some also posit that small firms cannot change their environment but have to

⁴⁸ Gibb (2000, 14) goes further and argues that, despite the expansion of research in the area of small firms, it is ignorance rather than understanding that has increased due to myths and mythical concepts (like start-up failure or high-tech growth), which have replaced the goal of having more appropriate frameworks for understanding the small firms world. In Gibb's view (ibid., 20), some constellations common in the small business research are even tautological: "For example, 'innovative firms' are described as firms: developing new products; entering new markets; making management changes; using new technology; and in general changing their way in which things are done. On the basis of these assumptions, samples of firms are tested for the relationship between growth in employment, turnover and profit. It is scarcely surprising that statistical associations are found, for it would be remarkable if firms who were growing were not developing their markets, changing their management organisation, changing their systems and so on! Such work says little about causality or about process that might be useful to practitioners. It also adds little to theory."

adapt to it (e.g. Bridge et al. 2003, 222; Deeks 1976, 237-238; Shepherd & Wiklund 2005, 6).

All these conceptions, and many others, are based on the idea that firm size – generally measured in terms of employment or sales – is related to some of the specific structural, functional or behavioural traits listed above. Evidently, there is no consensus on the universal *definition* of a small firm even though there is a common idea of the *specificity* of a small firm (Brooksbank 1991, 17; McCartan-Quinn & Carson 2003, 201; Torrres & Julien 2005, 362; Verhees & Meulenbergh 2004, 136-137). The small firm very much appears as a distinct “species”, but its distinctiveness appears vague in terms of structures, functions and behaviours, besides the quality of just being small in size. Consequently, small firm researchers have been criticized for the lack of theoretical development of their subject matter beyond placing arbitrary boundaries and looking what was it that was caught by the attempt (cf. Storey 1994, 5).

Populationist’s mindset could alleviate the typologist’s pain with vagueness. The search for similarity becomes a difficult job at some point in finding a homogenous “ideal type” for a certain species. Even biological species are not immutable and fixed: their members have differential gene pools and potential for changing over time through mutation and genetic recombination. Despite this possibility, an ant may remain small over a considerable time. In the nature, those individuals and species inclined to use environmental resources in a different way may become favoured (or not) by their environment and their share in the population of that environment will increase (or decrease). Over time, this system of natural selection will impact on how a certain species develops, and what species will survive and flourish. If a specific small firm – not bound to that fixed appearance as the ant – was favoured like this in the evolutionary struggle among alternative business vehicles, it either would grow out of its size-based category (of being small) or occupy a very large share of the business environment. As such, *the more enduring performance implication of being specific arises from being specific in relation to the population utilizing shared resources, or being isolated from the direct competition in the resource use. In this sense, the phenotypic homogeneity maintained by being a distinct species is of secondary importance, since the code for survival and success lies in the heterogeneity of the ability to utilize resources, and the variation in this ability is only partly captured by the apparent homology of a “species”.* The species may be a carrier of those specific resource utilization abilities over time as a depository of somewhat specific replicator pools. Small firm species has existed within the genus of firms much longer than any single firm, which is why “heredity” is also present. *The ability to utilize competed resources distinctively and/or the ability to utilize isolated resources will make an enduring difference of the small firm “species”.*

Changeability in the social phenomena is so much easier and quicker than in biological life that working with the borderlines of exact “species” is even more challenging, if not unproductive. In nature, the *boundaries* of any species are changeable, subjected by the fit between the use and the availability of resources in an environment, resulting in a varying temporality of the change driven by the varying selection pressures. Species are somewhat homogenous sets of gene pools in the evolutionary test of the biological environment, which is always limited in

supply of resources for exploitation.⁴⁹ Adding the easier changeability, the more varied subjectibility (internal deliberation *and* external determination) and the quicker temporality of the variables defining a “species” in the social world, the question of a distinct species becomes more of a methodological concern than an epistemological matter. If the size was of interest, the boundary has to be put somewhere on the basis of the structure, functions, behaviour or some quality in a sensible way at the time and place of the inquiry. Being different is a continuum. Specific size can imply specific traits on several continuums, but as a bundle within a “distinct species” they carry evolutionary relevance only through a differential performance in “the struggle for life” – or rather, “aspirations” (Figure 16). Perhaps the original idea of distinctiveness of the species by Darwin (1859, 51-52) was actually more appropriate for the social than for the biological life:

“And I look at varieties which are in any degree more distinct and permanent, as steps leading to more strongly marked and more permanent varieties; and at these latter, as leading to sub-species, and to species ... I attribute the passage of a variety, from one state in which it differs very slightly from its parent to one in which it differs more, to the action of natural selection in accumulating ... differences of structure in certain defined directions ... I look at the term species, as one arbitrarily given for the sake of convenience to a set of individuals closely resembling each other, and that it does not essentially differ from the term variety, which is given to less distinct and more fluctuating forms. The term variety, again, in comparison with mere individual difference, is also applied arbitrarily, and for mere convenience sake.”

The enduring specificity of the small firm as a “species”, in fact, seems to relate at least to its relationship with the environment. When small firms exist widely and survive over generations, they must live in seggregated environments as compared to large firms, or they must be “genetically different”, or both. The inquiry will proceed by the environment and the small firm.

⁴⁹ This keeps with the Malthusian idea that a biological population always tends to grow at a faster rate than the resources of the environment (at that time, food). In economic life, this scarcity is assumed by the endless needs of greedy humans, generating new ones as soon as the existing ones have become satisfied. As a result, there is a struggle for life (in the biological world), or a struggle for life of aspirations (in the social world). If there were no competing aspirations generated by the physiological needs, social networks or rich imagination, there would be no selection pressures or selection problems, and things would run as they are (habitualization) or along one rail.

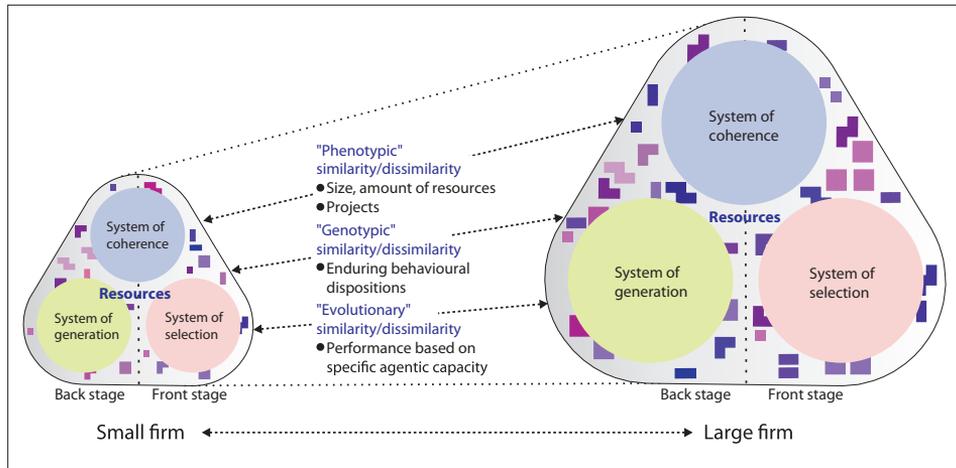


FIGURE 16 Alternatives and Arbitrariness of Defining the “Species” of the Small Firm along the Continuum of Firm Size

3.2 The Environment and the Small Firm

The small firm maintains a boundary against the environment. But should the environment be seen as an affording or constraining element from the small firm’s point of view? Can we distill some ideas of the contents of the “genetic” specificity of small firms by elaborating on this relationship and by sharpening our analytical tools?

Evidently, the environment with its *aspirations, resources and behavioural systems* is of crucial importance to small firms. It is, however, not just this “*structural inheritance*” or “*habitat*” (e.g. Cassia et al. 2006, 64) which matters, but also the way it is perceived and the way it interacts with in arriving (or not) to a “fit” which allows (or not) an exchange of resources. Essentially the environment provides a specific “*fitness landscape*” (Kauffman 1993, 40; McCarthy 2004, 128) for small firm actions and tenders. Small firms, however, interact only with some parts of the environment, while part of the environment remains truly external (Child 1972, 9).⁵⁰ Consequently, only some aspects of the environment may be relevant for the survival and success of small firms, but due to uncertainty, these contingencies may not be known with *ex ante* certainty.

⁵⁰ Emery and Trist (1965, 22) make a distinction between the internal interdependencies within an organization, transactional interdependencies between the organization and the environment, and “*the area of interdependencies that belong within the environment itself*” as a causal texture. Concomitantly, a *general environment* (affecting all organizations) as technological, legal, political, economic, demographic, ecological and cultural conditions, may be distinguished from a *specific environment* as the external entities having a higher degree of immediate relevance for the organization and direct interaction with it (Hall 1972, 298). Thompson’s (1967, 27-28) *task environment* – different for each organization and relevant for the exchange – corresponds to the specific environment. Acknowledging relationships with and within the environment features socio-ecological epistemology which is widely used in action research (e.g. Gloster 2000, 672).

The ability to extract resources from the constituencies of the environment (“capitalists”, customers, suppliers, informants etc.) by meeting their aspirations and acknowledging their behaviours is undeniable for the survival and success of small firms in the long run, which is why the “environment” has traditionally been widely referred to in studies of small firms suffering from “resource poverty” (Baker & Nelson 2005, 329; Woo et al. 1994, 516). Miller (1987, 689) concludes: “*The environmental imperative is likely to apply when firms are small relative to competitors and when they have few slack resources*”. From the small firm point of view, the environment is a resource base with which a “fit”⁵¹ is to be found either by occupying a niche (new isolation of resource use) or by introducing a competitive tender (new combination of resources) to serve aspirations not served by other projects. Occupying a niche means being new and different in space, adding another important dimension to the analytical structure. The outcome depends on the qualities of the project and the qualities of the environment, and how they interact in *time* and *space*. Analytically, the environment and the interaction exhibit specific changeability, subjectibility and temporality (Figure 17).

How an appropriate “fit” between the contingencies of the environment and the small firm projects becomes established and maintained, is key to understanding small firm specificity. Traditionally, environmental determinism has been the focal point in studying small firms and their projects with economic (neo-classical) or ecological mind-sets, especially (Alchian 1950, 215; Astley & Van de Ven 1983, 247; Bourgeois 1984, 586; Hannan & Freeman 1977, 960; Hrebiniak & Joyce 1985, 339; Whittington 1988, 524, Yasai-Ardekani 1986, 9). Consequently, the project should meet the deterministic demands of the environment by occupying a niche “waiting out there” as a structural hole in the competitive landscape. The environment may “select” or “accept” or “facilitate” only particular types of projects (c.f. Aldrich 1979, 108). At the other extreme, there could be deliberation in selecting an appropriate environment for the project (Child 1997, 53) or possibilities to manipulate the environment through various forms of interaction (Miles & Snow 1978, 255; Weick 1979, 177). The factors defining the case for an appropriate “fit” which allows exchange between the small firm project and the environment may vary a lot.

⁵¹ “Fit” is the key construct of *strategy* (Bowman et al. 2002, 35-37; Porter 1996, 75). “Fit” has been extensively studied within the strategic management school, but mainly concerning the efforts of large firms to find and maintain a “fit” between the internal configuration and the external environment (e.g. Andrews 1971, 80; Ansoff 1979, 9; Chandler 1962, 383; Hofer & Schendel 1978, 4; Milgrom & Roberts 1995, 205; Miller 1992, 159; Nag et al. 2009, 943; Venkatraman & Camillus 1984, 514). Broader views may employ the concept of coalignment (Venkatraman & Prescott 1990, 3). As the project by the entrepreneur is essentially a strategic project preceeded by a strategic choice, the concept of “fit” between all the relevant components is very feasible also in our investigation. Andrews (1971, 38) illustrates it’s important role: “*The ability to identify the four components of strategy – (1) market opportunity, (2) corporate competence and resources, (3) personal values and aspirations, and (4) acknowledged obligations to segments of society other than stockholders – is nothing compared to the art of reconciling their implications in a final choice of purpose.*” Also diverse qualities of “fits” may be observed – optimal, above specific thresholds, or enduring over specific periods, for example – when their static vs. dynamic nature (Venkatraman & Camillus 1984, 520-521), specificity (between which and how many elements) and anchoring (in relation to which criteria) become studied (Venkatraman 1989, 424).

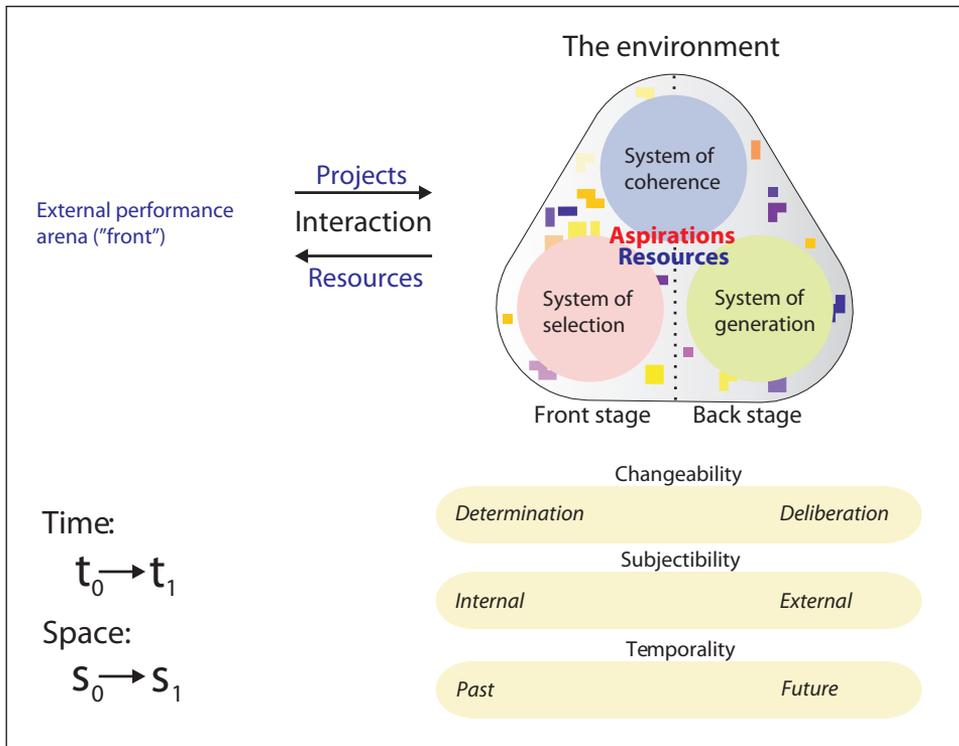


FIGURE 17 The Role of the Environment

Dimensions, Constellations and Processes of "Fit"

To what extent and in which ways the environment affords and/or constrains a small firm project in establishing and maintaining this "fit" has been comprehended by, for example, the dimensions of munificence, complexity, stability and (partly overlapping with the previous ones) uncertainty. More substantive structures and forces behind these qualities may include things such as competition, technology, various normative institutions etc.

Munificence means abundance or scarcity of critical resources available (Castrogiovanni 1991, 542), and this logically affects the types of projects a specific environment may carry and how much resources the projects may extract. *Complexity* reflects numbers and qualities of the elements and relationships in the "system" of the environment – not just being numerous in their numbers, but also being specifically interrelated (connectivity) and being specifically linked (linear, non-linear, dynamic; functionality) to each other thereby comprising the full picture of complexity (Milling 2002, 85). If the relationships are non-linear, they may result in large-scale effects from small-scale initial inputs (Ormerod 1998, 5; Stacey 1995, 481), which may make the cumulative effects of various "pathways" for the projects potentially very different, *if could be foreseen* (Thiétart & Forgues 1995, 21).

Managing a project in this kind of a complex system implies that all qualities of the whole system are not known (Dooley 2004, 357), exposing the management of the project to “availability bias” through attributing information that is easily available (Taylor 1982, 191-192; Tversky & Kahneman 1973, 208), and being actually stuck in various “sub-worlds” inside the complex systems. In any case, complexity makes the search of information, its subjective interpretation and experimental learning necessary (Allen et al. 2007, 404; Levinthal 2000, 369). The rate of experimentation needed to survive and succeed is related to the rate at which new dimensions (technologies, markets etc.) are emerging in the relevant environment (Allen 2005, 454). The ability to imagine, identify, crystallize, articulate and execute an achievable future direction or a path for the project, is accentuated as the environment becomes more complex (cf. Turner & Crawford 1994, 254):

“Pathfinding involves a mixture of search and creativity ... The paths that search reveals are only relevant to the extent that the organization is able to exploit them. This, in turn, depends to some degree on creativity in finding ways to exploit or reconfigure possibilities.”

Regarding *stability*, a stable environment would potentially allow a fine-grained mechanistic structure – allowing the specialization of and the utilization of efficiency gains from economies of scale – and a turbulent environment would demand a more flexible, organic structure for the project(s) in order to extract resources for a longer period (e.g. Burns & Stalker 1961, 119-121). Regarding *uncertainty* (of the qualities above; about self and others), more or less unanticipated problems may require creativity (Bhidé 2000, 200), commitment (Flores & Gray 2000, 22), learning abilities (Dosi et al. 2005, 280) and strategic flexibility (Sharfman & Dean 1997, 194) to keep contact with the changing contingencies of “fits” and, in general, may propose limited initial commitments or novelty to control the unavoidable risks (Sarasvathy 2001, 252; Shepherd et al. 2000, 406).⁵² In probing the environment, the “procedural uncertainty” by the entrepreneur meets the “fundamental uncertainty” by the causal texture (Emery & Trist 1965, 22). Uncertainty about the environment may concern its state, its effects and its response to actions (Milliken 1987, 136-138). Essentially, uncertainty is an information problem caused by complexity, ambiguity and unpredictability (Duncan 1972, 318; Tywoniak 2007, 56).

Depending on these and other characteristics of the environment, different positions may be found on how actors play and what kinds of projects become afforded by the environment in terms of “fit” between the aspirations, resources and behaviours. We may find, for example, “defenders”, “prospectors”, “analyzers” and “reactors” (Miles & Snow 1978, 29); “stable”, “reactive”, “anticipating”,

⁵² In conventional economic thought the risk caused by uncertainty is often considered as variation, because that view deals with the world of the existing, where variation of the earnings or their components may be reasonably observed (e.g. Fisher & Hall 1969, 82). The other strand of thought focuses on the risk caused by the commitment (e.g. Chatterjee et al. 2003, 63; March & Shapira 1982, 181). The first view focuses more on (external) outputs, the latter focusing more on (internal) inputs. There are so many points of observation for all things!

“exploring” and “creative” strategic behaviour (Ansoff 1979, 196); various ideal types of multidimensional configurations attaching the environment and the firm/project in a specific way (Miller 1987, 697; Miller & Friesen 1978, 933), and other kinds of typologized strategic (project) management modes. This mixture of dimensions and concepts aims to illustrate appropriate ways to cope with and control the various dimensions of the environment affording choices and placing constraints on the projects (Child 1997, 58). Along this effort, experience may accumulate in the form of “evolutionary intelligence” (Allen 2005, 453-454) or “evolutionary business knowledge” (Laszlo & Laszlo 2002, 401) in the behavioural systems of the owner of the small firm project.

Many of these typologizations reflect the multidimensionality of the environment, the many structural and behavioural contingencies to be met to allow initiation and continuation of the exchange of information and services. In some environments, only some dimensions may be relevant and some specific configurations for the projects may be found as “dominant designs” (Suárez & Utterback 1995, 420) in the aftermath of a competitive resource use or inhabitation of a specific niche with its requirements. These may reflect one kind of a punctuated equilibrium (Gould & Eldredge 1977, 145; Kirkpatrick 1982, 846; Romanelli & Tushman 1994, 1162) to be looked after by a “specialist”. In other environments, flexibility of the project could be the most important key for survival and success (e.g. Andries & Debackere 2007, 95; Power & Reid 2005, 439), when a small firm applies “*the broad thinking of a generalist*” (Welsh & White 1981, 32). Evidently, small firms are generally quite able to find these keys and therefore are able to occupy diverse niches by complying with their specific resource uses, observable in the huge diversity of the small firm population (cf. Nooteboom 1994, 344).

In all situations, the demarcation line between endogenous and exogenous plays an important role worth noting. Having an aspiration to introduce a small firm project in some environment asks for “*strategic sensemaking*” through scanning and interpretation (Thomas et al. 1993, 239, 258), but also intention and commitment to try it out to see how the “*future of desire*” (deliberation) and the “*future of fait*” (determination) will actually meet (van der Heijden 2004, 206-207). The level at which universalities exist in this process is a key issue. *Situationality* based on the heterogeneity puts a strong label on the possibility for setting up and managing a small firm project, as Barnard (1938, 194-196) vividly explains:

“Whatever the occasions or the evidences of decision, it is clear that decisions are constantly being made. What is the nature of the environment of decisions, the materials with which they deal, the field to which they relate? It consists of two parts: (a) purpose; and (b) the physical world, the social world, the external things and forces and circumstances of the moment ... The function of decision is to regulate the relations between these two parts. This regulation is accomplished either by changing the purpose or by changing the remainder of the environment.

... purpose is essential to give any meaning to the rest of the environment. The environment must be looked at from some point of view to be intelligible. A mere mass of things, atoms, movements, forces, noises, lights, could produce some response from a sensitive creature or certainly would have some effect on it, or on other things, but the reduction of this mass of everything to something significant requires a basis for discrimination, for picking out this and that as pertinent, relevant, interesting. This basis is that in this situation something is or is not to be done. The situation obstructs,

or is neutral from *this* point of view. The basis for this discrimination is a purpose, an end, and object to be accomplished.

Purpose itself has no meaning, however, except in an environment. It can only be defined in terms of an environment. Even to want to go somewhere, anywhere, supposes some kind of environment. A very general purpose supposes a very general undifferentiated environment ... But when formed, it immediately ... serves for reducing that environment to more definite features; and the immediate result is to change purpose into a more specific purpose. Thus when I decide I want to go from A to B my idea of terrain is vague. But as soon as I have decided, the terrain becomes less vague; I immediately see paths, rocks, obstacles that are significant; and this finer discrimination results in detailed and smaller purposes. I not only want to go from A to B, but I want to go this way, that way, etc. ... with each new edition of purpose, a new discrimination of the environment is involved ... the thing is done ... it becomes a matter of history; it constitutes a single step in the process of experience."

In our terms, Barnard discusses changeability, subjectibility and temporality of appropriate "fits" through committing to a course of action, revealing and making a specific environment relevant for the project. Idiosyncratic problems and opportunities may initiate "path-creating search" to find acceptable and a possible match between the qualities of the project and the environment and result in heterogeneous initial resource positions (Ahuja & Katila 2004, 901). This might proceed as "path-deepening search" and further increase resource heterogeneity between projects (and firms; *ibid.*, 901). Ahuja and Katila (2004, 902) conclude:

"On the other hand, our results indicate that idiosyncratic problems and opportunities can initiate change – thus organizations may not be as inert as they are sometimes claimed to be ... On the other hand, our results show that once change is initiated it proceeds down, but also up, a given path – thus we find limits for the momentum argument."

Clearly, the most important bifurcation point between the small firm project and the environment is in the beginning when a specific path is created or taken. History of accumulated resources and abilities of (the carrier of) the entrepreneurial agency may frame a path (Beckman & Burton 2008, 18), but essentially one has to "live forwards" with the project by "experimentation and learning" (Woo et al. 1994, 509). As Gibb and Scott (1985, 619) phrase it: "The essence of small company planning is its ability to project into the future the consequences of its present action and think strategically about these". Fuller et al. (2004, 181) summarize their case-study findings on the way the external (environmental) information was utilized for the future:

"It [the firm] creates usable knowledge and action ... as new initiatives or projects, some of which survive to become distinct businesses and some of which do not. In time, some of ... experiments have become the 'future' business, though it was not known at the time when they were established."

It is the task of the owner of the small firm project, the entrepreneur, to work with this challenge before and after committing into specific action. A "satisficing" or even "optimal" or "profit maximizing" fit between the project and its constituencies residing in the environment may only be found experimentally, even though this

experimentation may be framed or guided by the learned wisdom of the past experience (Politis 2005, 409), search over space and time (Katila 2002, 996), or intuitive pattern recognition of how to “connect the dots” (Baron 2006, 108). A “satisficing” fit may appear with more or less effort and be more or less apparent. *If the project sets up a “satisficing” fit between the aspirations, resources and behaviours of the owner of the small firm project and the environment, the setting may exhibit stability or “equilibrium”⁵³ and the project may be managed.*

The scope for “fit” may be comprised by single points or narrow states, but in reality most often by a somewhat fuzzy and broad *range of feasibility*. This range of feasibility exhibits specific changeability (narrow or broad), subjectibility (attributable to internal or external origins) and temporality (erosion, volatility) based on the causal powers affecting it. A “satisficing fit” is enough for the project to exist and exchange to take place. A “maximizing fit” or “optimal fit” is a possible deterministic special case. *If there is not a “satisficing fit”, there is a tension for change or failure of the project.* “Fit” – observed or not by the constituencies (Hofer & Schendel 1978, 4) – is the traditional yardstick of strategic management (Venkatraman & Camillus 1984, 513), appropriate also for an entrepreneurial small firm project (e.g. Naman & Slevin 1993, 146).

Along the traditional substantive dimensions of the environment (input and output “markets” or competitors, suppliers, customers, technology etc.) or their more abstract derivatives (munificence, complexity, stability etc.), the time dimension is of essential importance to characterize the introduction and management of small firm projects. Different environments may afford different kinds of projects, and different entrepreneurs may introduce different kinds of projects through their small firms – “structural inheritance” and interaction matter. Prospects for managing the project will change during its lifetime as it becomes more visible for the other agencies, potentially affecting changeability, subjectibility and temporality. For example, complexity of the multidimensional contingencies among the constituencies of the project on the “backstage” of the small firm, especially, may provide some protection against imitation along causal or pattern ambiguity for the outsiders (cf. King & Zeithaml 2001, 76), but time tends to the erosion of competitive advantages. Knowledge spills over (Audretsch 2003, 28). Over the life-time of the small firm project, the role of factors having potential or actual influence on it may change radically, suggesting the causal powers of the various agencies surrounding these projects to be also time- and context-dependent (e.g. Schindehutte & Morris 2009, 256; Vicente-Lorente & Zúñiga-Vicente 2006, 93).

The real world, the environment, evidently exists there, but no-one aiming to interact with it has full knowledge of it, not to even mention things which may arise after committing to a course of action with a specific small firm project, framing a trajectory for “situated learning” (Lave & Wenger 1991, 121-122). The main underlying question – to be discussed with the idea of a metatheory – is related

⁵³ The rather hypothetical “equilibrium” state in the social systems could occur when the intentions of the individuals are in “equilibrium”, when “no one wants to deviate from his intended behavior given the intentions of others” (Young 2004, 1).

to the particularity vs. universality of the explanation and prescription, which is key to understanding the heterogeneity of this world. The question involves more than “it is necessary to find an appropriate fit between the constituencies”. Bruyat and Julien (2000, 177) underline and elaborate on the main point:

“To understand and entrepreneurial event, we must first understand the individual and the project, and then the links between them throughout the start-up, survival and/or development process, and finally the influence of the environment, and hence of other entrepreneurs and the various resources provided by the environment.”

So, to be able to find and maintain such genuinely multidimensional “fit” between the small firm project and the environment is fundamentally an uncertain commitment, since complexity is present and the future unknown. The demands and offerings of the environment are multidimensional and ambiguous. The motor driving small firms in the establishment and management of these uncertain “fits” with the environment originates from the backstage, where the entrepreneur introduces projects through the small firm. Since there is such a diversity of niches (sources of isolation in resource use) and modes of competitive resource use, *the specificity of the small firm “species” may not lie in just one particular configuration* (like: all small firms are local, simple, or low-tech), but rather in the process itself – in the finding or creating and following of some paths in the environments where various aspirations, resources and behavioural systems reside. *Quality of this process could be the source of the more enduring, “genetic” specificity of the small firm species.*

Toward More Enduring “Genotypic” Specificity of the Small Firm

What specific motors would drive a small firm, fuel its processes in a different way in comparison to a large firm in probing the uncertain and complex world? If a 1,000-man firm has 50 people to work creatively for the discovery of future success and for managing the risks and the unexpected, then a two man firm just cannot devote 5 % of its personnel to these tasks: probably both become involved, or the other of them (50 %), or neither of them (0 %). In a 1,000-man rowboat all may have to invest 100 % of their effort to move, but get only 0.1 % of the outcome, which is not expected to happen in a two-man boat (Sarasvathy 1999, 5). The pronounced role of the entrepreneur in a small firm is unavoidable, in pros and cons. The small firm is a business vehicle of the entrepreneur(s) and the behavioural systems of small firms have weak powers in relation to those of the entrepreneur(s). These powers and agentic capacities are often considered to be “*entrepreneurship*”. When entrepreneurship is understood as a specific *behaviour* much directed towards the future, uncertainty and risk (Drucker 1985, 25-26) in the *practical action*, the more enduring specificity of the small firm “species” could arise from the pronounced effects that entrepreneurship logically has on small firms (e.g. Hisrich & Drnovsek 2002, 177; Julien 1993, 158; Yu 2001c, 187). This was abundantly present even in the most modest small firms, and not only in the magic, mysterious and glorious ways of finding and maintaining a “fit” with the hostile, cold and hyper-competed environment. *If the small firms were not considered just as a variation along the various “phenotypic” size continua of the firms, the more*

enduring differences for the continuous existence of this "species" might be found in the behavioural aspects featuring the "genotypic" differences.

As small firms last for considerable periods despite their "serious" comparative disadvantages (Penrose 1995, 220) – often referred to as "liability of smallness" (Brüderl & Schüssler 1990, 546) – there must be something in the "struggle for aspirations" that favours these little creatures. Keeping with the biological ideas and the evolutionary perspective, the relationship between the species and its individual members is interesting. *"Biological species are the main 'bookkeepers' of acquired knowledge,⁵⁴ with individual members of the species functioning as 'explorers' of novelty"* (Kováč 2007, 65). In this way, new surroundings may be conquered. Applying this logic of living systems to the artificial life, the small firm could be a tool with which an entrepreneur can explore novelty, possibly granting the entrepreneur with some enduring advantages in the struggle for aspirations through finding new unoccupied niches or competitive advantages. *Then, one should not look at the specificity of the "smallness", but at the agency actually using this small tool as an "explorer of novelty". A small firm may be just one example of such a tool.*

Every species in biological life has a "fixed number of distinct sensors" attuned to observe, distinguish and assign significance (and meaning) to the objects and events of the surroundings (Kováč 2007, 66). Abstracting from this idea, the small firm could be attuned to, indeed, exploring niches or novelties allowing isolated or differential competitive resource use in relation to the other "species" of firms, granting it a lasting status within the genus of business vehicles. In biological life, this kind of a role and ability carries "evolutionary" value. In the social world, such a process belongs to the "strategic" posture.⁵⁵ In both worlds, such process is driven by a kind of genotypic, dispositional regularity of the "replicators" (agencies) to enforce development of specific kinds of "interactors" (projects). As the small firm has only resources and behavioural systems, it is subjected primarily by entrepreneurial aspirations and secondarily by environmental aspirations. *The enduring strategic capacity of small firms to find and occupy niches or find competitive advantages must lie in the "genotypic" dispositions related to the agency residing in the entrepreneur, often called entrepreneurship.* It may provide the "functional mesh" (Cosmides et al. 1992, 9) between the design features of the actions and the adaptive problems that the entrepreneurs with their small firms had to resolve in their particular environment.

⁵⁴ Plotkin (1994, 229, 244) had similar kinds of ideas about all knowledge as representation of (evolutionary) adaptation. Along this line of thinking, the acquired knowledge may be repositied in various kinds of stores: genes, configurational individuals or species, documents, modes of behaviour, cultures, etc. This resembles the view of evolution as a bricolage, producing surprisingly diverse end-products from pre-existing materials (Duboule & Wilkins 1998, 58).

⁵⁵ Porter (1985, 11) defined two basic types of competitive advantage a firm can possess: low cost and differentiation. Concomitantly, three generic competitive strategies may be figured out: cost leadership, differentiation, and focus strategy (Porter 1980, 35). *"The notion underlying the concept of generic strategies is that competitive advantage is at the heart of any strategy, and achieving competitive advantage requires a firm to make a choice"* (Porter 1980, 12).

A small firm is a business vehicle of the entrepreneur. She enters the small firm through the “backdoor” and dominates its actual behaviours. We have the pragmatic working definition of the small firm as *a firm run by an entrepreneur rather than by hired management*. When small firms seem to survive in the struggle for life like a real “species”, they must carry some specific “genes” that are able to survive over time. Remembering the instrumental role of the small firm as nexus of transformation and exchange, the energizing role of the entrepreneur will “shine through” the small firm (cf. Heunks 1998, 269; Yu 2001c, 187-188). When a willing and able candidate engages with the entrepreneurial agency, her most common immediate project is probably setting up a small firm in order to provide some services through it by specific projects to meet some aspirations in the “front arena” of performance. *The reason for small firms to exist over time as a “species” may not lie in the small firms themselves (because they have only an instrumental role), but in the entrepreneurial agency using them as a platform for projects to meet the aspirations of the entrepreneur and her audience.* Fuller (2000, 82-83) also votes for this idea:

“The institute of small firm is a vital part of society ... If they are such a settled part of the landscape, are they worth of attention? Are they under threat as a species? If anything they are growing in numbers and political significance world-wide ... It is that agency, the ability to reflexively shape one’s response to the environment, and hence the environment itself, creates structures that are unintended or unanticipated by the act of agency ... My reading of complexity in the business context, puts entrepreneurial activity as this central reflexive activity and the small firm as a vehicle for economic adaptation. If entrepreneurial behaviour is structured within the small firm and these small firms are structurally significant to the socio-economic domain, then I would suggest that small firms underpin global economic structures. The emergence of novelty, the adaptation to change, the structural dynamic come from human agency. Enterprise is a label we give to human efforts to create progress. In the economic domain this is entrepreneurship.”

3.3 Entrepreneurial Agency as the Source of Small Firm Specificity

The agency attached to entrepreneurs, *the entrepreneurial agency*, exhibits an exceptional and partly “mythical” role⁵⁶ (cf. Kuratko 2009, 5-8). This *specific kind of human agency* is energized by various aspirations of the entrepreneurs and moderated, afforded or constrained, by their resources and behavioural dispositions. In biology, a specific kind of gene pool enforces or facilitates a specific process and outcome of development of the interactor (organism). In our case, *a specific pool of aspirations, resources and behavioural systems possessed by the entrepreneurial agency enforces or facilitates a specific development of projects*. Aspirations may range from meeting very deterministic basic needs, to very deliberate imaginative ideas of self-expression. They may range from following rule-based habits or obeying enforced regulations, to meeting some ideas of imaginary envisioning, again at the continuum of differential changeability. The aspirations may arise from internal or external sources (subjectibility). For example, the typologist’s eye could see an “opportunity-motivated entrepreneurial activity” based on the external motor and a “necessity-motivated entrepreneurial activity” based on the internal motor (McMullen et al. 2008, 890). Aspirations may have different temporal orientations emphasizing the past, the present or the future to varying degrees. Besides the past-based rationality, the entrepreneurial agency could employ episodic and semantic future thinking and prospective memory (Atance & O’Neill 2001, 533). *Historical time* plays a role (cf. Sztompka 1993, 50-52) through “structural inheritance”.

The pool of *aspirations* energizes the systems of generation, selection and coherence to produce some action (or the refrain from it) to respond to them. The aspirations may vary in strength and quality. When the aspirations change, there must be a system that produces alternatives, candidates or prototypes for responding on them: the entrepreneurial agency should have some kind of a

⁵⁶ It is not uncommon to attribute entrepreneurs with somewhat superior characteristics: confidence; perseverance and determination; energy and diligence; resourcefulness; ability to take calculated risks; dynamism and leadership; optimism; need to achieve; versatility, knowledge of product, market, machinery and technology; creativity; ability to influence others; ability to get along well with people; initiative; flexibility; intelligence; orientation to clear goals; time-competence and efficiency; ability to make decisions quickly; positive responsiveness to challenges; independence; honesty and integrity; maturity and balance; responsiveness to suggestions and criticism; responsibility; foresight; accuracy and thoroughness; cooperativeness; profit-orientation; ability to learn from mistakes; sense of power; pleasant personality; egotism; courage; imagination; perceptiveness; toleration for ambiguity; aggressiveness; capacity for enjoyment; efficacy; commitment; ability to trust workers; sensitivity to others (Hornaday 1982, 26-27; cf. also Timmons & Spinelli 2007, 8). Someone might consider this kind of a capable and pleasant person to be a myth rather than a representative actor. Also Shane (2008, 160) has made a dubious statement: “*The reality of entrepreneurship lies in stark contrast to our myths about it. Entrepreneurship is a very common activity, undertaken by many people at some time during their lives. The typical entrepreneur is not a special person with hidden psychological powers that allow him to build great companies or great wealth ... The typical entrepreneur could be your next door neighbor – and he might not be your most successful neighbor.*”

system of generation. One must be able to decide how to choose between the alternatives, or to initiate generation of additional ones: the entrepreneurial agency should have some kind of a system of selection. The two sub-systems of generation and selection as opposite forces within the single entrepreneurial agency may efficiently produce a huge variety of outcomes from rather simple ingredients (Mitchell & Taylor 1999, 593-594). Finally, to maintain boundaries, logics and teleology, there must be some way of coordinating, controlling, evaluating and organizing all of this: the entrepreneurial agency should have some kind of a system of coherence providing unity, identity and continuity (Figure 18). All these subsystems may exhibit individual changeability, and temporality in the production and management of projects (interactors). Besides these *behavioural systems* of the entrepreneurial agency, the projects as instruments for meeting aspirations are moderated (afforded or constrained) by the *resources* controlled: the natural, physical, financial, informational or relational (social) ingredients to be combined and transformed during the action. *A successful project has the potential to reward the owner of the agency with additional resources strengthening its agentic capacity to serve additional aspirations. A failed project has a potential to lead to the decline of the aspiration, the loss of resources, and the decease of the entrepreneurial agency.*

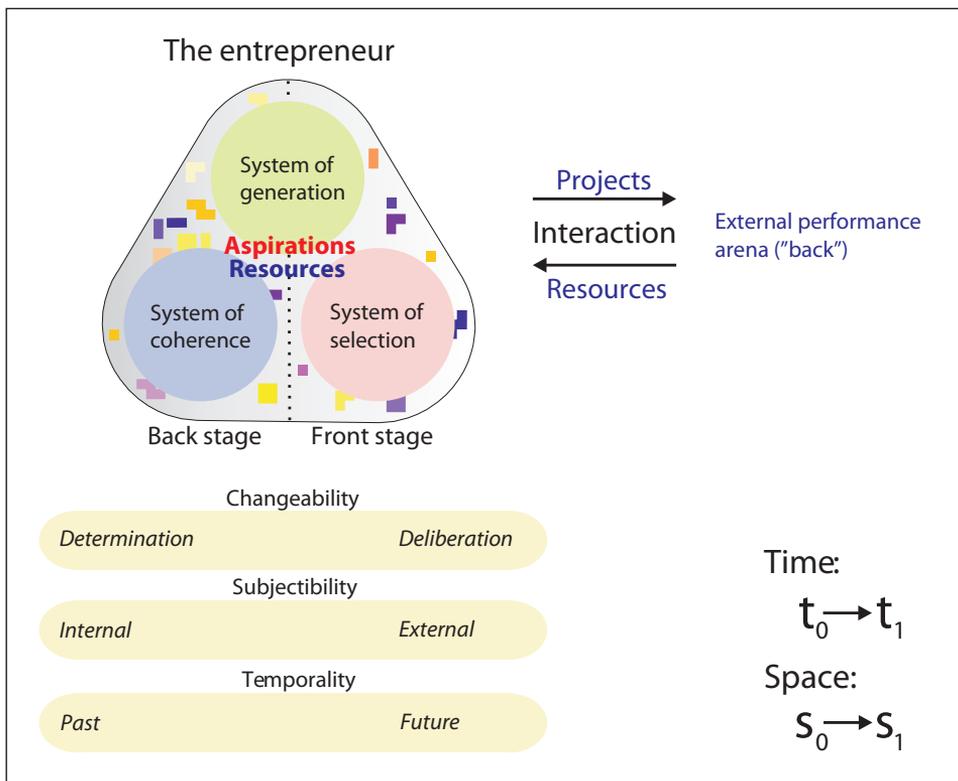


FIGURE 18 The Entrepreneurial Agency

The central role of the entrepreneurial agency in the dynamic view of the small firm specificity is obvious. It is the ultimate source of “genetic” specificity of the small firm “species”, manifested in the processes related to generation and management of projects employing the small firm as a business vehicle. *But how could one capture the role and nature of the entrepreneurial agency for analytical purposes?* To what extent do traditional prescriptions provide tools for that purpose? If the entrepreneurial agency is conceived as the willingness and ability to introduce novelty in uncertain situations, how could this be captured by some analytical structure? Traditional prescriptions in the fields of economics, psychology and sociology, among others, have some proposals which will be described and examined next.

3.3.1 The Economic Prescription for the Entrepreneurial Agency

The Setting and the Proposals

A common view is held that there is demand for a specific entrepreneurial agency. Entrepreneurial agency is needed for creating incremental *wealth* (Ronstadt 1984, 27-28) or economic *growth* (Holcombe 2000, 54); for coordinating a *productive* combinations of resources (Walras 1954, 222); for providing *efficiency* by replacing obsolete firms (Schumpeter 1934, 250) or institutions (Colomy 1998, 276) or other spatial and temporal market imperfections (Kirzner 1997b, 11; Kirzner 1985, 30); for safeguarding *competition* by the entry process (Kirzner 1973, 96, 99; Geroski 1989, 577) or by filling “interstices” left by other actors (Penrose 1995, 222); for introducing *novelty* in various forms of innovations (Drucker 1985, 30); for providing stages for real-life dramas of achieving social approval and honour (Zafirovski 1999, 368), as well as for many other kinds of *social needs* like belongingness, community, friendship (Chell 2007, 17) and capturing unemployed “refugees” back into activity (Thurik et al. 2008, 682); for organizing “emergence”, especially by creating *new firms* (Gartner 2001, 30; Gartner et al. 1992, 15); for bearing or managing *risks* and uncertainties (Knight 1921, 281); for introducing and managing change as “*agents of change*” (Audretsch 2002, 3); for discovering and exploiting *opportunities* (Shane 2003, 4); for the “*making of entire new words*” (Czarniawska-Joerges & Wolff 1991, 529). All the above views have a common feature; they handle outcomes of some *function of a specific quality* – a quality not provided by other agencies and not found by studying the core of well-defined markets (in the “front” arena of performance) prescribed by conventional economic theory. *There is evidently something that neither established markets nor managers are able to generate without the entrepreneurial agency; some aspirations are not fulfilled without it.*

Different sciences tell different stories about the need and achievements of the entrepreneurial agency. Conventional *economics* provides a deterministic prescription of the functional needs mentioned above, conditioned by the existence of scarcity (cf. Robbins 1979, 997). Economics, however, faces a serious *frontier problem* in dealing with the entrepreneurial agency. In neo-classical economics (e.g. Samuelson 1947, 88), the entrepreneurial agency hides somewhere within the black-boxed firm carrying out mechanistic combination of resources into

products by optimization under fully known conditions, with given preferences and technologies or production sets (Casson 2005, 328; Jehle & Reny 2001, 118; Machlup 1967, 2; Nelson 1991, 64; Nelson & Winter 1982, 51);⁵⁷ *the entrepreneurial agency is collapsed within the structure of the firm and embedded in the functions of the market process*. Entrepreneurial agency has no home in the market structures or “forces”, possessing the ability to coordinate and manage exchanges solely through prices (“the invisible hand”) in the circular flow of the economy.⁵⁸ In the most orthodox economics, the “pure” mechanical economic agency is sufficient. This view observes the outcomes of the entrepreneurial agency, but excludes it as an identifiable agency.

Recognition that all exchanges are not efficiently managed by the markets, introduces a role for other economic organizations (firms). *“There is a cost of using the price mechanism”*, stated Coase (1937, 390). In transaction cost economics (Coase 1937, 390-391; Williamson 1996, 7), the entrepreneurial agency could be thought to manage the borderline of markets and hierarchies (firms) by *judging* which transactions are more appropriate for the market-based resource allocation and which are more appropriate for administrative management within the firm. If *“the entrepreneur”* (Coase 1937, 392) fails to do this, it is always possible to revert to the open market. While acknowledging asset specificity, uncertainty and the relational character of contracting (Williamson 1979, 250; Williamson 1996, 45), the focus widens to the *“economics of idiosyncrasy”* (Williamson 1979, 238) and to *behavioural governance* of the relationships. As the markets do not make judgements and decisions and do not actually produce physical responses to the aspirations, these are done within the firms. In this view, *the entrepreneurial agency lives at the borderline of the markets and the hierarchies of firms* (also Shane & Venkataraman 2000, 224).

⁵⁷ In general, neo-classical economics is driven by formalism (cf. *“every economics student should be able to translate an economic story into an equation or a numerical example”*; Varian 2006, xx), mechanics and equilibrium, has not placed much emphasis on the qualitative difference a firm or an entrepreneur might make (Samuelson 1966, 79): *“It is no accident that Walras and Marshall paid so little attention to the firm and so much to the industry. For under the purest conditions of competition the boundaries of the former become vague and ill-defined, and also unimportant, since through reactions to prices the factors of production adjust themselves in the right proportions and in the right total amounts for the industry.”* For studying just price reactions, no more than a “rational” reactor is needed!

⁵⁸ Schumpeter (1934, 76) makes this point as follows: *“The tendency is for the entrepreneur to make neither profit nor loss in the circular flow – that is he has no function of a special kind there, he simply does not exist”*. Kirzner (1973, 217-218) shares this deficiency of the conventional price theory: *“In a market economy at any given time, an enormous amount of ignorance stands in the way of the complete coordination of the actions and decisions of the many market participants ... By setting up its analytical apparatus on the assumption of perfect knowledge, with consumers aware of all purchase possibilities, with resource owners aware of all selling possibilities, and with firms aware of all possible cost and revenue conditions, orthodox price theory has assumed away those circumstances in which this kind of normative evaluation is possible ... Such a world exhibits no ignorance, no absence of coordination, no opportunities for entrepreneurial profit, and, in fact, no entrepreneurs at all.”* Indeed, looking at the economics textbooks (e.g. Friedman 1953; Jehle & Reny 2001; Samuelson 1958; Varian 2006), the entrepreneur does not exist.

The various resource-based (Alvarez & Businez 2001, 762; Barney 1991, 112; Denrell et al. 2003, 977; Hunt 1997, 62; Penrose 1995, 217; Wernerfelt 1984, 172), knowledge-based (Grant 1996, 112; Kogut & Zander 2003, 519-520) and competence-based (Prahalad & Hamel 1990, 82; Selznik 1957, 42; Yu 2001c, 194) views of the firm have further refined the settings, where these firm-based and managed transactions are probable, appropriate or successful. In these views, allowing heterogeneity of resources and capabilities, the entrepreneurial agency exhibits very similar *functions* as a strategic manager in managing various bundles of resources (including information) or core competences within a firm, possibly equipped with some specific abilities, to be considered as “a resource” (Alvarez & Barney 2001, 756; Mosakowski 1998, 626; Yu 2001c, 187).⁵⁹ Here, the entrepreneurial agency parallels with a specific but arbitrary resource related to management, knowledge or competence. These ideas focus on the inputs and *internal* views of the firm, whereas conventional economics comprehends only the production function and the outputs through *external* observation. In this view, the managerial⁶⁰ and entrepreneurial agencies meet somewhere in between the entrepreneurial orientation of the managerial action (Jelinek & Litterer 1995, 138; Lumpkin & Dess 1996, 152; Stevenson & Jarillo 1990, 25) and the managerial role of the entrepreneurial action (Smith & Miner 1983, 337). In this view, *the entrepreneurial agency lives within the firm, partly embedded in its bundles of resources, competences and capabilities.*

The occupational choice between wage-labour and self-employment (or unemployment), accompanied by a “liquidity constraint”, is probably the most common formulation of entrepreneurship employed in studies based on conventional economic theory⁶¹ (e.g. Blanchflower & Oswald 1998, 32; Casson 2003, 165; Eisenhauer 1995, 67; Evans & Jovanovic 1989, 812-813, 824; Kanbur 1982, 8; Parker 2004, 5, 59; Pfeiffer & Reize 2000, 632), but this choice is not necessarily the core of an entrepreneurial agency. Using “entrepreneur” and “self-employed” interchangeably is not uncommon (e.g. Burke et al. 2008, 93; Van Praag & Van Ophem 1995, 514). However, answering to the fundamental needs of the entrepreneurial agency could ask for, or exhibit, differential information, differential abilities and differential conduct of the exchanges in non-universal

⁵⁹ The view presented by Kirzner (1979) casts clearly the difficulty of placing the entrepreneurial agency in an appropriate category. Quite contrary to this view, he contends that “*entrepreneurship is not to be treated as a resource*”, that “*entrepreneurial ability in the sense of an available useful resource*” was never recognized, or even demanded, by the market (*ibid.*, 181).

⁶⁰ Rifkin and Harrar (1988, 276), citing Ken Olsen, make this distinction in a very robust way: “*My theory of management is very simple: The boss or a committee cannot know enough to make a strategy, or to make a product or to make a plan. Their job is to approve plans, integrate plans, add wisdom to plans and make sure they form a Corporate plan or strategy.*”

⁶¹ The conventional economic theory is concerned with the efficiency of the equilibrium: “*The preceding discussion of efficiency suggests that entrepreneurial risk aversion is the source of all of the observed inefficiencies. When entrepreneurs are risk averse the equilibrium is not only characterized by an inefficient distribution of risk; there will, in general, also be too many or too few firms and they will not employ the correct number of workers*” (Kihlstrom & Laffont 1979, 742).

contexts – notably non-existing according to conventional economic theory (e.g. Arrow 1986, 390, 397; Hayek 1948, 78; Kirman 1992, 118). The various resource-based and competence-based views have alleviated this problem by bundling the entrepreneurial agency with the economic and managerial agencies, but simultaneously making their roles even more obscure. They essentially feature how an agency residing within a firm may acquire and possess some agentic capacity over the “markets”.

The Slippery Entrepreneurial Agency

Consequently, many have claimed that purely economic explanations should be reserved for situations where their universal and deterministic assumptions are valid, and some other or additional explanations are needed when they are not met (Addleson 2001, 170; Hodgson 1992, 760; Hodgson 1999, 35; Kirzner 1973, 37-38; Lawson 1997, 154; Ripsas 1998, 105; Schumpeter 1934, 59-63; Williamson 1979, 253).⁶² “Economic laws are statements with regard to the tendencies of man’s action under certain conditions” (Marshall 1920, 38). Evidently, in order to be able to bring about many of the issues attributed to the entrepreneurial agency, such a generator of novelty may not exist within the deterministic economic world of universal similarity (Hayek 1948, 47) and temporality (Yeager 1997, 154). By reducing the many “active, creative and human” (Kirzner 1973, 35) qualities of decision-making into mechanistic “points” of rational choice,⁶³ conventional economics provides a powerful framework for studying *existing* market structures and functions: “The

⁶² These notions have not been able to prevent attempts to “economize” almost everything: democracy, criminality, marriage, fertility, family and social interactions (e.g. Becker 1976).

⁶³ This extremely strong and unrealistic assumption of perfect rationality has been alleviated by an “as if” statement: actors behave “as if” they maximized utility or profit or “expected returns” (Friedman 1953, 21-22). The justification for this position has been sought from the fact that “under a wide range of circumstances individual firms behave *as if* they were seeking rationally to maximize their expected returns” having full knowledge of the data, since if they did not behave this way, “it seems unlikely that they would remain in business for long” (ibid., 21-22). Market forces are seen to enforce economic actors to follow deterministic behaviour of the kind, while the explanations and predictions tend to be outcome-based, partly tautological and unable to reach out-of-the-box situations. Economic agents behave that way, because they have to; and even if they are not able to follow the exact prescription, they are pushed toward following it, why it may be used as a universal prescription. Replacement of the behavioural diversity by the rule-based maximization has led the neo-classical economics to remain a normative mechanical tool rather than becoming a methodology for understanding the behaviours of the heterogeneous actors. Powell and Wakeley (2003, 155) make a clear statement of the outcome: “... while a neoclassical maximising equilibrium model may derive a result, which is reflected in the ‘real world’, the fact remains that all it can generate is the result alone. That is, it does not provide a plausible account of the ‘real world’ mechanism(s), which generated the result.” The paradigm wall has also isolated the interests between philosophers and economists (Hausman 1984, 240): “Philosophers want to understand knowledge acquisition in economics mainly because of their general interest in the possibilities and limits of human knowledge and because of their general interest in human agency. Economists want to understand knowledge acquisition in economics, mainly because they want to streamline and to improve the process and to reveal the blunders of those who pigheadedly adhere to a different approach to economic theorizing.”

[neoclassical] model is essentially an instrument of optimality analysis of well-defined problems, and it is precisely such (very real and important) problems which need no entrepreneur for their solution" (Baumol 1968, 67). The economic model, however, faces a serious frontier problem where the assumptions do not stand up. If perfect knowledge prevails, why do some fail because of lacking such and why does one have to advertise at all? The economic model provides one partial account of antecedent structural conditions for the entrepreneurial agency (cf. Metcalfe 2004, 174; Vincent 2008, 883). One of the most troublesome frontiers seems to be the one between the human agency and the economic agency, the one separating psychology and economics (Earl 1990, 718; Latsis 1972, 223; Simon 1987, 39-40).

Let us therefore take another look at the functions that the entrepreneurial agency could be expected to carry out in fulfilling the needs generally recognized, but not that well captured by conventional thought. In the "back" arena of performance, the entrepreneur introduces various projects ("interactors") toward (and through) the business firm, driven by the bundles of multidimensional aspirations, and afforded by the resources controlled and behavioural systems possessed. The ability to provide services needed from the entrepreneurial agency – its specificity – must lie in this process and in the quality of these projects. To maintain the specific "species" of small firms, the entrepreneurial agency must enhance some enduring *specificity among the population of projects it enforces and facilitates* as compared to projects introduced by other agencies, like the "pure" economic agency ("price reactor") or the managerial⁶⁴ agency. The logic of endurance of a biological species requests an ability to find a way toward isolation in the resource use or toward a different way of exploiting competed resources. To this end, the specificity of the entrepreneurial agency could relate to the *ability* to find new areas of isolation in the resource use or to find new ways of competitive resource use in the "front" arena of performance. These kinds of outcomes could be called *innovations*. Following Schumpeter's (1934, 66) types of innovation, introducing new sources of raw materials and new markets could both *introduce new areas of isolation in the resource use*. Introducing a new good (product or service), new organization and new method of production could *introduce new ways of competitive resource use*.

The disproportionate amount of novelty brought by the innovations of the two kinds brings about flexibility in the resource use for the small firm "species" in its each specific environment, isolated or competed (cf. Parker 2004, 216). Especially in this population, disparate entrepreneurial agencies with their innovation projects are born and lighten and die out, twinkle like stars in the sky,

⁶⁴ Shackle (1955, 7) makes an interesting distinction between "divisible" and "non-divisible" experiments. The outcome of the former "is the result of adding the outcomes of many separate performances all in certain respects uniform", whereas the latter "so far as the individual is concerned who stands to gain or lose by it, can be neither itself broken down into a number of uniform additive parts nor treated as part of a divisible experiment". The former could be considered an appropriate description of the managerial action and agency, whereas the latter could describe an entrepreneurial project of the entrepreneurial agency.

to a degree not found in any other population. *"Innovation patterns in small firms are more diverse than generally believed"*, conclude de Jong and Marsili (2006, 226). "New" is always *small* and *local* when it emerges, rather than extensive, large or universal. A small firm is an ideal tool for the entrepreneurial agency to probe into novelty, to explore a niche or a competitive advantage. The introduction of novelty and coping with the uncertainty are two sides of the same coin: "new" cannot be known *ex ante* with "certainty"; there is a *risk* in the effort.⁶⁵ In this way, *the entrepreneurial agency introduces novelty by experimental innovation projects and manages the uncertainties related to these, with a potential to meet the energizing aspirations or to fail as an agency.*⁶⁶ Carrying these qualities within the *single* entrepreneurial agency may generate rival projects of a specific quality in terms of isolated or competed resource use (Kirzner 1997a, 73) to be put in the evolutionary test by the "struggle for aspirations". A small firm, actually dominated by the entrepreneurial agency, may host such projects. For the entrepreneur, this results in the possibility to meet her business related (but not only economic) aspirations, and for the environment this results in the possibility to meet aspirations not met before by the other agencies with their projects.

⁶⁵ Knight (1921, 224-225) defined three types of probability situations: 1) a priori probability, when "chances" can be computed from a known distribution, 2) statistical probability, when "chances" can be only determined empirically by testing whether the known distribution is contextually valid, and 3) estimates, when there is no way to say anything about the probability of the outcome. Knight called the two first instances as "risk" and the third one as "uncertainty" (ibid., 233). He stated that *"it is this third type of probability or uncertainty which has been neglected in economic theory"* (ibid., 231). Even in uncertain situations judgements are made; he saw that in a *"typical business decision"* one *"not merely forms the best estimate he can of the outcome of his action, but he is likely also to estimate the probability that his estimate is correct"* by two separate exercises of judgement (ibid., 226-227). *"The subjective feeling of confidence of the person making a prediction"* is important in this kind of a judgement under ignorance, noting that a *"striking feature of the judging faculty is its liability to error"* (ibid., 229-230). Consequently, *risk* is an epistemological feature of "knowing" rather than "being", related to being able and willing to make decisions concerning the unknown future, and *"once something previously defined as a risk has occurred, it can no longer be a risk, but becomes a past event, an occurrence, a fact"* (Reith 2004, 386).

⁶⁶ The economic definition of entrepreneurship is even more slippery in this respect. Stevenson and Jarillo (1990, 23) put forward a situational and behavioural definition of entrepreneurship: *"Entrepreneurship is a process by which individuals ... pursue opportunities without regard to the resources they currently control ... we assume that we are seeing the entrepreneurial phenomenon whenever opportunity which requires resources beyond those controlled is being pursued"*. While the notion of resource sufficiency is questionable in this definition, the opportunity (to produce future goods and services) and the individual discovering, evaluating and exploiting it, are included in many of the modern definitions of entrepreneurship (e.g. Erikson 2001, 12; Shane & Venkataraman 2000, 218; Venkataraman 1997, 120). Schumpeter (1934, 74) called entrepreneurs *"the individuals whose function it is to carry ... out ... new combinations of means of production"*. In his view, entrepreneurship is a function (ibid., 74), not a vocation (ibid., 77). For Kirzner (1979, 215), entrepreneurship was related to the arbitrageur's alert discovery of an opportunity unnoticed by others. Also these definitions posit that entrepreneurship is a *situational* (Shane & Venkataraman 2000, 219) and *transitory* (Carroll & Mosakowski 1987, 571) phenomenon. They are very close to the concept of introduction and management of an innovation project here.

A biological analogue may help to clarify the issue. In the nature, the “entrepreneurial agency” could be taken by an animal or by a plant that migrates to a new environment. This project is novel: it may result in the inhabitation of a new resource environment; in the conquer of a new area of isolation in the resource use. *A similar project could exist in other environments, or it could have existed in the past, while this novelty may take place in space or in time. The project is also risky: it may result in the death of the animal or plant (interactor or vehicle) and the specific gene pool (replicator) it carries.*

The “entrepreneurial agency” could also be taken by an animal or a plant with such a qualitatively different gene pool (after recombination or mutation of genes) that enforces or encourages a new way of resource utilization in an existing, competed environment: discovery of a new food source (e.g. plant, animal), emergence of a new colour or discovery of a habit giving shelter from the predators, discovery or emergence of a new way to win food (e.g. habit of breaking the fruit, longer snout), or emergence of an enzyme making it possible to digest new food. Also this project is novel: it may result in differential utilization of the resources by introducing a new way of competitive resource use. *The project providing differentiation could exist in another environment or it could have existed in the past, while this novelty may also take place in space or in time. The project is risky: it may result in the death of the animal or plant carrying the novel trait or behavioural disposition.*

Both the biological cases illustrate engagement with a particular action as a “project”. Biological analogues should not be transplanted into the social world without caution, since “firms are institutions created by men to serve the purposes of men” (Penrose 1952, 809). In the social world, aspirations exhibit more diverse changeability (e.g. among aspirations *and* among projects), subjectibility (e.g. intentionality *and* external or internal “genetic” enforcement) and temporality (e.g. irreversibility *and* reversibility, recurrence) than projects of the biological life, why the risks of experimentation with new projects are generally less fatal. *They may, however, lead to the decease of the specific entrepreneurial agency with its specific resources, behavioural systems and aspirations (as a replicator).*⁶⁷ In both worlds, the entrepreneurial agency is transitory and situational, specific in time

⁶⁷ Here one should be precise. In nature, a failure in experimentation of this kind has a survivor risk of the organism (interactor or vehicle) and the genes (replicators) it carries. In the social world, a failure in the experimentation of this kind has a survivor risk of the project (interactor or vehicle) and the agency carrying the specific aspirations, resources and behaviours (replicator). The entrepreneurial agency refers to the ability to change energy into action by one or some human beings taking the role of an entrepreneur as an owner of the risky and novel project. This agency is transitory, why a failure would not be fatal to the carrier of the agency, only for the agency itself (aspirations, resources, behavioural systems and the transitory possibility to act) and for the project (e.g. small firm offerings), of course. The same carrier may regain the ability: the entrepreneurial agency may be recurrent (e.g. serial entrepreneurs). The notion of “crucial experiment” or trial by Shackle (1955, 6) has parallels with the ideas above: “By a crucial experiment I mean one where the person concerned cannot exclude from his mind the possibility that the very act of performing the experiment may destroy for ever the circumstances in which it was performed. We must remember that an essential part of these circumstances is the individual’s own stock of experience and mental attitude”. The entrepreneurial project is a risky “crucial” project, observing historical time.

and place. Therefore, the ingredients of the project may become assimilated from diverse sources (even through imitation), as long as it introduces novelty in its environment.

Thus far, *the specificity of the entrepreneurial agency is provided by the introduction of risky innovation projects for experimentation to yield new areas of isolation in the resource use or new ways of competitive resource use in the "front" arena of performance. Qualities of the situational novelty and uncertainty of these innovation projects⁶⁸ are managed by the single entrepreneurial agency, in risk of decease or in chance to fulfil aspirations not met by other projects.* Economic theory may frame demands for this role, and may even help to explain which existing projects may become "selected" and which may not, but it is somewhat powerless in dealing with the real-life supply of such (e.g. Burke et al. 2000, 585). The economic agency provides a system of selection (by the market competition) for the projects that have entered its coordinative boundaries; its system of coherence (by the prices and market information). But the economic agency hardly has any system of generation, except for the maintenance of somewhat illusory "rational expectations" (Arrows 1986, 394) and "economic incentives" for the economic rewards in the "known" future (or, treated as "known"). Economics proposes the historical constants to be valid also in the future (cf. von Mises 1966, 55-56).

The few proposals for capturing the entrepreneurial agency using conventional economic theory are rather unrealistic and naïve; for example Khilstrom and Laffont (1979, 723, 746) base their proposal on defining business opportunities *ex ante* visible and feasible for all individuals, also knowing their objective probability distribution. Evan and Jovanovic (1989, 814), in turn, model the would-be entrepreneurs to know the entrepreneurial ability *ex ante* before committing themselves on starting the business. But "*where foresight is uncertain, 'profit maximization' is meaningless as a guide to specifiable action*" (Alchian 1950, 211). Quite often the risk is considered to be just some specific probabilistic volatility of the returns or profits (e.g. Fisher & Hall 1969, 81-82) rather than a potential failure of the whole agency with related implications. Understandably, arriving to an exact equilibrium, optimum or maximum requires exact presumptions.⁶⁹

⁶⁸ "*Innovation projects*" is used here rather than innovations, since these projects may also fail to consolidate the innovation. Innovation, like surprisingly many other concepts touched upon in this study, is intuitively clear but fuzzy in precision. The interpretation employed here is pragmatic: innovation projects fill aspirations not filled by other projects in a situational setting and aims at introducing new ways of utilizing resources, why it may be universal or local, radical or incremental (cf. Van de Ven et al. 1999, 63-64), etc. Entrepreneurs introduce their own innovations projects with their own risk, others may introduce such without such risk: "*Innovation managers and entrepreneurs ... are centrally responsible for directing the innovation process that goes on within the proverbial 'black box' between inputs and outcomes*" (ibid., ix).

⁶⁹ Exhaustive arguments have been presented indicating that the entrepreneurial agency was either equilibrating or dis-equilibrating in nature. Even within the Austrian tradition of economics, Kirzner (1985, 11-12) maintains that "*entrepreneurial discoveries are the steps through which any possible tendency toward market equilibrium must proceed*", whereas Lachmann (1976, 61) sees the whole concept of equilibrium more or less useless in a kaleidic world, where "*Marshallian markets for individual goods may for a time find their respective equilibria*", but where "*the economic system never does*" and where also entrepreneurs face or facilitate both "*forces of equilibrium*" and "*forces of change*".

The entrepreneurial agency may benefit from acknowledging the general level wisdoms of the economic agency, but may not live only with them. *Where the strong presumptions of the economic agency do not apply, there is a demand for the entrepreneurial agency.*

The Resolution

The economic agency may call the entrepreneurial agency by a *potential* to earn entrepreneurial profit or rent (Schumpeter 1934, 153-154; Rumelt 1987, 143)⁷⁰ somewhere beyond its paradigmatic boundary, where its “*physics of the society*” (Solow 1985, 330) is not valid. “*If we cannot measure the total volume of entrepreneurial activity, there is no way to assess its economic importance and rate of return*” (Rosen 1997, 149) or “*entrepreneurship reveals to the market what the market did not realize was available, or indeed, needed at all*” (Kirzner 1979, 181), are exemplary confessions of this boundary. Economics provides analytical tools for analyzing what utility and profit maximizers do in an existing, well-defined world (cf. Bowles & Gintis 2000, 1411, 1433; Machlup 1974, 272). Conventional microeconomics works with the consequences, with the existing (Loasby 1971, 863). The entrepreneurial agency focused on situational novelty which may not rely on this kind of a framework for its functions. The frontier problem faced by universally deterministic, external and past- or presence-oriented economics in capturing the situationally deliberate, internal and future-oriented entrepreneurial functions is the issue at stake (Figure 19). The *reactive functions* obeying the presumptions of conventional economic theory, and the future-oriented *entrepreneurial functions* which do not obey them, form a *duality* that can not exist separately from each other: *the “objectivity” of*

⁷⁰ Schumpeter’s entrepreneur was purely a functional introducer of new combinations of the means of production, remunerated by the profit for this function, but not bearing any risks in this. He explains (Schumpeter 1934, 153-154): “*It [profit] slips from the entrepreneur’s grasp as soon as the entrepreneurial function is performed. It attaches to the creation of new things...*” and further on (ibid., 75): “*Risk obviously always falls on the owner of the means of production or of the money-capital which was paid on them, hence never on the entrepreneur as such*”, and (ibid., 137) “*...even if the entrepreneur finances himself out of former profits, or if he contributes to the means of production belonging to his ‘static’ business, the risk falls on him as capitalist or as a possessor of goods, not as entrepreneur. Risk-taking is in no case an element of the entrepreneurial function. Even though he may risk his reputation, the direct economic responsibility of failure never falls on him*”. Kirzner (1973, 50-57) shares a similar view: an entrepreneur may receive entrepreneurial profit, capitalist may receive interest, and owner may receive quasi-rents for the functions they carry, even if they could be carried by the same actor. The entrepreneurial profit arises from the alertness-based discovery of “*situations in which he is able to sell for high prices that which he can buy for low prices*”, ultimately a discovery of sellers and buyers, “*discovery of something obtainable for nothing at all*” (ibid., 48). In his view, a profit based on this opportunity incurs no costs and risks: “*No investment at all is required; the free ten-dollar bill is discovered to be already within one’s grasp*” (ibid., 48). These views regarding risk are dubious, since the introduction of novelty always requires coping with some kind of a risk (also Eisenhower 1995, 69). Also entrepreneurs have sunk costs and opportunity costs in their risky engagements (cf. Cassar 2006, 628). *Having an idea or making an observation makes no entrepreneur, who is involved in the practical action by owning, initiating and managing an entrepreneurial project.*

economics does not exist without the “subjectivity” of the entrepreneur, each side let alone would not work. For the economic agency – working with an established market institution for the “existing” – the entrepreneurial agency aiming to introduce situational novelty is a frontier to be coped with. For the entrepreneurial agency – working with novelty – the “existing” of the economic agency is a frontier to be coped with. The entrepreneurial agency is not doomed to obey the deterministic, past or present based and externally set functions like her cousin economic agency, but has more situational freedom to move along the continuums of changeability, subjectibility and temporality. The object or vehicle linking these two agencies is the entrepreneurial project. This analytical dualism seems to be an appropriate metaconjecture for comprehending the economic prescription of the entrepreneurial agency.

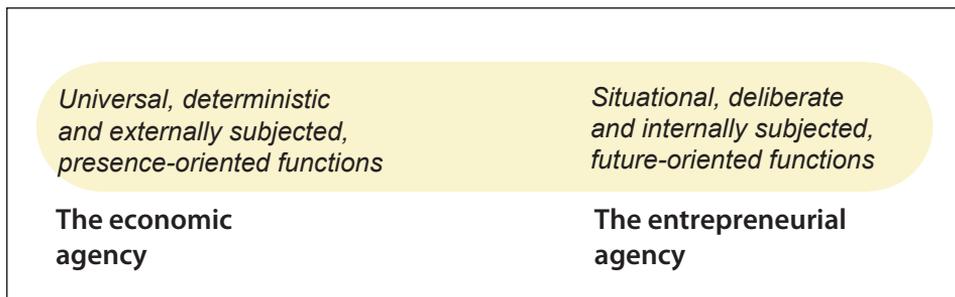


FIGURE 19 Duality of the Economic and Entrepreneurial Agencies

If the economic agency “puts into motion” the price-sensitive market transactions, its explanations have no grip on things which have yet to happen within this sphere, except for proving an expectation. If the markets or the market prices do not yet exist, they are hardly able for deterministic coordination asserted by the “givens” of economic theory (cf. Makowski & Ostroy 2001, 480). “New” – even if it was local – has not existed, happened or done before in its context (Baumol 1993, 199). If all agents only made fully rational choices, only their implementation errors would create structural uncertainty, and no one made *bona fide* uncertain decisions. If all the agents were relentless reactors in a continuous move toward optimum, the stability afforded by the slack, implicated by “satisficing” or maintained by routine and habit would hardly exist (Hodgson 1998, 43-45). If the entrepreneurial agency produced innovations continuously, the markets were never in “equilibrium” (Jacobson 1992, 787). If the economic presumptions were not held, some other tools or some additional analytical tools may uncover the “internal” dimensions of the entrepreneurial agency and not just its economic outcomes. The less orthodox economic conceptualizations allowing the existence of a real firm rather than just conflating it with a production function, may leave some role for the entrepreneurial agency, but it often remains vague, ill-defined or bundled with the other “resources”.

It is easy to conclude that the economic agency is for the *universals*, and the entrepreneurial agency is for the *particulars*. The economic agency is for the *existing*, and the entrepreneurial agency is for the *becoming*. The entrepreneurial agency introduces innovation projects for the “evolutionary test” by the aspirations. By

definition, such “new” is transitory, small and situational, new in time *or* place. This also means that the entrepreneurial agency is, indeed, decentralized in nature (also Holcombe 2000, 55). It is able to change the “structures” or the “structural inheritance” explicitly through the interface of *historical time*, so unknown for the economic agency (Solow 1985, 331), but so valuable for understanding the causes and momentum of change (Kelly & Amburgey 1991, 609). Instead of leaning on the “plug-and-play” operating system of the reality provided by economic theory, the entrepreneur faces rather a “plug-and-pray” situation while reaching toward uncertainty and novelty with her project. The entrepreneurial agency observes the “multiple-exit situations”, whereas the economic agency lives with the “single-exit situations” (see Latsis 1976, 16). Still, “it is not possible to have the one without the other” (Lawson 1999, 11).

It is not the aim of this study to claim priority for a single science or perspective in a truly interdisciplinary matter, however, but rather to try to position them around the topic of inquiry. If the economic presumptions of homogeneity in the behavioural prescriptions were held, one may regard the outcomes of the entrepreneurial agency as “emergent” or “embedded” products of the market forces without respect for their genuine origin or process of emergence. Beyond these presumptions and conditions, one should possess some aspirations, resources (including information) or behavioural abilities which others do not currently *or* locally possess, in order to be willing and able to introduce novel and risky innovation projects for the experimentation, in order to take up the entrepreneurial agency, to reach for the “premium on becoming different from pre-existing” (Mayr 1976, 21). Only heterogeneity creates an incentive, need, and opportunity for such. Even though some modifications, extensions or attachments for the corpus of economic view have considered heterogeneity of resources, they have bundled this with the entrepreneurial agency rather than establishing a link with it. Economic theory has avoided the need for endogenizing the real life “dirty” learning through experimentation by replacing the fallible humans with fully rational behavioural rules being able to learn “by avoidance, (without failing)” (Sitkin 1992, 236), without *meanings* of the full spectrum of economic, personal and social risks.

It is a great – and true – paradox why the science of economics discusses to such an extent the outcomes of entrepreneurial actions, with the entrepreneur completely lacking in the modern textbooks of conventional economics. The conventions of economic theory not *distinguishing between the real world and the decision maker’s perceptions of it* make it unnecessary (Hayek 1945, 47; Simon 1987, 27) in the deductivist account of the action, where universal rules applied to particular situations force out one particular outcome. The ant will do what the ant has to do. For taking up the entrepreneurial agency, one has to interpret the world, making calls for crossing the bridge into hermeneutics (Backhouse 1998, 98).

3.3.2 The Personal Prescription for the Entrepreneurial Agency

The Setting and the Proposals

The *situationally innovative, risky projects* have their origin in the entrepreneurial agency. Just as Schumpeter (1934, 78-79) proposes, “*everyone is an entrepreneur only when he actually ‘carries out new combination’ ... being an entrepreneur is not a profession and as a rule not a lasting condition ... the function of the entrepreneur itself cannot be inherited*”. One could add: being alert to or discovering an opportunity does not make anyone an entrepreneur (even though Kirzner [1985, 215] so proposes) without engaging oneself in action with the risky project. It is the thought *and* the action (c.f. Ward 2004, 185). *Entrepreneurial agency is transitorily attached to the individuals carrying out the entrepreneurial function.*

For any actor, the entrepreneurial agency is a risky role played with the purpose of introducing an innovation project. This role is taken and played by an individual or collective decision, intentionally.⁷¹ Intentions may arise in various ways (at once, incrementally) and have varying strength and quality (voluntaristic, deterministic). They are blended (emotional, cognitive, conative) and coherent ideas of committing to a specific action. In this respect, engaging with an entrepreneurial agency is also a very personal project of commitment and investment, risking one’s ability “to play it again”, to possess the entrepreneurial agency. Since the action is directed toward the unknown future, there is true uncertainty present. The future is unknown for all, but there certainly are some person-related forces that allow or constrain people from engaging with this kind of specific role. This is the broad starting point in the analysis of the personal case for the entrepreneurial agency.

The future may not be known. The analytical tools provided by conventional economic theory attuned to precision are wholly valid only when the “realized” will be the “expected”; otherwise the precision proposed is purely artificial. In reality, the would-be entrepreneur with her candidate for a project faces an uncertain future regarding herself (aspirations, abilities, resources), the project,

⁷¹ Intentions are widely studied as significant antecedents of the actual entrepreneurial behaviour (e.g. Bird 1988, 444; Bird 1989, 12; Bird 1992, 8; Dutta & Thornhill 2008, 323; Kolvereid 1996, 53-54; Krueger & Carsrud 1993, 323; Krueger et al. 2000, 423-424). Bird (1989, 8) defines intentionality of entrepreneurial behaviour as follows: “*Intentionality is a conscious state of mind that directs attention (and therefore experience and action) toward a specific object (goal) or pathway to achieve it (means)*”. Within psychology, one of the theories much used in this effort has been the Theory of Planned Behaviour (Ajzen 1991; Ajzen 2001; Ajzen 2002). It provides tools for investigating how behavioural beliefs (attitudes), normative beliefs (subjective norms) and control beliefs (perceived behavioural control) affect on the emergence of intentions, which are important antecedents and predictors of actual behaviour, accompanied by actual behavioural control. Similarly, Krueger (1993, 17) has proposed entrepreneurial intentions to be based on perceived desirability and perceived feasibility, along the propensity to act on them (control belief, or self-efficacy; Boyd & Vozikis 1994, 69). Experiences, perceptions and expectations in various forms are common ingredients of many achievement-related choices (e.g. Eccles 1994, 588).

the environment and their relationships (Figure 20). In reality, there may be differences of a degree (certainty, probability, uncertainty) depending on the domain in question, size of the effort, or length of the engagement, for example. *Confronted by these uncertainties and being energized and driven by aspirations, the would-be entrepreneur may have better or worse cues about the issues, may be more or less confident about them, and may be better or worse equipped for the exposure of their true validity.* It is the willingness and the ability of the entrepreneur. The role of individual differences also in these aspects of behaviour is most pronounced when the situation is both ambiguous and unstructured (Mischel 1973, 276).

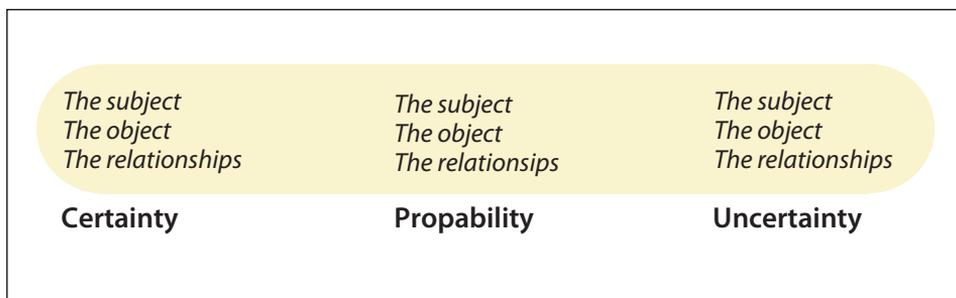


FIGURE 20 The Continuum between Certainty and Uncertainty

The willingness and ability of someone to take up the entrepreneurial agency, the “size” or “scope” or “impact” of the engagement is crucial and demands clarification. Shackle (1955, 63) distinguished between a unique trial (or experiment), an isolated trial, and a crucial trial. A *unique trial* has such unique effects on the life of the individual carrying it out that she does not consider it as a part of a larger whole (ibid., 63). An *isolated trial* is unique in time in such a way that the individual carrying it out does not consider it to be combined with other expected trials within her time-perspective. A *crucial trial* is unique in the sense that it effects the course of relevant events for the individual carrying it out: “by making it the individual gives himself a new set of circumstances and opportunities, so that it is logically impossible for him ever to repeat the experiment which brought this new situation” (ibid., 63). The “crucial” is present in most actions in the form of transformed “structural inheritance”, when new ground for future actions and trials becomes established. As with all aspects of social science, the borderline of an entrepreneurial role, the definition of engagement, or the criteria for a project is always based on *convention*. The conceptions presented by Shackle look promising for seizing the engagement with the entrepreneurial role and the accompanying project, possibly having some “*minimum scale for a fair trial*” (Casson 2003, 198).

The willingness and ability of any actor to engage oneself with this kind of a role and action has been studied widely within the field of *psychology*, which tells stories about the behavioural dispositions and cognitions related to the entrepreneurial agency. They provide personal descriptions of the recognized needs of the entrepreneurial roles. These roles – facing true uncertainty about the future – are proposed to be played especially by actors with specific *personality traits and motivational characteristics*: behavioural dispositions towards the need of achievement (Collins et. al 2004, 109), risk propensity (Stewart & Roth 2001,

149), role or task specific self-efficacy (Chen et al. 1998, 301, 30) and internal locus or feeling of control of the surroundings (Cromie 2000, 18), independence (Brandstätter 1997, 169-170) and creativity (Heunks 1998, 268, 270), for example. People (also the would-be entrepreneurs) tend to give different weight for not just income or wealth, but also for status, recognition, roles following, challenge, personal development or learning, variation of life, autonomy, and many other factors comprising their diverse “entrepreneurial aspirations” (Carter et al. 2003, 30; Hessels et al. 2008, 335; Kolvereid 1996, 51; Shane et. al 1991, 436; Shane et al. 2003, 274). The aspirations may be also “dark” and far from “rational” (Beaver & Jennings 2005, 19-20). As the performer knows she may have rotten tomatoes thrown at her or may experience a moment of glory, the psychological structures and processes of the kinds may play a role. Even though the views of the role of personality are very mixed (cf. Rauch & Frese 2007, 354) and easily become fused by experiences and sorting biases in *ex post* studies (Caliendo & Kritikos 2008, 190), the inclination to search for the fulfilment of one’s specific *aspirations* by taking up the entrepreneurial role may, indeed, have some background in possessing these traits, at least in specific situations (Rauch & Frese 2007, 375). “*Psychological antecedents appear to be associated with entrepreneurial aspirations*” (Stewart et al. 1999, 204).

On the other hand, entrepreneurial roles are also proposed to be played especially by actors possessing specific *cognitive characteristics*: specific abilities or qualities related to unconventional perception or recognition (Shane 2000, 465) or “alertness” (Kirzner 1973, 35), representativeness bias and positively biased categorization heuristics (Busenitz & Barney 1997, 22; Keh et al. 2002, 136; Palich & Bagby 1995, 433), intuition (Allinson et al. 2000, 41; Bird 1989, 9), and efficient experience-based learning abilities (Minniti & Bygrave 2001, 13), for example. Specific cognitive abilities or “scripts” may play a “universal” role behind engagement with an entrepreneurial role (Mitchell et al. 2000, 986). However, the relationship between the cognitions and innate traits remain vague. For example, the observed risk propensity of the entrepreneur – often considered as a *trait* – has been proposed to *originate* from the *cognitive* biases of overconfidence, illusion of control and belief in the law of small numbers while drawing conclusions (e.g. Simon et al. 1999, 125). In any case, also these kinds of predispositions and abilities related to the *behavioural systems* may provide some explanation for the diverse propensities, thresholds and commitments for taking and playing the entrepreneurial role in an uncertain situation (DeTienne et al. 2008, 541; Gimeno et al. 1997, 774; Mosakowski 1998, 627).

Aside from the personal traits and cognitive inclinations and abilities, the idiosyncratic knowledge, experience and skills are envisaged to have effects on the probability and conduct of the entrepreneurial role. They should probably be comprehended as a pool of *information*. “General human capital” (e.g. general education and training; Becker 1993a, 17) is often observed to serve identification of the opportunities for taking up the role rather than to predict the actual success in the consequent performance (Davidsson & Honig 2003, 316, 319, 321-322). The somewhat more contextual “special human capital” (e.g. start-up or industry experience) is observed to serve exploitation of opportunities (Erikson 2002, 286; Haber & Reichel 2007, 132; Ucbasaran et al. 2008, 165, 168; Westhead et al. 2005,

125). These are concepts which are more or less related to *resources* as possession of some specific useful information or knowledge (Shane & Venkataraman 2000, 222) acquired by investing in them (Becker 1993b, 392), but the concepts tend to fuse them with skills or behavioural habits and routines, making the bundled concepts a bit vague.

The Slippery Entrepreneurial Agency

If the economic agency told stories about *when* to play the entrepreneurial role, these person-related views may help to find out "*how and why*" (Mitchell et al. 2002, 94) to play it. The concepts discussed above are common candidates for the universal antecedents of the willingness and ability to perform as an entrepreneur, to take up the entrepreneurial agency. These inclinations to take up and succeed in this role are, however, probabilistic at most, since no human being is born with the deterministic label of "successful entrepreneur" in her diapers, ready to perform in the unknown future arenas of performance. Few are born with "entrepreneurial" aspirations. Any accumulated experience is not a guarantee for winning true uncertainty, either. In reality, the willingness to perform on the stage of entrepreneurial performance may arise unexpectedly or even accidentally (Görling & Rehn 2008, 102), may arise from improvisation (Hmieleski & Corbett 2006, 58), or consolidate after careful "rational" planning (Schamp & Deschoolmeester 1998, 146, 173).

The diverse empirical and theoretical notions of the magnitude and endurance of the entrepreneurial role do not make the conclusions about personal matters any easier: we may deal with a specific show (e.g. "discovery of opportunity"; Kirzner 1979, 215; Yu 2001b, 48), a set of shows (e.g. "habitual entrepreneurs"; Ucbasaran et al. 2006, 4), or a solid engagement (e.g. "continuously innovative"; Alvarez & Businez 2001, 765). As such, *the transitory nature of the uptake and the situational nature of the conduct are the major challenges for the universal person-related explanation for the entrepreneurial agency*. The borderline between innate traits and the social construction of personal attributes is fuzzy.⁷² Also every show is different and may change aspirations and their reference points or thresholds (e.g. Kahneman & Tversky 1979, 286-288; Knudsen 2008, 24) by modifying the "structural inheritance". In that sense, one should "generalize about uniqueness" (Gibbert 2006, 128) to give a universal explanation for the personal prescription for a situational phenomenon. *Intentions* may serve as a middle-range solution, bridging internal inclinations and external influences. As belief—desire

⁷² The various *single- and multi-trait theories* attribute many general and consistent behavioural dispositions to these traits (though often observed through the behavioural outcome they are thought to effectuate). Also *situationism* finds its place among the psychological explanations. For example, social learning theory posits the behaviour to be primarily determined by situational factors [where cognitions mediate external causes] and not so much by personality traits (Michel 1973, 265, 276). Furthermore, *interactionism* conceives the behaviour to be a product of interaction between the situation and the personality (Bowers 1973, 327). This comes close to the *constructivist* view of personality, locating it rather among or between persons (as a social product) than within them (Hampson 1988, 205-206).

configurations, reflecting willingness to bear perceived uncertainty (McMullen & Shepherd 2006, 149), they may be of varying endurance, strength and context-specificity. To study willingness to play, one may study intentions regarding their formation, endurance, strength, context-specificity and realization – in this framework, their changeability, subjectibility and temporality.

Indeed, much of the controversy concerning the personal aspects seems to arise from the attachment of the entrepreneurial agency to the individual. Is it a permanent, cumulative or periodical attachment we are dealing with? This seems to be the specific frontier problem of the psychological and personal explanations, often conflating the person and the entrepreneurial agency. If the entrepreneurial agency and the person were separated for analytical purposes (analytical dualism), along what bridges should one travel between them? Which kinds of structures and processes attach an individual to an entrepreneurial agency, with what endurance, strength of tie, and performance implications? Economic theory has solved this problem by dismissing individual heterogeneity: there is no personal attachment at all; there is only attachment with the behavioural rule. The desire for the universality in the personal explanation will face a frontier problem caused by the transitory and situational nature of the entrepreneurial agency. Even if the behavioural or cognitive traits were somewhat enduring dispositions (e.g. “new transaction commitment mindset”; Smith et al. 2009, 820), their fit with the enormous diversity of the situations is hard to establish empirically and, at least, such a fit is unlikely to be fully deterministic and universal. Robust and stable, dimensionally overarching and forever performing “entrepreneurial personality” (Mitchell. et al. 2002, 93) hardly exists. Who can be situationally universal? Consequently, the explanations for the role uptake or success, based on some enduring predispositions, have been mixed (e.g. Gartner 1988, 25-26; Low & MacMillan 1988, 148).

Facing the problem of transitivity, what in general can be said about the willingness and ability to take up the role of carrying the entrepreneurial agency to introduce a risky, novel project? Let us return to the nature of the *entrepreneurial decision* in the heart of the engagement. Kirzner (1973, 50-51) frames it within the economic sphere:

“To the extent that we wish to view the entire venture as an entrepreneurial one, we must focus attention on the entrepreneurial decision responsible for the venture. This decision was made before the original act of purchase; in fact it was a decision to buy in order to sell subsequently ... The surplus of selling price over buying price is indeed pure profit if it is related back to the original entrepreneurial decision. This surplus, however, is not to be viewed as entrepreneurial profit if we confine our attention solely to the later decision, the decision to sell at the later date. At the time of the sale, the owner-entrepreneur is free to abandon the originally formulated entrepreneurial plan, which called for selling at the present time. His final decision to sell, therefore, is made quite independently of the original plan to sell; this later decision is then the decision made by an owner.

... In other words, the correct theoretical characterization of a particular receipt depends on the character of the decision responsible for that receipt. An where, as is frequently the case, a particular receipt is the consequence of more than one decision, each of which was required before the receipt could materialize, then the economic character of the receipt itself depends, for the purpose of any given discussion, upon which of the contributing decisions it happens to be referred to in that discussion.”

In this view, an *entrepreneurial decision* is futuristic in nature and its outcomes (fulfilling entrepreneur's aspirations) should be observed from the entrepreneur's point of observation only within the boundary of the engagement. *As long as she carries the risks of this effort, we can discuss entrepreneurial engagement.* Our notion of a risky innovation project seems very useful here. Being willing and able to make entrepreneurial decisions is related to the willingness and ability to cope with the future and uncertainty. This willingness and ability has been related to, especially, *judgemental decision-making* (McMullen & Shepherd 2006, 134) and *creativity* (Ward 2004, 185). They both facilitate and frame partly "rational", partly intuitive cognitive behaviours (Boyd & Vozikis 1994, 65; Krueger 2007, 131-132; Sadler-Smith 2004, 177) toward these kinds of decisions. *"Business people realize that it is futile to search for the best plan, for the future is to a large extent inherently unpredictable"* (Ormerod 1998, 189).

Facing no solid ground for the "known", judgemental decision making may be based on idiosyncratic traits and (possibly biased) cognitions, and may utilize less universal "strategic reference points" (Fiegenbaum et al. 1996, 228; Shoham & Fiegenbaum 2002, 128) or lean on shared institutions (North 2005, 62) in guiding the effort. In uncertain situations, individual differences may play a pronounced role regarding behavioural dispositions and cognitive styles (Mischel 1973, 276). In this effort, creativity may manifest itself as a novel combination of some separate components or may use of analogies to transfer familiar knowledge to a new domain of application (Ward 2004, 177, 180). Creativity, based on the internal and external ingredients, is the first step of active behaviours in the production of innovations (Amabile et al. 1996, 1154-1155), toward our risky innovation projects. It is a manifestation of the pronounced role of the system of generation within the personal agency reaching toward the entrepreneurial role. Accumulated self-efficacy, specific to judgemental and risky decision,⁷³ may facilitate the

⁷³ *Prospect theory* of risky decisions, developed by Kahneman and Tversky, is a descriptive theory which steps away from normative conventional *expected* utility theory, lacking any framing effects, nonlinear preferences, source dependence and the possibility of risk seeking and loss aversion (Tversky & Kahneman 1992, 298, 317). Prospect theory is based on 1) framing the risky decision in terms of gains and losses of the risky component of the prospect (rather than final assets) and on 2) evaluating these on the basis of decision weights (rather than probabilities; Kahneman & Tversky, 1979; 274; Tversky & Kahneman 1992, 301). The S-shaped (rather than linear) value function translates the outcomes above the reference point (the status quo, an expectation or an aspiration level) as gains and those below it as losses, and due to its shape this reflects risk aversion in gain situations and risk seeking in loss situations while close to the reference point (Kahneman & Tversky 1979, 279), and a principle of diminishing sensitivity when distancing from the reference point (Tversky & Kahneman 1992, 303). Thus the model requires formulation of a value function to define *"the best overall 'something'"* (Li 1996, 356). The weighting functions are inverse S-shaped, overweighting small probabilities and underweighting high probabilities (Tversky & Kahneman 1992, 316). Based on this kind of logic, troubled firms may be inclined to engage in risk seeking behaviours to compensate for previous poor performance, using the status quo as a reference point (Lee 1997, 73).

Also individuals may seek risk after making an initial investment *"in money, effort, or time"* causing sunk costs, which keep up a *"desire not to appear wasteful"* (Arkes & Blumer 1985, 124-125). *"Person who has not made peace with his losses is likely to accept gambles that would be unacceptable to him otherwise"* (Kahneman & Tversky 1979, 287). This comes close to the formulation of Simon (1955, 104-

process (Bandura 1997, 57; Chen et al. 1998, 308; Hmieleski & Corbett 2008, 490; Koellinger 2008, 31-32; Zhao et al. 2005, 1269), but also self-organization of purely psychological defences may lead to the same result (Goldberg 2000, 139), both being related to the system of coherence.⁷⁴ An intuitive vision may govern the action and become elaborated through the action (Johannisson 1987, 51). Basically anything that may enhance or enforce reliance on the uncertain cues may count for a positive decision: push of a blind desire, biased observation, emotional or “rational” capability belief, slack for covering possible losses, external support, etc. – and vice versa for a negative decision.

105), when persons translate outcomes as “satisfactory” when they are above the “aspiration level” and as “unsatisfactory” when they are below it. Reference points may, indeed, be single or multiple in numbers. In quality, they may be, for example, goals (Heath et al. 1999, 98), “the performance of superior others” (March & Shapira 1992, 181), or outcomes of the alternative choices open to oneself, introducing an element of opportunity cost, regret (Loomes & Sugden 1982, 808) and counterfactual thinking where upward or downward counterfactuals may serve future intentions or actions (Roese 1997, 134-135). Reference points may be activated *ex ante* or *ex post*, recruited as stimulus-based norms evoked by experiences of objects and events, or as category-based norms evoked by references to certain categories (Kahneman & Miller 1986, 137-138). In extreme cases, the reference points may lead to judging a losing decision to be better than a winning one, due to extreme salience of the reference point (Boles & Messick 1995, 270, 273). Generally, the existence of sunk costs may increase the actor’s estimated probability that the endeavour will succeed along post hoc rationalization and justification (Arkes & Hutzler 2000, 303). Even in the case where escalation to a course of action envisaged by the committed project may not be the only option to cover the sunk costs, people responsible for them may still be inclined to the escalation of commitment, to entrapment (cf. Schaubroeck & Davis 1994, 60, 77).

These are all examples of decision-making practices that violate the Von Neumann – Morgenstern (1953, 8-9, 16-17) axioms of rationality (expected utility). *The reference point effect* (valued on the basis of reference point rather than total wealth), *the sunk cost effect* (taking foregone costs into account), *the endowment effect* (goods in the endowment are valued higher than those not held), *framing effects* (formulation of the problem, presentation of the information), *availability bias* (recent, spectacular and personally experienced is overweighted), *representativeness bias* (misconceiving prior probabilities, insensitiveness to sample size), *opportunity cost effect* (out-of-pocket monetary costs have a higher weight than similar opportunity costs) and *certainty effect* (certain outcomes have a higher weight than uncertain outcomes even with same known expected utility) can have this effect (Frey & Eichenberger 1989, 424). These ideas – deviating from standard rationality – may capture some elements of the entrepreneurial choices at the general level, even though any maximization hypothesis attached to the value function has raised doubts (e.g. Li 1995, 462), as well as the framing of one risky choice (escalation) in relation to another risky choice (non-escalation; Kuhberger 1998, 43). Non-conforming empirical results exist, however, when small firms – but not large firms – below aspirations level for performance were risk averse (Audia & Greve 2006, 91-92). The prefixed preferences (S-shaped value function) also pose the same problem of assumed behaviour (Roy 1995, 172) as that underlying neo-classical economics. But more importantly, it is also one thing to speculate about tossing a coin or splitting a penny or to collect students’ imaginations (cf. Hodgkinson & Maule 2002, 204), and another thing to engage oneself with real action risking one’s welfare. Unfortunately, the “laboratory of real life” is not an easy case for explicit risk observation and experimentation.

⁷⁴ Interestingly, Johannisson (1987, 51) places the guiding vision to the less visible back stage, just as our analytical structure places the system of coherence: “*The entrepreneur’s personalized order is often hidden even from the entrepreneur himself.*”

Medical decision-making has a very long tradition of decision-making under uncertainty. Hammond (1996, 281) has revealed two paradigms behind evaluation of performance in such an effort, based on the coherence metatheory or correspondence metatheory. The *coherence metatheory* proposes to focus on the rationality premises of the decision, as to whether the decision is consistent with those standards, independently of its empirical accuracy (*ibid.*, 281-282). This resembles classical decision theory and the prescribed rationality of the decisions by the economic agency (Cooksey 1996, 27; March 1994, 4) as how people *should* behave. The *correspondence metatheory* proposes to focus on the empirical accuracy of the decision, irrespective of the rationality of decision-making (Hammond 1996, 281-282). This resembles the lens-model of judgemental decision making under uncertainty, utilizing fallible indicators of the reality and confessing biases of the decision-making (Cooksey 1996, 61), as to how people *actually* behave. Those relying on the coherence metatheory should learn to meet the standards of rationality for justification, whereas those relying on the correspondence metatheory should learn the ecological and utilization validity of their cues without reference to justification (Dhami et al. 2004, 961; Hammond 1996, 283; also Popper 1963, 308). Hammond proposes that the two metatheories could be used rather complementarily than in isolation: first to arrive to a descriptive judgement by the correspondence metatheory and then into a prescriptive final choice by the coherence metatheory (Hammond 1996, 285).⁷⁵ If the cues are somewhat reliable and the breath of knowing (multidimensionality) is accompanied by limited depth of knowing, the ignorance-driven decision making may produce even superior performance compared to more complete knowledge (Frosh et al. 2007, 1336).

Abstracting from these ideas, the entrepreneurial agency facing true uncertainty will employ the correspondence metatheory, whereas the economic agency – relying on rationality – will employ the coherence metatheory (Figure 21). Simple situations may be solved by the “*technologies of rationality*”, but in more complex situations “*exploratory foolishness*” may be the only choice (March 2006, 201, 211). While facing true future uncertainty, one does not even necessarily know how much effort is needed to discover the actual state of the reality (cf. Earl 1990, 721).

⁷⁵ This has similarities with the early notions of the two separate judgement processes of making “not merely forms the best estimate he can of the outcome of his action, but he is likely also to estimate the probability that his estimate is correct” (Knight 1921, 226-227). It also features the generation-selection and coherence sub-systems of our analytical structure of the agency.

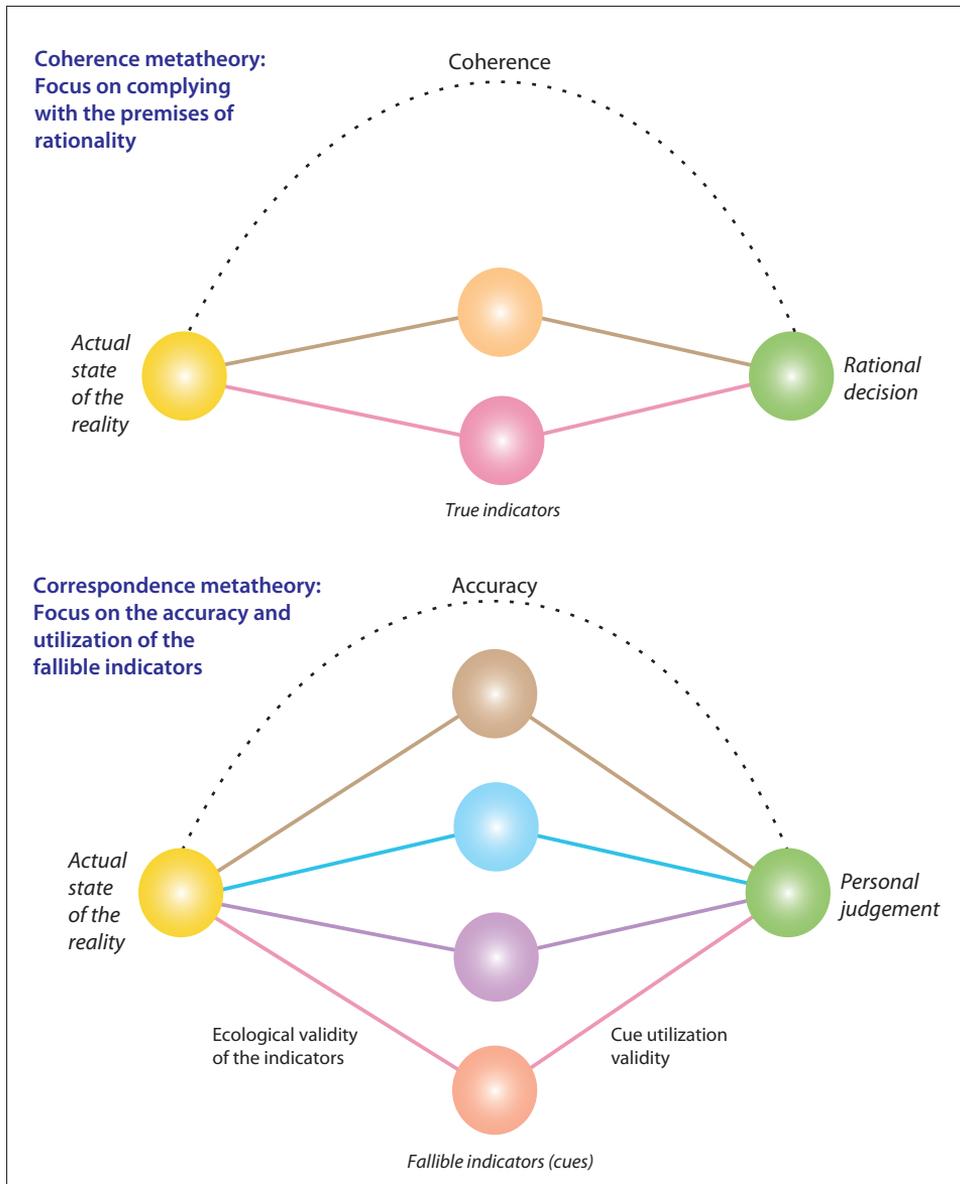


FIGURE 21 The Coherence and Correspondence Metatheories Featuring Different Decision-Making Situations and Evaluations. Own Illustration for the Coherence Metatheory; Adapted from Hammond (1996, 282) and Cooksey (1996, 61) for the Correspondence Metatheory.

The entrepreneurial agency works on the *continuum* between knowledge and ignorance, and is exposed to the specific types of ignorance.⁷⁶ *The various ingredients of the person-related explanation for someone taking up the entrepreneurial agency and engaging with such an action may become framed by the kinds of cues that are used in this regard; why, how, and with what consequences.* Essentially, since the future is unknown, their accuracy may be observed only after *commitment* to the action (Fichman & Levinthal 1991, 445). Irrespective of the precise qualities of uncertainty, it has implications (McMullen & Shepherd 2006, 135).

By the dispositional approaches discussed above, the occurrence of the entrepreneurial decision, choice or judgement may be surrounded by some sort of a probabilistic frame, constructed on the basis of the quality of existing information, but the size and scope of the decision remains emergent. Generally we try to frame the emergence of something partly controllable, partly contextual and partly rational with a fully rational explanation. *The conventional tools for attaching the entrepreneurial agency with a person are not very complete.* As Thomas confesses (1994, 236): “... we cannot say with great confidence that we understand the elements or their interaction ... we suffer from an inability to control the context adequately; and even if we could, the exercise of that much control could prevent the occurrence of the very thing we want to happen”. The ways people interact with each other and with the environment at the micro-level under uncertainty, cannot become captured exhaustively by a universal, deterministic explanation. Any explanation of an entrepreneurial decision asks for dancing on the edge of personal or situational attribution error, risk of a flawed credit (Dimov 2007a, 713). In different realms, very different behaviours may be regarded as entrepreneurial (van Gelderen 2000, 87). Specific dispositions only make sense in specific contexts, tasks and environments (Utsch & Rauch 2000, 46).

The dispositional traits or cognitions are latent potentials as long as they are not activated (Krueger & Brazeal 1994, 91-92). They are energized by the personal aspirations of the would-be entrepreneur. Then the aspirations may be triggered

⁷⁶ Smithson (1985, 154) makes a distinction between the *informational aspects of knowledge* as knowledge of the world, and *knowledge-producing aspects* as processes of arriving at conclusions. He defines two main types of ignorance: “*erroneous*” and “*irrelevant*” ideas (ibid., 154). Erroneous cognitions may be further divided into *distortion*, often unconscious substitution of a “wrong” for a “correct” one; and *incompleteness*, often conscious ignorance. Incompleteness may be further divided into three subtypes: *omission and absence* (“correct” cognition is entirely missing), *vagueness and fuzziness* (ideas that are imprecise according to some standard of precision), and *ambiguity and inconsistency* (oscillation between alternative interpretations; ibid., 155).

The other main type of ignorance, irrelevance, may be divided into *topical irrelevance* (intuitions about how the various bits of the knowledge worlds fit together), *undecidability* (being unable to designate true or false because the question of verification is not pertinent, like in fantasy or meaningless things) and *taboo* (enforced kind of irrelevance meant not for people to know; Smithson 1985, 155). Virtually all roles drive people towards ignorance by requiring *selective attention* and by the *privacy and secrecy* arrangements (ibid., 166; compare with front and back stages in our analytical structure). Various types of ignorance may play a different role. The main point of Smithson is that “*ignorance is multifaceted, and its role in social life often is not the opposite of the role of knowledge*” (ibid., 168).

to turn into specific intentions (Cromie 2000, 25), which may or may not turn into specific action by a risky decision. The more rare and uncertain the action, the more pronounced the role of intentions as compared to (habitualized) past behaviour (Ouellete & Wood 1998, 64). The aspiration–performance interaction will be moderated by the resources and behavioural systems. As we have learned, *the decision of engagement with the entrepreneurial agency means commitment to an uncertain course of action, the implications of which may be consulted only through cues; thus such a decision is vulnerable and exposed to many kinds of emotional, cognitive, behavioural, social and economic influences, rather than prescribed by some fully known factors consolidating an explicit rational decision.* So, essentially we discuss an entrepreneurial choice, a judgemental decision, or a risky commitment when we try to describe the basis of the analytical structure for the relationship between the person and the entrepreneurial agency.

There are approaches that try to avoid fully “black-boxing” the premises or the implications, but rather try to take an interactional view. *A premise-based rational choice as a concept does not integrate any of the outcomes of the choice with the actor involved. An entrepreneurial choice unavoidably carries some endogenous significant implications for the actor.* Such an engagement between the person and a situation to introduce novel and risky (entrepreneurial) innovation projects has been or could be structured as “effectuation” (Sarasvathy 2001), “enactment” (Gartner et al. 1992), “entrepreneurial bricolage” (Baker & Nelson 2005); “entrepreneurial learning” (O’Driscoll, Jr. & Rizzo 1996), “adaptive learning” (Easley & Rustichini 1999), “fast and frugal heuristics” (Gigerenzer & Goldstein 1996), “evolutionary game theory” (Young 1998), “garbage can model of choice” (Cohen et al. 1972), and “muddling through” (Lindblom 1959), for example.⁷⁷ All these approaches may

⁷⁷ The concept of *effectuation* emphasizes control rather than prediction of future events; the action is based on the ingredients at hand, on sphere under control, on affordable loss or acceptable risk, and on current construction (or co-creation) of an opportunity to act rather than its heuristic identification (Read et al. 2009, 573; Sarasvathy 2001, 251; Wiltbank et al. 2006, 991). Effectuation makes a distinction between the effect-dependent “rational” logic of causation (utilizing knowledge by exploitation) and the actor-dependent “control” logic of effectuation (utilizing contingencies by creation; Sarasvathy 2001, 254; Wiltbank et al. 2006, 998). Goals are created endogenously by the actor and the environment is only partially constructed (Sarasvathy 2001, 256). Sarasvathy (2001, 252) further maintains that: “*to the extent that we can control the future, we do not need to predict it*”. With some liberalism, the effectuation relates to the governance view and causation to competence view (comp. Williamson 1999, 1106).

The concept of *enactment* aims to consolidate a process, where an environment to be coped with is first conceived of and then acted, interpreted and managed: “*People ... repeatedly impose that which they later claim imposes on them*” (Weick 1979, 153). When the environment is unanalyzable rather than measurable and deterministic, it is enacted through ad hoc and improvisational interpretation (Daft & Weick 1984, 287). This behaviour generates responses that may provide interpretation of the initial action, paving the way for the next action in the process of emergence (Gartner et al. 1992, 18): “*Enactment, then, is an ‘as if’ phenomenon. Emergence begins with enactment. Equivocal behaviours are offered as a way of encouraging responses ... Entrepreneurs face a wide variety of equivocal situations in the process of organizational emergence*”. In this way, by working the way out toward the unknown environment, enactment produces variation for the various selective forces to operate (Weick 1979, 130-131).

The *entrepreneurial bricolage* describes making do with what is at hand (Baker & Nelson 2005, 353). While facing a penurious environment, an actor may seek resources, avoid the challenge, or engage

frame and describe specific ways of probing into the unknown future (ignorance) interactively, outside the normative ideal of full rationality. In these, the “focus-gain” (Shackle 1955, 65) is driven by some other topic rather than a fully-fledged “rational” plan balancing the means and the ends; the future uncertainty is agreeably left “grey-boxed” with some fuzzy aspects. Implicitly, the models try to overcome the strict agency – structure divide of the rational posture (cf. Gorton

in a bricolage to “create something from nothing” (ibid., 353-354). By making do what is at hand “as a contingent result of all the occasions there have been to renew or enrich the stock or to maintain it”, one may take a large number of diverse tasks (Lévi-Strauss 1966, 17). The bricoleurs’ limited “resources” are comprised by the “repertoire” at hand, “because it has nothing else at its disposal” (ibid., 17). The diverse tasks are completed by combining the resources for these new purposes, disregarding conventional limitations and “trying out solutions, observing, and dealing with the results” (Baker & Nelson 2005, 334). The resulting outcomes may not be optimal, but they may “do their job and can be improved” (Lanzara 1999, 347). A bricolage may relate to both improvisation (Miner et al. 2001, 314) and careful planning (Baker et al. 2003, 265). It may consider an entrepreneur as a “Jack-of-all-trades”, exhibiting flexible ability to cope with broad variety of activities and situations, backed up by a generalist’s rather than by a specialist’s experience (Boccardelli & Magnusson 2006, 171; Lazear 2005, 651, 676; Wagner 2006a, 2419).

The notion of *entrepreneurial learning* (within the Austrian school of economics) emphasizes (in our terms) varying changeability (O’Driscoll, Jr. & Rizzo 1994, 37-38: “Theories about genuine learning cannot be deterministic. If we try to force learning into such mold, we shall lose any notion of creative response ... The process of entrepreneurial learning is neither determinate nor random ... this ‘in-between’ world of plastic control”). The concept of *adaptive learning*, in turn, illustrates a process in which the decision-maker is neither able nor willing to model a complex problem as clear states, actions and impacts, but *adapts her preferences* (or ideas of probabilities) by realizing the actions and evaluating their outcomes within the set of actions she can take (Easley & Rustichini 1999, 1158, 1179).

People may cope with uncertainty also by “fast and frugal heuristics” following “bounded rationality”, given that they do not possess supernatural powers of reason, limitless knowledge and endless time for being “rational” (Todd & Gigerenzer 2000, 729). Then, people use simple search rules, simple stopping rules and simple decision rules (Gigerenzer & Selten 2001, 8) in making ignorance-based or one-reason choices, utilizing elimination models of categorization or applying “satisficing” heuristics for sequential search (Todd & Gigerenzer 2000, 732-736). “The starting point for the study of heuristics is the relation between mind and environment rather than between mind and logic”, posits Gigerenzer (2008, 7). Heuristics, as compared to the “rational” global calculus, thus benefits from the skewed distributions of information commonly found in the real-world environments by taking “fast and frugal” advantage of the noncompensatory information (when potential contribution of each new cue falls off rapidly), scarce information (when few cues are known relative to the number of objects), J-shaped distributions (when criterion for the choice has many small values and few high values) or decreasing populations (when alternatives for the choice constantly shrink; Todd & Gigerenzer 2000, 736).

“Evolutionary game theory” makes a distinction between traditional and evolutionary game theory in several respects: players are not fixed but coming from a pool of potential players, the probability of interaction depends on the exogenous factors (e.g. proximity), agents have limited rationality and information, and random perturbations arise from the exogenous shocks or when unpredictable behaviours maintain flux (Young 1998, 6). Modelling interactive behaviours based on these premises is appropriate in the self-referential social systems (Young 2004, 2): “When the observer is a part of the system, the act of learning changes the thing to be learned”.

The “garbage can model” describes choice situations, where preferences are problematic, technology is unclear or participation in making a choice is fluid; when problems and choices become partly

2000, 276), basing on the deduction of optimal means to maximize the expected utility residing in the given structures.

In the engagement with the entrepreneurial agency, the initial inputs are *ex ante* more conceivable than the outcomes. The engagement may succeed or fail or be given up or suspended.⁷⁸ The actions of the others may have an expected

disconnected (Cohen et al. 1972, 16). Choices are made only when the shifting combinations of problems, choices and decision makers “happen” to make the action possible (ibid., 16). The “*muddling through*” in decision-making illustrates how one proceeds to the desired direction by making successive limited comparisons (Lindblom 1959, 81) and by choosing ends and means for each trial simultaneously rather than sequentially (Lindblom 1959, 82), making the process partly inert (Dror 1964, 156) and path-dependent.

⁷⁸ This specific quality of choice, important in comprehending the entrepreneurial choice, has been framed by *real options reasoning*, when “*the skills, experience, and luck of the entrepreneur have endowed him with an investment opportunity in a risky project*” (Grenadier & Wang 2007, 3). The options derive from the world of finance. Concomitantly, they have mostly been dealt with economic ideas (e.g. Dixit & Pindyck 1994; Roberts & Weitzman 1981). “*The investor makes a small investment to buy the option, holds it open until the opportunity arrives ... and finally decides between striking the option to capture the opportunity or abandoning it*” (Bowman & Hurry 1993, 761). In this study, however, the choices, even if considered as options, are regarded as *multidimensional*, having economic, psychological and/or social dimensions.

Myers (1973, 155, 163) considered the firm to be composed of two distinct asset types: real assets “in place” (having market value independent of the firm’s investment strategy) and real options as “growth opportunities” (as opportunities to purchase real assets on possibly favourable terms, depending on their value and firm’s investment strategy). A *call option* prescribes a choice of commitment: “*It gives us the right (which we need not exercise) to make an investment expenditure (the exercise price of the option) and receive a project (a share of stock)*” (Dixit & Pindyck 1984, 30). Exercising the option is an irreversible decision: “*Although the asset can be sold to another investor, one cannot retrieve the option or the money that was paid to exercise it*” (Dixit & Pindyck 1984, 9). The project may be non-tradable due to, for example, idiosyncratic attachment with the abilities of the entrepreneur or asymmetric information that causes a “lemons” problem where one is able to observe the “quality” only after commitment, by experience (Akerlof 1970, 488, 495; Grenadier & Wang 2007, 3). For reasons of (complete) irreversibility, engaging with an entrepreneurial agency and an innovation project causes sunk costs: the initial economic, personal and social-institutional costs arise from obtaining an opportunity for the project: costs of constructing the project up to the point where it becomes objectively observable for others and becomes subjected to the economic and institutional forces. But, on the other hand, once the project is set up, it allows further investments and operations by committing to the course of action.

One cannot calculate a precise net present value for such a project because of future uncertainty and possibility to delay the investment for the project (Dixit & Pindyck 1984, 135; Luehrman 1998a, 52). The conventional investment rule is based on net present value (NPV) of the investment, which is the difference of the present value of returns and expenditures of the project (e.g. Brealey et al. 2009, 15). If the difference is positive, the investment is profitable. Real options reasoning may be applied to a single choice or to a series of choices “*on whether and how to proceed with business investment*” (Smit & Trigeorgis 2004, 93), like growth of a (small) firm as a serial uptake of strategic (call) options (Bowman & Hurry 1993, 768; Luehrman 1998b, 90; Scherpereel 2008, 464; Trigeorgis 1996, 9) by finding, deferring, exercising and abandoning strategic options as risky steps in the labyrinth of options and choices comprising a “project management strategy” (Smith & Nau 1995, 797). How far each project as an option could fulfil one’s aspirations, what commitments (economic, psychological and social “sunk costs”) it may require, and how the risks are assessed by the behavioural systems, are idiosyncratic processes within the entrepreneurial agency.

or an unexpected impact.⁷⁹ For this kind of an engagement, the personal agency may play a crucial role, when “*certain strategic avenues, more than others, have the potential to capture a particular entrepreneur’s imagination and to focalize his or her energy and resources*” (Kisfalvi 2002, 514). A systemic view and understanding is necessary in order to arrive at some specific action, since “*even if the mind has*

In the rational context, higher uncertainty implies higher risk and higher potential value of the option (McGrath 1999, 26), when the potential gains grow, but not the potential losses. It may, however, dissuade the start-up of the project, just as strong irreversibility; the associated cost may be offset by the accumulated knowledge during delaying (O’Brien et al. 2003, 526-528). Risk aversion and idiosyncratic (unhedgable) risk may erode the value of the option and lower the investment threshold, why also “entrepreneurial” projects that should be abolished under conventional wisdom of complete markets may be taken up (Henderson 2007, 105). Depending on the subjective preferences, different temporal engagements for the project may be found (Grenadier & Wang 2007, 5). As such, real options reasoning provides an analytical tool for considering changeability (aspirations, portfolio of options for the projects), subjectivity (subjective valuation of the “sunk costs”, pay-offs and risks of the project; external opportunities, interest rates, competition etc.) and temporality (accumulated abilities and resources to set-up and manage the project, time-preferences regarding pay-offs and costs, endurance as engagement and resistance against imitation, latitude for exercising the option for the project, etc.) of the innovation projects by the entrepreneurial agency. But when the future uncertainty – including the amount and timing of the expenditures (Luehrman 1998a, 66) – may not be known (even as probabilities or “variance”!), the benefit of the model in truly uncertain projects lies in scenarios and speculations (cf. Adner & Levinthal 2004, 77). In reality, entrepreneurs probably “satisfice” their accounts for the projects by judging the underlying dimensions (economic, personal, social) rather than virtuously making precise global calculations, why some sort of real options reasoning and metaphor rather than real options mathematics is applicable in these situations (also Barnett 2008, 608). For a unique, novel and once-in-a-lifetime engagement with the entrepreneurial agency or its major project, the nice figures capturing the future may not exist.

⁷⁹ A tool much used to study these kinds of commitment situations is *game theory*. Conventional game theory, however, presumes the payoff matrix either as “givens” or as probabilities to define the optimum strategy for the game, which may form a Nash equilibrium providing a mutually optimal choice, when the other’s choice is considered as given/fixed choice or as a given/fixed probability among the choices (e.g. Varian 2006, 505-508). An entrepreneur may think about the future as probabilities, but essentially she is basing them on cues, reflecting uncertainty and not probability, because the future may not be known but only imagined. The (future) payoff of choices (utility) brought by commitment into a course of action is also not that easy to determine in the “entrepreneurial games”. Inclusion of uncertainty in the game-theoretical models is probably still based on using multiple possible scenarios to extract “*strategic robustness rather than exact optimization*” (Ghemawat 1997, 229). Evolutionary game theory generally adds randomness to the game to make it more realistic in terms of potential players and their behaviours (Young 1998, 6). Adding or testing diverse behavioural assumptions beyond those of ideally competitive and simultaneous or sequentially independent games, may bring the games closer to the contextual reality and relativity (e.g. repeated and co-operative games, including the role of feedback, learning and historical time in strategy choice; cf. Varian 2006, 512; Vlaev & Chater 2006, 132, 145). In reality, the normative prescription probably works at a very primitive level in the entrepreneurial judgement, rather as “game theoretical reasoning” than as “game theoretical mathematics”, just as with the “real options reasoning” as against the “real options mathematics”. No matter how many fine-gained theories and methods we used to define the optimal choice with given payoffs or probabilities, these are always assumed, since the future may not be known and hence, *the entrepreneurial commitment is always a speculative action. “His success or failure depends on the correctness*

parts, components, or whatever, they all mesh together to produce behaviour" (Newell 1990, 17). Individual personality traits, motivational and cognitive characteristics, bits of information, decision processes and choices related to the temporary engagement with the entrepreneurial agency do play a role, but the views of their roles are very clear. A cynical observer would conclude the personal prescription for the entrepreneurial agency applies to persons that are either superheroes or not running on all cylinders.

The Resolution

After this rather long gestation of thoughts, some conclusions emerge. Regarding the functional setting, the entrepreneurial agency was deemed to reside at the other side of the coin of the economic agency; when the theoretical presumptions and conventional tools for the economic agency to work were not valid, there was room for the entrepreneurial agency to work. Regarding the behavioural and personal setting, a similar constellation appears. The entrepreneurial judgement seems to reside at the other side of the coin of "rational" choice; *when presumptions for the rational choice to work are not met, there is room for entrepreneurial judgement*. Rational choice takes place between some existing "givens", whereas entrepreneurial judgement may include emergence, surprise and interactive elaboration: *"we need entrepreneurs to help us discover through trial and error what we cannot compute"* (Koppl 2008, 925), or *"the process occurs precisely when the preconditions of more normal rational models are not met"* (Cohen et al. 1972, 16 about the "garbage can" model).

If the "rational" choice meant choosing an appropriate mean for a given end among the well-known and existing alternatives, entrepreneurial judgement does not necessarily consider either of these domains as "knowns" or "givens". Rationality as a candidate for an overarching and prescriptive interpretation of human action *"ignores the limits to rationality, the emotionality of human existence, and alternative logics of actions"* (March 2006, 202). Instead of "instrumental rationality" assuming certain ability, "achievement rationality" assumes that uncertain ability prevails (Khalil 1997, 155). When the *"full knowledge of all possible contingencies, exhaustive exploration of the decision tree, and a correct mapping between actions, events, and outcomes"* (North 2005, 7) is not necessary, appropriate or possible, there room for an entrepreneurial judgement.

of his anticipations of uncertain events" (von Mises 1966, 290). As the "real time" world may change also between the anticipation and the action, the correctness may only be observed ex post (Vaughn 1992, 259). And the outside world may react to her choice as soon as it becomes visible in a way possibly not even imagined. Again, it would be more interesting to study, up to what degree do the would-be and actual entrepreneurs utilize and follow the game-theoretical prescriptions in different occasions and context.

Rational choice obeying the presumptions of the conventional decision theory, and *entrepreneurial judgement* not obeying the same presumptions, form a duality: *the uncertainty of entrepreneurial judgement is difficult to understand without the certainty of rational choice, each side left alone would be insufficient to frame or explain the person-related dimension of the entrepreneurial engagement and action.* For the entrepreneurial agency – facing true uncertainty and ignorance for some aspects – the rational conception of the conventional personal agency is a frontier to be consulted with and comprehended as a benchmark in each situation. For the rational choice – working with full knowledge and unbiased cognitions – the ignorance of the entrepreneurial agency is a frontier to be reflected in defining the rationality in each situation (Figure 22). *The rational choice is oriented toward the past and the existing, the entrepreneurial judgement is oriented toward the future and the non-existing.* At one end of the duality there are rational choices based on the “known”, at the other end there are entrepreneurial judgements based on the “unknown”, which does not change into “known” no matter what sophisticated recipes (cf. Smith & von Winterfeldt 2004) are used for treating it *as if* it was known. The entrepreneurial agency is not doomed to obey the deterministic, past or present based and external logics and premises of a rational choice set out in the conventional view of the personal agency, but has more situational freedom to move along the continuums of changeability, subjectibility and temporality.

Attachment of the person (entrepreneur) with to entrepreneurial agency is transitory. *The object or vehicle linking the personal agency and the entrepreneurial agency is the entrepreneurial project, taking a place between the “known” and the “unknown”.* This form of analytical dualism seems as an appropriate metaconjecture for comprehending the personal prescription for the entrepreneurial agency. *The decisions related to the risky futures project are featured by entrepreneurial judgement rather than by a fully rational decision.* The bare essence of the entrepreneurial agency in terms of functions and judgements is most distinct in the early stages of the emergence of the agency (“nascent” or “novice” entrepreneurs; Ucbasaran et al. 2006, 4; Wagner 2006b, 15), and along time the entrepreneurial agency may move closer to the “deterministic” economic agency⁸⁰ and the “rational” personal agency.

⁸⁰ This gives some support to the defensive argument of Friedman against the criticism of the validity of premises in neo-classical economics. Rather than being a starting point of the reality, the premises of perfect rationality, maximization and optimization behaviours, equilibrating dynamics of the markets etc. are rather an “end product” or a norm (Friedman 1953, 22): *“Let the apparent immediate determinant of business behavior be anything at all – habitual reaction, random chance, or whatnot. Whenever this determinant happens to lead to behavior consistent with rational and informed maximization of returns, the business prosper and acquire resources with which to expand; whenever it does not, the business will tend to lose resources and can be kept in existence only by the addition of resources from outside ... acceptance of the hypothesis can be based largely on the judgment that it summarizes appropriately the conditions for survival”.* This sounds like manifestation of the coherence metatheory. Apart from this, it would be more interesting to study to what extent an agent will or has to comply with the premises in each occasion than considering them as universal “givens”. In mature markets (of perfect competition) they may force an actor to comply with them to survive, whereas in the absence or during the emergence of such markets or within a niche they may not play that role.

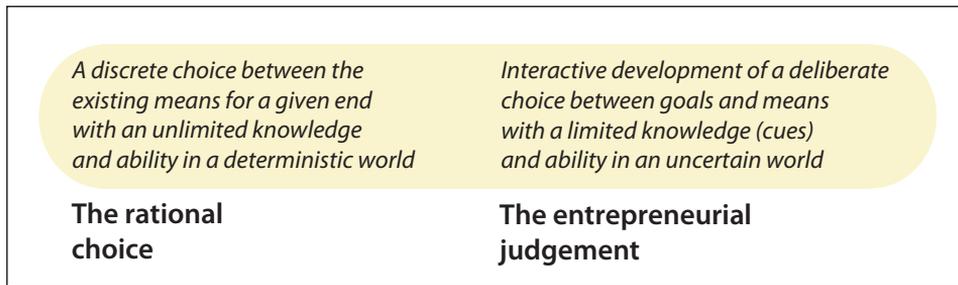


FIGURE 22 Duality of Rational Choice and Entrepreneurial Judgement

To what extent the willingness and the ability to cope with the future and uncertainty are related to some enduring and existing traits, cognitions and competences, is a contextual and empirical matter. Ontologically, the entrepreneurial agency is attached to the individuals *transitorily* (since it is manifested as projects) and epistemologically this attachment is *contingent* (since its novelty is situational). Heterogeneity of the individual judgement rather than homogeneity of the rational choice frames the personal uptake and conduct of the entrepreneurial agency. “*The essence of entrepreneurship is being different*” (Foss et al. 2007a, 1896) in time or place. The entrepreneurial agency is a transitory role played on the stage of novelty. The personal aspirations are moderated by the personal resources and by the qualities of the personal behavioural systems in the generation of some specific performance by the entrepreneurial agency. The personal prescription for the entrepreneurial role features a well-developed system of generation (e.g. imagination, creativity, cues, heterogeneity of judgement), but also the system of selection (e.g. risk-propensity, cognitive limitations, hierarchy of aspirations⁸¹) and system of coherence (e.g. identity, self-efficacy, accumulative abilities or slack for buffering losses from failed cues). Unlike rational choice, the entrepreneurial judgement necessarily observes the real.

Since the attachment is transitory, its carrier may also take other roles (e.g. capitalist, owner, manager or a salaried worker). Regarding the choices among the roles to be played and projects to be introduced, the institutional agency plays a role different from the economic or personal agencies. By chance, the very same risky “innovation project” may be a crime, shame, glory or a norm, depending on the institutional setting constructing borderlines for legitimate and illegitimate behaviours (Ehrlich 1973, 560; Fadahunsi & Rosa 2002, 401, 424). Those inclined to engage with the role of an entrepreneur often have experience in other roles (cf. Lazear 2005, 676) having these options in their back pockets if the various agencies did not afford their engagement with the entrepreneurial role. Discussion of the entrepreneurial agency would be incomplete without acknowledging the institutional sphere, in the domain of the social.

⁸¹ Within this hierarchy, the “essential” aspirations or needs necessary to be met to survive or maintain identity may be observed internally, whereas more voluntaristic aspirations are often subject to stronger external influence (cf. Vancouver 1996, 169-172).

3.3.3 The Social-Institutional Prescription for the Entrepreneurial Agency

The Setting and the Proposals

The individuals or collectives carrying the entrepreneurial agency should be willing and able to introduce risky innovation projects for experimentation. The willingness and the ability are both affected by numerous institutions, maintaining the “*rules of the game*” (North 2005, 62). Institutional diversity surrounds the stage where the entrepreneurial role may be played: political systems with their regulations, cultural systems with their conventions and belief systems, languages with their symbol systems, organizations with their hierarchies and boundaries, and many more.⁸² All these may both enable or constrain the uptake and conduct of the entrepreneurial role by maintaining contexts for it, as discussed in Chapter 2. These contexts are more durable than an individual entrepreneurial agency or project and they are preferred to exist because they “*enable ordered thought, expectation and action, by imposing form of consistency on human activities*” (Hodgson 2004, 425). Appropriate institutions are important for the efficient generation of wealth (e.g. Sobel 2008, 652) and functioning of social interaction in general. Through becoming accustomed with the qualities of the institutions, the potential and the actual carriers of the entrepreneurial agency may confront a frontier of *conformity* with laws, conventions, attitudes, habits, norms and expectations of the “*others*” as a structure. In the uptake and conduct of the entrepreneurial role, some of these structures are taken for granted, some become utilized intentionally, some resist the action, and some are subjected to change by the entrepreneurial action.

The emergence, development and implications of various institutional factors have become studied within *sociology*, telling stories about the interaction between the entrepreneurial agency and the “*social structures*”. They provide institutional prescriptions to the demand and supply of entrepreneurial roles. The institutional agency can raise a number of expectations and rules of how and why to play. The entrepreneurial role may be played along learning the rules of the game (Hodgson 2004, 183): institutions are learned. The rules spread and become learned through unintentional, tacit assimilation, or through intentional, imitative diffusion. In the game for meeting the diverse aspirations, the players are hungry for order and control. The rules may arise in an emergent way through interactive construction (Young 1998, 71-72; Hodgson 2004, 431), intentional consensus (North 2005, 42) or normative enforcement by power and authority (Meyer & Rowan 1977, 347), emphasizing the temporality of past for the actions to follow. Once for a while, the institution has become an effective deterministic structure beyond one’s deliberation (Meyer & Rowan 1977, 343-344).

⁸² Also established and organized markets in the sense described by conventional economic theory are an institution, which is discussed separately in this study. The implications are very similar to those of the other institutions discussed here.

This process of *institutionalization*⁸³ implies isomorphism, something becoming more conformed to some pattern through coercive, normative and/or mimetic processes (DiMaggio & Powell 1983, 150) emphasizing deterministic changeability as an end product. The end products of institutionalization are granted with legitimacy (Suchman 1995, 574). In a future-oriented behaviour, the observation and expectation of what others will do and what appears to be favoured, allowed or constrained, is of great importance to someone considering a risky project. Uncertainty fosters hunger for predictable behaviours (Heiner 1983, 567). Potential and actual carriers of the entrepreneurial agency need institutions for predictability, for the reduction of uncertainty (Beckert 1996, 819-820) – a role very much similar to developed markets as an institution. The institutions have regulative (e.g. rules and laws), normative (e.g. values and expectations) and cultural – cognitive (e.g. categories, typifications, schema) dimensions (Scott 2008, 79), through which they carry and provide coordination services. Just as the developed markets possessing economic agency, the other institutions are manifestations by the “structural inheritance” once born.

The entrepreneurial agency confronts various institutional agencies through the boundaries of homogeneity, coherence and stability. Things that have become institutionalized as individual habits (Berger & Luckmann 1966, 53), organizational routines (Feldman & Pentland 2003, 98) and capabilities (Winter 2000, 994), laws or certificates or common beliefs (Scott 2008, 51) – observable as normative or factual social orders (Parsons 1968, 91) – provide the inert, path-dependent structure against which to judge one’s project in terms of desirability and feasibility. Credited (institutionalized) enacted environment, possibly deviating from the “real” one, possesses agency to direct thought and action on the basis of the known past (Weick 1979, 177). *Signification structures* have an important role in discovering “opportunities”, *legitimation structures* in their evaluation and *domination structures* in the exploitation of the chosen action (Sarason et al. 2006, 296-299). Beyond “utilitarian” judgements of individual consequences of the action, also moral and ethical judgements of the consequences for the others

⁸³ Berger and Luckmann (1966, 53-54) illustrate the process of institutionalization: “All human activity is subject to habituation. Any action that is repeated frequently becomes cast into a pattern, which can then be reproduced with an economy of effort and which ... is apprehended by its performer as that pattern ... Habitualized actions, of course, retain their meaningful character for the individual although the meanings involved become embedded as routines in his general stock of knowledge, taken for granted by him and at hand for his projects into the future ... it frees energy for ... deliberation and innovation ... These processes of habituation precede any institutionalization ... Institutionalization occurs whenever there is a reciprocal typification of habitualized actions by types of actors ... The typifications of habitualized actions that constitute institutions are always shared ones. They are available to all the members of the particular social group in question ... Institutions always have a history, of which they are the products”. Gradually this reality becomes an “objective” reality [or: external, institutional agency] by objectivation (ibid., 60): “An institutional world, then, is experienced as an objective reality ... The institutions, as historical and objective facticities, confront the individual as undeniable facts. The institutions are there, external to him, persistent in their reality, whether he likes it or not”. This reality becomes internalized by consciousness. Furthermore, the habitualized and objectivated actions become sedimented in language (“knowledge”) and tradition (ibid., 67-70).

(justice perspective) may play a role (Solymossy & Masters 2002, 234). In many ways, institutions affect which direction the motivated and capable individuals channel their entrepreneurial effort (Baumol 1990, 918; Bowen & De Clercq 2008, 759; Minniti 2008, 787), and *how they specify and fulfil their aspirations energizing the entrepreneurial agency*.

Alternative meanings of the aspects of the uncertain future compete to become seen and selected for the basis of one's action (Gartner & Gatewood 1992, 8). Shared institutionalized worldviews or rules affect what kinds of aspirations the entrepreneur and the audience of her project expect to be achieved by it – or can be achieved.⁸⁴ The list of evidence is impressive. For example, a high status of an entrepreneur (Malach-Pines et al. 2005, 550) or a religion emphasizing personal responsibility rather than faith (Carroll & Mosakowski 1987, 586) may increase the probability of entrepreneurial action. Strong property rights may encourage novel entrepreneurial action (McMullen et al. 2008, 890) by enhancing “*transactional trust*” between separated parties (Fogel et al. 2006, 543, 570). The benefit of institutionalized trust seems to be an important explanation for the “*local bias in entrepreneurship*”, observable in the start-ups of new firms by locals (Michelacci & Silva 2007, 630-631). Close relationships may pose obligations and define expectations, but also create trust and reciprocity (Runyan et al. 2007, 397). Embeddedness may thus be a “*resource*” (Janney & Dess 2006, 395; Johannisson 1987, 56; MacMillan & Starr 1990, 83), when institutionalization reduces uncertainty. The effect of institutions may penetrate between the genders pushing them into different businesses (Brush 2006, 619). The incentive structure provided by the institutions may push even whole nations into different rails of development (North 1991, 97, 102). Individualism and power distance as embedded cultural dimensions affect the willingness and the ability to engage with entrepreneurial action (Mitchell et al. 2000, 987). Depending on the institutional settings, different emphasis may be given to sources of information to perceive strategic opportunities (Elenkov 1997, 299-300) and to conceptions of risks: “*The risk component is directly related to institutional and legal structures that deal with failure*” (McGrath 1999, 26). Institutionalization offers her “*lazy hand of agreeability*” in many instances, indeed, proposing to save energy through settling down and conforming to something which already exists.⁸⁵

⁸⁴ The borderline between the personal and institutional explanation is fuzzy. Hofstede and Hofstede (2005, 23, 31), for example, suggest five dimensions to distinguish various (national) cultures: small vs. large power distance, collectivism vs. individualism, femininity vs. masculinity, weak vs. strong uncertainty avoidance, and long-term vs. short-term orientation in time. Many of these come very close to the dimensions of the personal traits of entrepreneurs discussed earlier. This is hardly surprising, since cultures are by and large institutionalized habits. In this study, the institutional agency is actually social-institutional in character, while many similar “*traits*”, dispositions or features could be possessed also by the personal agencies conglomerating into social systems.

⁸⁵ It should be observed that institutionalization and institutional agency is needed for the behavioural systems to exist. They need some boundaries to develop and possess somewhat enduring inclinations and dispositions in order to provide their systems of generation, selection and coherence. Outside their “*effective*” boundaries there may be “*free*” aspirations and resources (e.g. Figure 33) not bound to any specific system, or not bound to any system relevant to a specific entrepreneurial agency, for example.

As various institutions change over time and differ between regions, different patterns and qualities of the entrepreneurial agencies become affected in different ways. As such, also non-economic institutions affect the means and the ends deployed by the entrepreneurial agency (Scott 1987, 508), emphasizing external subjectibility. The entrepreneurial agency is subjected to the surrounding institutions. *Conformity is the tool of the institutional agency*. This conformity works on the boundary of changeability of things. Non-conformity may be sanctioned or otherwise costly due to inefficiency or extra effort needed to find “alternative pattern” (Burns 1986, 26; Jepperson 1991, 145; Scott 2008, 131).⁸⁶ Institutions interact with the would-be and existing entrepreneurs on the battlefield of uncertainty by coordinating the risk perceptions, attitudes, incentives and sanctions of the non-conforming, non-institutionalized novel action. Over time, the institutions contribute towards path-dependency of the action.

Institutions are indeed often considered to constrain and condition the action. But the entrepreneurial agency may also subject institutions. There is a dual demand for this role: *to create and renew the institutions*, and *to maintain the codes for the entrepreneurial behaviour as an institution*, as learned “scripts” of the role. Concerning the first demand, the entrepreneurial agency destroys stability of the institutionalized patterns by carrying out its experimental role and the resulting uncertainty makes calls for new means to cope with it – new legislation, new organizational forms and routines, new kinds of careers, new shared expectations of patterns of behaviours: norms, values, myths and beliefs of desirability (e.g. Beckert 1999, 788; Flores & Gray 2000, 32; Jelinek & Litterer 1995, 164-165; Selznik 1957, 151; Yu 2001a, 231). The entrepreneurial agency facilitates specific kinds of *transformative institutionalization processes* (cf. Colomy 1998, 267) within the various domains touched by its experimental and explorative actions.⁸⁷ The entrepreneurial agency also maintains other’s expectations of what could be expected from someone playing this role. As soon as this interaction leads to a shared and settled state of habitual practices or normative expectations and rules, an institution is born.

The entrepreneurial agency may respond also to a second demand for the role: reproduction or replication or retention. Retention of the particular institutionalized role – *“type-X action as being performable by any actor to whom the*

⁸⁶ Institutions constrain individual action through several channels. The regulative dimension guides action through governance and power, the normative dimension through regimes and authority systems, and the cultural – cognitive dimension through structural isomorphism and identities (Scott 2008, 79).

⁸⁷ This role has been labelled as *“institutional entrepreneurship”* (Eisenstadt 1980, 840), expressed by adopting a leadership role in the episodes of institution building, in the institutionalization processes (Colomy 1998, 270). The role is fundamentally creative and innovative, and organized as a project (ibid., 271). The project is directed toward the future (Sartre 1963, 91): *“The most rudimentary behavior must be determined both in relation to the real and present factors which condition it and in relation to a certain object, still to come, which it is trying to bring into being. This is what we call the project”*. Institutional entrepreneurs may be considered as agents having the capacity to use the causal powers of the institutional logics to change them despite being affected by the institutions themselves (Leca & Naccache 2006, 644).

relevance structure in question may be plausibly imputed" (Berger & Luckmann 1966, 72) – is also possible. In this case, the particular role to be maintained contains the ability to take up the entrepreneurial agency and introduce entrepreneurial projects over time and place. Also this retention takes place through *reproduction* (cf. Colomy 1998, 267) by imitation, diffusion and learning as exploitative actions.⁸⁸ Consequently, legitimacy of the entrepreneurial agency in a specific environment may be strengthened and consolidated by the underlying cognitive, moral and regulatory dimensions (Aldrich & Martinez 2001, 49). Institutionalization of the entrepreneurial role may provide retention for the behavioural codes, and keep up a solid institutional stage for this specific kind of a performance. Institutionalized networks provide important channels for the transmission of the role models (Shane 2003, 158).

The Slippery Entrepreneurial Agency

The precise qualities and the emergence of institutions is one thing, their implications are another, faced explicitly or implicitly by the potential or actual carriers of the entrepreneurial agency. Just as emergence of a specific market provides a stable system for the exchanges conforming to that market, the emergence of a specific institution provides a stable system for the actions conforming to that institution, and an evaluation frontier for other ones: for the non-existing or for the non-conforming. The institutionalized sphere of reality binds various worlds which *may* be taken for granted within that boundary: within a state, region, culture, market regime, dominant design of technology, organization, family or other group. Within these boundaries, the institutional explanations may aim at universality (cf. Thornton 1999, 22), and inconsistency between this sphere and the action under focus may give rise to conflicting findings (cf. Hayton et al. 2002, 47).

But just as not all exchanges take place on fully developed markets, not all actions and behaviours are fully institutionalized (deterministic in the sense of being habitualized, routinized, credited or legitimized) but deliberate, intentional and creative. *The economic agency afforded by the "structural inheritance" of established markets for exchange, the personal agency leaning on the rational choice afforded by the "structural inheritance" of the existing knowledge, and the institutional agency afforded by the "structural inheritance" of the established rules of the game, all leave out the creative, judgemental and non-conforming actions in the world outside their boundaries of well-defined worlds.* Just as the markets need to become developed and reproduced by transactions for quite some time to possess functional economic agency, information needs to develop and accumulate to possess knowleable

⁸⁸ Even though innovation has a shining role in the entrepreneurship discussion, imitation is a far more common mode of an entrepreneurial project. For example, Reynolds et al. (2002, 19, 37) found that 93 % of the entrepreneurial start-ups in their international data regarded their business to be a replication of an existing business activity. Innovation in *place* is far more common than innovation in *time*, but both cases of novelty very much depend on how they are defined or asked, and are always based on definitional conventions.

rational personal agency, also the institutions need to become developed and reproduced by actions to possess institutional agency. All these somewhat enduring agencies evolve and develop by accumulation and boundary spanning, when an incremental or revolutionary transformation consolidates “structural inheritance” for the next exchanges, thoughts and actions. For all these agencies, the entrepreneurial agency is a frontier phenomenon introducing novel thoughts and actions for them. For the other agencies, this means confrontation with *novelty* (within their current boundaries or through emergence of rival entities), for the entrepreneurial agency this means confrontation with *uncertainty causing a risk*. The more institutionalized the issue, the more energy it generally requires to change it.⁸⁹

The entrepreneurial agency operates at the boundary of institutionalization. “*Entrepreneurship ... is a process of mindful deviation*”; an effort to find a way to deviate enough in order to galvanize the momentum, but not too much to trigger fatal counter-reactions (Karud & Karnøe 2003, 281). Within each institutionalized system, its members are provided with common *institutional repertoires* or “*tool-kits*” for strategies of action to pursue their aspirations (Swindler 1987, 281). Such tool-kits could be comprehended also as “*social technologies*” (Burns 1986, 28). Institutionalized systems are depositories of *common* knowledge: common typified memories, shared prescriptions for various roles and actions. Institutions reside within the domain of the social. Innovative, risky entrepreneurial projects are representations of knowledge and action, which have not institutionalized in their environment. “*That suggests why newcomers, entrepreneurs, marginal men, outsiders, hatchet men, and other anomalies ... are crucial sources of innovation*” (Weick 1979, 177). The economic and the non-economic institutionalized agencies enable and constrain this intentional effort. They also face similar frontier problems. How can habitualized, taken-for-granted and fully conforming actions be novel in their context, capable of creating new candidates for actions to become institutionalized?

The Resolution

As with the economic agency, the social-institutional agency resides at the other side of the same coin as the entrepreneurial agency. *What an institutionalized action cannot bring about, an entrepreneurial action can*. The actions obeying and reproducing the presumptions of institutionalized behaviour, and the entrepreneurial actions not obeying and potentially reforming them, form a *duality* that cannot exist and be understood separate from each other. The novel entrepreneurial action is subject to institutionalization by reproduction (e.g. imitation) giving rise to new demands

⁸⁹ The institutionalized and standardized or ideological “core” is often considered as a relatively inert “dominant design”, facilitating changes and innovations in the more peripheral components at the lower level along the granularity dimension (e.g. Collins & Porras 1994, 85; Murmann & Frenken 2006, 943). Change in the core is kind of a revolution.

for transformative actions. The entrepreneurial agency is afforded and constrained by the existence of the institutionalized settings (Garud et al. 2007, 961-962), but must “disregard the limitations of commonly accepted definitions of material inputs, practises, and definitions and standards” (Baker & Nelson 2005, 334). To study the entrepreneurial agency, the “sociology of deviance” is as a valid tool as it is for other risk behaviours (Peretti-Watel & Moatti 2006, 675). The entrepreneurial agency must observe the institutional agency, but find ways out of the habits, routines, rules, myths, rituals and world-views supplied by it. For the institutional agency – working with established institutionalized actions reproducing or conforming to the “existing” – the entrepreneurial agency which aims to introduce situational novelty is a frontier to be coped with. For the entrepreneurial agency – working with novelty – the “existing” of the institutional agency is a frontier to be coped with (Figure 23). As such, the economic agency and the (non-economic) social-institutional agencies are very similar. “Yesterday’s institutional framework provides the opportunity set for today’s organizations and individual entrepreneurs” (North 1991, 109). The entrepreneurial agency is not doomed to obey the deterministic, past based and externally set actions like her cousin institutional agency, but has more situational freedom to move along the continuums of changeability, subjectibility and temporality

The social-institutional agencies (or structures) confronting the entrepreneurial agency have an extremely well-developed system of coherence (e.g. habits, routines, role expectations, identity, legitimacy, dominant designs), as well as a system of generation (e.g. cultural incentives) and a system of selection (e.g. sanctions for non-conformity). With regards to changeability, subjectibility and temporality, they tend to emphasize deterministic, external and past-oriented inclinations towards thought and action. *The object or vehicle linking these agencies is the entrepreneurial project. This analytical dualism seems to be an appropriate metaconjecture for comprehending the social-institutional prescription for the entrepreneurial agency also.*

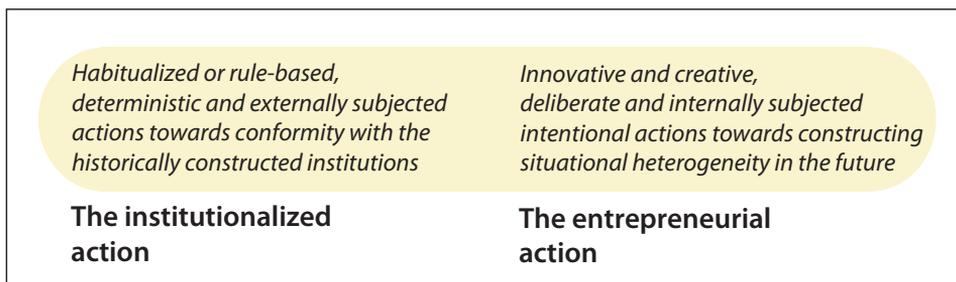


FIGURE 23 Duality of the Institutionalized and Entrepreneurial Actions

3.3.4 The Entrepreneurial Agency at the Boundary Bridges

The entrepreneurial agency with an effort to introduce a risky and situationally novel entrepreneurial project for experimentation to expose new combinations or new sources of isolation in resource use *has to cope with economic, personal and institutional realities simultaneously*, leaving any single analytical frame or explanation partial in capturing this multidimensionality. The entrepreneurial agency targets its ability towards emergence, toward something that is nonexistent: markets or functions that do not yet exist “there” and “then”, choices or judgements that are not yet done “there” and “then”, thoughts and actions that are not yet exercised out “there” and “then”. The existing markets, the existing knowledge and the institutionalized thoughts and actions provide tools for managing things that already exist, but for those to be in existence they only may provide incentives, expectations, cues or hunches. *The three domains discussed above surround the entrepreneurial agency with the “existing”*. Boundaries set by the existing functions, choices, thoughts and actions form an important counterfactual space for the entrepreneurial functions, choices, thoughts and actions. *What is not covered by the institutionalized, predictable rules and procedures of the established markets, choices, thoughts or actions, there is the world of the entrepreneurial agency to work, to come up with its situationally novel thoughts and actions and the entrepreneurial project as the practical tool for stepping up onto the stage of entrepreneurial performance.*

Along this performance, the carrier of the entrepreneurial agency may change the economic, personal and social-institutional “environment” or “structures”: innovations may be brought to the market, new ways to cope with uncertainty may be learned and new thoughts and actions may become institutionalized *in that time and place*. The effort is interactional, intentional and may fail. The entrepreneurial agency is enabled and constrained by economic, personal and institutional “structural inheritances”: historical aspirations, resources and behavioural systems residing within their boundaries. All these agencies have an internal structure including the systems of generation, selection and coherence, but with different emphasis. The economic agency has a well-developed and fine-grained system of selection (market competition), the personal agency has a powerful system of generation (creativity) and the various institutionalized agencies maintain robust systems of coherence (conformity). *These sub-systems represent and maintain situationally (time and place) different changeabilities, subjectibilities and temporalities for the particular contexts they structure and represent.* For the entrepreneurial agency this means that the possibility of introducing and managing an entrepreneurial project is contingent with these constellations.

Much of the confusion in the literature seems to arise from the unclear attachment of the entrepreneurial agency to its carrier and to these contingencies. The entrepreneurial agency has often become attached very strongly to a “continuous” activity or process or function, or even to a “permanent” structure: in the entrepreneurial personality, in the employment status of the entrepreneur, in the entrepreneurial firm. This has directed attention toward finding universal explanations for such enduring positions. But when the genuinely entrepreneurial action is situationally novel and transitorily attached to its carrier, such situationally and transitorily universal *and* detailed explanations may not exist. Each engagement is in some

ways unique. The entrepreneurial action is contingent with the economic, personal and institutional agencies in time and/or place. *As an activity it is “innovative” in the sense of being new to the market place, to the person and to the institutions it engages with.* Instead of an unclear, deterministic or universal attachment, one could study changeability, subjectibility and temporality of this attachment as enabled and constrained by the markets, personal inclinations and institutions.

So far, we have tracked the small firm specificity by shaking the barrels of diverse scientific perspectives, theories, views and other elaborations. We started with the role of the environment, with which a “fit” is to be found to survive. We reasoned that the more enduring specificity of the small firm “species” could lie in the process of finding and maintaining this “fit”, which is driven and energized by the entrepreneurial agency. The entrepreneurial agency uses the small firm as a platform for innovation projects when probing into the future, energized by aspirations not met by other projects and carrying a risk of failure of the agency and the project. We were able to surround the entrepreneurial agency with the conventional explanations regarding the economic, personal and social-institutional domains, but as they represent the “existing”, they can only provide a counterfactual or a judgement frontier for the entrepreneurial agency introducing situational novelty, something which is considered to be “non-existing” in a particular time and/or place. The uptake and conduct of the entrepreneurial agency is transitory, and it may transform the “structural inheritance” residing within the three domains, changing the capacity of these economic, personal and institutional agencies. The practical tool for all these demands is the entrepreneurial project, which is discussed and specified next.

3.4 Entrepreneurial Project as a Product of the Entrepreneurial Agency

The *entrepreneurial project* lies at the heart of the dynamics in the small firm world. It is proposed as a resolution to the ambiguous linking problems. Following analytical dualism, it distinguishes this entity (project) from the various frontiers enabling and constraining its interactive emergence and conduct. The project has specifiable qualities: it has a start and an end; it has identifiable stages or changes during its lifetime; it may be found incidentally (“by connecting the dots”), or after a directed search for aspirations not met by other projects; its result is uncertain in advance and its implementation facilitates learning; it requires resources to become introduced and implemented, and it may be of a specific size; it competes for the aspirations and expectations with other potential and existing projects of the same⁹⁰ or another player within its environment (time and place); it is enabled and constrained by the economic, personal and institutional agencies

⁹⁰ This situation is called “*habitual entrepreneurship*”. That, a single person may own several firms simultaneously as a *portfolio entrepreneur* or she may own several firms sequentially as a *serial entrepreneur* (Ucbasaran et al. 2006, 5). In our case, projects are preferred over firms.

specific and relevant to it; it may succeed or fail or become abandoned; it may generate situational novelty. The project may be located along the continuums of changeability, subjectibility and temporality up from its emergence to its closure.⁹¹

As such, *a project appears to be an appropriate product of the entrepreneurial agency: it is a vehicle of adaptation between the interacting constituencies and unit of performance as a tool for meeting aspirations and extracting resources, observable from several perspectives.* It also alleviates the old structure-agency dilemma: the emergence and conduct of the project is subjected by the structures (“structural inheritance”) and the project subjects structures (by the potential for transformation) as a duality. Based on the multiparadigm review of the relevant literature concerning this truly interdisciplinary and multidimensional phenomenon, it seems possible to specify and contextualize our analytical structure in the spheres of economics, psychology, sociology or other relevant sciences when necessary, and to avoid the paradigm prisons whenever deemed beneficial. *The entrepreneurial project links the related domains and bridges the relevant perspectives* as illustrated in Figure 24. Given the difficulty to predict the emergence and success of these kinds of projects, the analytical structure may help to *understand* them (Lakatos 1973a, 107).

Now, we have been able to reorganize the dubious conflation or complete separation of the agency and the structure – as found in many economic, personal and institutional explanations – into the realms of the agency, the project, and the environment. The project may be investigated from several perspectives: attachment of the project to the entrepreneurial agency and to the environment, goals, endurance, development over time and place, size, outcome from various points of observation etc. The risky innovation project is the concrete action, outcome and tool for interaction by the entrepreneurial agency. Its numerous antecedents and performance-related outcomes may be explored regarding the economic, personal and social-institutional domains. It may take very different forms, but it may be specified in a context.

The economic, personal and social-institutional prescriptions for the entrepreneurial project were comprehended as dualities. They could provide expectations or inclinations for someone to take up the entrepreneurial agency to introduce a project, but not more than “grey-box” its precise emergence, conduct and qualities. They are attached to the project, but do not contain or deterministically explain it yet, except for the rare extreme positions at the edge of the continua. *They contain just three potential domains of imperatives as long as they, or some of them, are observed and interacted to activate thought and action, that observation and interaction being triggered by more (e.g. dominance in time and place, planning) or less obvious (e.g. peripheral role, incidental contact) reasons.* As soon as the project is set up, the economic, personal and institutional prescriptions start to have a more solid grip on the slippery subject: there is a “thing” on which the market forces and the institutional conformities may start affecting and for which alternatives may be put forward for more “rational” comparison and decision.

⁹¹ Incidentally, also Casson and Wadeson (2007) have come up with the idea of project, theorizing about the entrepreneurial opportunity with this concept in the economic framework, “*as an opportunity is essentially a project that would prove beneficial if it were exploited*” (ibid., 285).

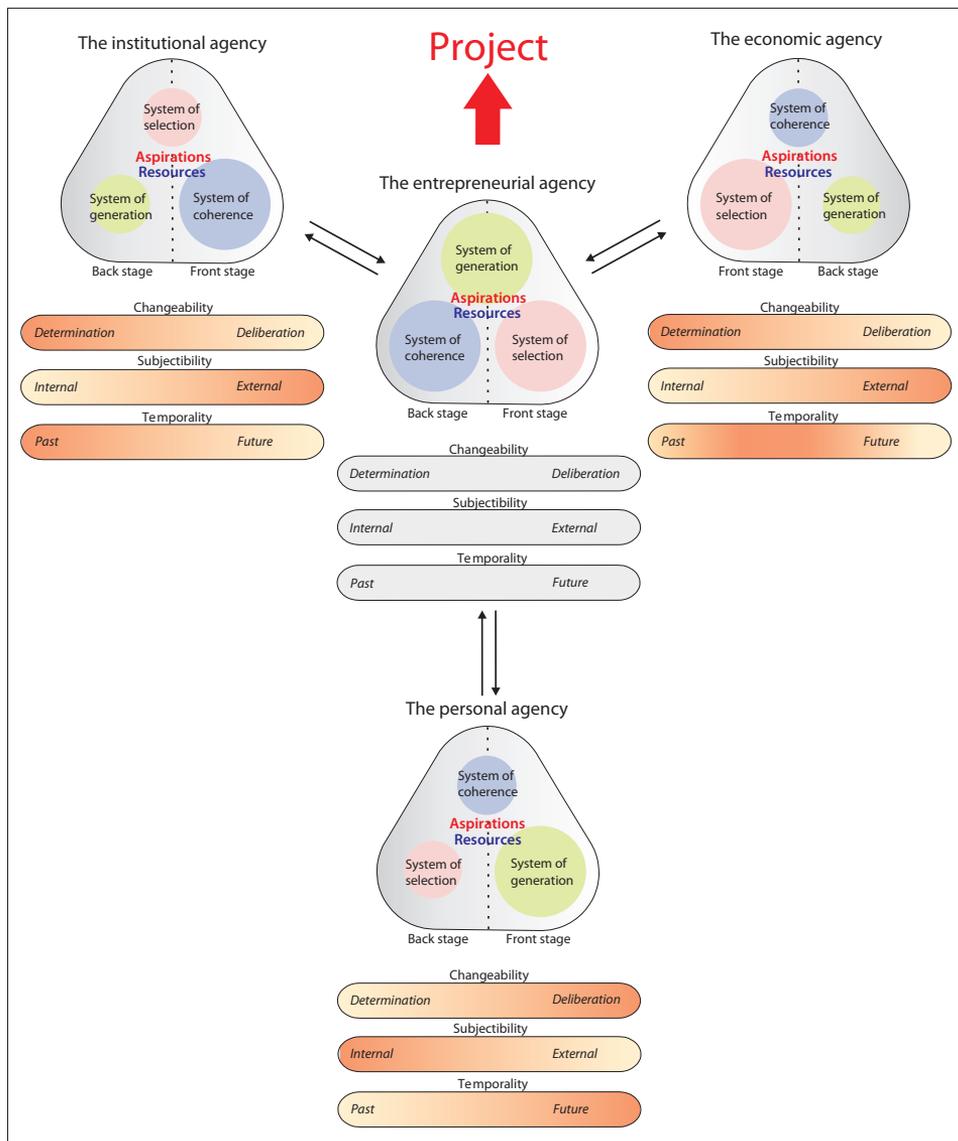


FIGURE 24 Links between the Entrepreneurial Agency and Other Agencies with More Enduring Properties (“Structural Inheritance”), and the Entrepreneurial Project as a Product of the Entrepreneurial Agency

An entrepreneurial project emerges when aspirations change into intentions and actions, and all economic, personal and social-institutional explanations along this way have only a probabilistic influence on the potentia for the emergence of the project by attracting the thought, attention and action into specific pathways through dominance or incidental focus-gain. The closer the actual start-up becomes, the more relevant their explanations become, and for a running project they may place very deterministic demands and offers. Their role may vary along the emergence process, which may essentially become placed on the continuums of changeability, subjectibility and temporality.

Featuring the Entrepreneurial Project

But what else could be said about a *typical* entrepreneurial project, acknowledging the huge variety of projects? The entrepreneurial agency may introduce projects for experimentation to yield new areas of isolation in the resource use or new ways of competitive resource use. These may be called innovations *in their context* (time and/or space). Figuring out these projects and placing their antecedents, interactions/contingencies and outcomes on the three continua, may bridge not just various sciences to study them, but also settle down age-old confrontations, like individual choice vs. environmental selection or episodic vs. incremental change.

First, setting up a risky innovation project by individual or by a group of them (Harper 2008, 624)⁹² is *strategic* in nature (Child 1972, 12; Child 1997, 48): it has a rather long duration as an outset; it asks for relatively significant resources and commitments in comparison to those possessed by its carrier/owner and it may have remarkable performance implications in terms of survival and success or failure of the entrepreneurial agency; it asks for evaluation and anticipation of its consequences (including the reactions of others); and it asks for a strategic management perspective (Kuratko & Audretsch 2009, 5), but in a broader view than just selecting the environment or positioning oneself in the market place. The ambiguous strategic choice related to the project is partly non-irreversible (Mosakowski 1997, 437); it causes personal, economic and social sunk costs. The adaptive process of finding and maintaining the “fits” and ways of being different in a specific context belongs to the strategic posture. As a whole, it is indeed an “*infrequent, discontinuous, and intentional*” episodic change (Weick & Quinn 1999, 365), but changes along the lifetime of the project may be featured also by the “*ongoing, evolving, and cumulative*” continuous change (ibid., 375). Management of an entrepreneurial project asks for a synthetic view (Mintzberg et al. 1998, 20). *An entrepreneurial project is a strategic project, and it has a strategic imperative.*

Secondly, since being novel in some context means confrontation with genuine uncertainty, experimental learning is an important mode of managing the project once it has been introduced. One has to commit some specific course of action, the outcome of which is unknown, because all the effectual interactions which may take place in the future may not be forecasted; the future may not be known. Management of this kind of a project takes place in a world that is neither deterministic nor random but “*in-between*’ world of plastic control” (O’Driscoll & Rizzo 1996, 38). As the future may not be known, only “grey-boxed” directional behaviour is an appropriate recipe in such an action, as visualized by the corridor-

⁹² There are conflicting thoughts on the subject. Casson (2003, 20), for example, considers that it is only *one* individual who may be the entrepreneur, respecting the atomistic tradition of economics. Also Nonaka (1991, 97) considers that “*new knowledge always begins with the individual*”. We discuss the process rather than the phenomenon as a whole. Certainly, there is always an individual who first has an idea, but on the other hand, it is possible for the entrepreneurial agency to be comprised of a team, even in a rather early stage of development toward the project, which is common within family firms, for example.

principle⁹³ (Ronstadt 1988, 34), commitment to a course of action (Staw 1981, 582)⁹⁴, evolutionary trajectory (Helfat 1994, 1720) and valuation of directional choices based on “memberships” as fuzzy sets (Hornaday 1992, 18; Liginlal & Ow 2006, 3052; Ragin 2000, 181-182), for example. Things will find their place and new landscapes and aspects open up once the steps are taken along the process of commitment and discovery. Some new doors open, some are opened up, and some are left behind. Random factors (cf. Woo et al. 1994, 517) behind the reach of a typologist’s mindset may play a prominent role in explaining how things are actually triggered (e.g. Cope & Watts 2000, 115-116; Harvey & Evans 1995, 341; Young & Sexton 2003, 168) and progress as a sequence (Woo et al. 1994, 521). The willingness and the ability, or confidence of the ability, to control the directional path created by engagement with the entrepreneurial agency and introduction of the project may even play a more important role than the expected outcomes (e.g. Townsend et al. 2010, 192). “*Managing the unexpected through mindfulness*” violates the comfort of “*the good stuff like planning, making strategy, and forecasting*” in achieving success with “*complex projects*” (Weick & Sutcliffe 2007, 160). Directional “grey-boxing” of the “evolutionary path” (Popper 1992, 210)⁹⁵ framed by the course of action observes historical time (Fichman & Levinthal 1991, 445). The concept of project implies “*that the arrow of time is pointed forward, that there is no turning back*” (Nightingale 1994, 243). Thus, *an entrepreneurial project is a directional future project, and it has a directional future imperative.*

Thirdly, doing things in a new way or not in that place before may emerge as risky behaviour. Several economic, personal and social-institutional selective forces may intervene. More attractive ideas or candidates for projects may emerge; competition may erode the profitability of the running project over time;

⁹³ “*The act of starting a new venture moves an entrepreneur down a venture corridor that allows him or her to see intersecting corridors leading to new venture opportunities that they could not see before getting into business ... this knowledge and the opportunities they reveal most often come only after one gets into business ... they may be better off looking for a venture that simply gets them into business and provides a conduit toward more ambitious and/or rewarding ventures, to be started in the future*” (Ronstadt 1988, 34, 39).

⁹⁴ This may also be an escalating commitment to a *failing course of action*, which may be driven by specific expectations about goal attainment, based on probability or self-efficacy belief (Rubin & Brockner 1975, 1061; Whyte et al. 1997, 428); reference-point bound framing of the choices (rather than pure gain or losses; Whyte 1986, 319); avoidance of the tension arising by a (nearly) unfinished project (Zeigarnik tendency; Boehne & Paese 2000, 192; Garland & Conlon 1998, 2042; Henderson et al. 2007, 98); or by self-justification of decision once done, disregarding the negative feedback (Brockner 1992, 41; Staw 1976, 41), for example. Unfortunately, tests of the escalation and entrapment views are mostly based on students’ imaginations rather than on real-life cases (as observed also by Wilson & Chang 1997, 293-301).

⁹⁵ Popper explains (1992, 210): “*Every behavioural innovation by the individual organism changes the relation between the organism and its environment: it amounts to the adoption of or even to a creation by the organism of a new ecological niche. But a new ecological niche means a new set of selection pressures, selecting for the chosen niche. Thus the organism, by its actions and preferences, partly selects the selection pressures which will act upon it and its descendants. Thus it may actively influence the course which evolution will adopt. The adoption of a new way of acting, or of a new expectation (or ‘theory’), is likely breaking a new evolutionary path.*”

personal aspirations may change; the owner of the project may become sick; its financiers may find it too risky; it may become used as a public example of non-conforming action by some social group; etc. The entrepreneur introducing the project may *try* to forecast the future to reduce uncertainty and risk (“causation model”, “forecasting model” or “planning model”), or she may *try* to define an affordable risk in advance and *try* to control and keep the project within that limit (“effectuation model”; Sarasvathy 2001, 251; Woo et al. 1994, 517-518). The efforts and the idiosyncratic strategic commitments (Cool et al. 2002, 63) accumulated upon the introduction of the project are sunk costs⁹⁶ – prior “*investment in money, effort, or time*” (Arkes & Blumer 1985, 124). For the entrepreneur, these comprise of *economic, psychological and social risk*,⁹⁷ with idiosyncratic consequences for the future. Additional risk may arise along the implementation of the project, requiring strategic management of uncertainty (cf. Jauch & Kraft 1986, 782). Logically, risks

⁹⁶ The existence of *sunk entry costs* has important implications for the project. Some investments may have no recoverable market value upon exit, to be distinguished from fixed costs lacking this specification. “*Sunk costs ... cannot be eliminated, even by total cessation of production [like the fixed costs] ... once committed, sunk costs are no longer a portion of the opportunity cost of production*” (Baumol & Willig 1981, 406). Facing uncertainty upon start-up or “entry”, small firms behave “rationally” by investing less than their full long-run capacity level in the beginning (“period 1”), whereas for established firms the expectation of an exit due to “liability of newness” is smaller and it is rational for them to invest closer in their full or optimal capacity from “period 1” on; this may provide one feasible explanation for the tendency of the small firms to show higher growth rates at a later stage as compared to the large, established firms (Cabral 1995, 165). [Specifically, the “liability of newness” (Stinchcombe 1965, 148-149; Singh et al. 1986, 171) means a lack of well-established roles, procedures, trust and relationships.] According to this viewpoint, the degree of sunkness of the initial economic (e.g. money), personal (e.g. effort) and social-institutional (e.g. trust and reputation) investment for an entrepreneurial project may have an impact on the specific temporality of the commitment. This may be also considered as an effort to control emergent “strategic liabilities”, originating from the endowments, bad luck, strategic assets, rival actions or unfavourable changes in the context (Arend 2004, 1003, 1007) – i.e. as an effort to control sunk costs originating from the commitment. Acknowledging the “liability of adolescence” in the commitment, this initial stock of assets (i.e., sunk costs) may allow a “honeymoon period” buffering the commitment from the first unfavourable outcomes of the interactions, which always take time to be observed and evaluated (Fichman & Levinthal 1991, 445-446, 462; Strothmann 2007, 97). On the other hand, significant sunk costs upon start-up or market entry may also form an entry barrier, because of their absolute size deducible from a dominant design of technology (e.g. Suárez & Utterback 1995, 416, 428) and/or because of the difficulty of leasing, lack of second-hand market or a slow rate of depreciation (Theory of Contestable Markets describes the other extreme with free entry and costless exit, forming a threat for the incumbent firms as a benchmark; Baumol & Willig 1981, 420; Kessides 1990, 614, 621-622). *Changeability and temporality manifest themselves in many different ways in risks!*

⁹⁷ This is a view different from Schumpeter’s and Kirzner’s. In their view, it is not the entrepreneur who carries the risk, but the capitalist. Evidently, they discuss only economic risk. Their view, however, would implicitly mean that the entrepreneur only makes costless observations and produces costless ideas of what can be done. She would be just a whisperer for the real risk takers. It is dubious whether that kind of a person without any personal commitment and exposure to risk should be called an entrepreneur. In this case, risk is used in a broad sense, resulting from all the relevant and potential sources. An entrepreneur is faced with multidimensional *uncertainty*, and she is subjected to multidimensional *risk* by taking thought *and* action which activates the risk imperative.

may have an inverse relationship with the novelty they introduce (e.g. Shepherd et al. 2000, 397) to the various agencies. Entrepreneurial project is not a riskless “observation”, but a risky commitment to action, which may lead to the failure of the entrepreneurial agency, forming a configuration of economic, personal and/or social risk.⁹⁸ *An entrepreneurial project is a risky project, and it has a risk imperative.*

Fourthly, doing things in a new way or not in that place before implies that learning need to take place along the way. By introducing a project, the entrepreneur unavoidably learns about the “state of the world”, about other agents’ behaviours, about problem solving, and about her own preferences and aspirations (Dosi et al. 2005, 280; Holcomb et al. 2009, 176; Vaughn 1992, 265). By judging the economic, personal and social-institutional prescriptions for the project, the entrepreneur may roughly delimit her “learning space”, but only introduction and management of the project opens up the avenue for true learning related to the situational novelty of the project. Learning means essentially coping with something not known before,⁹⁹ revising the experience and the expectations,

⁹⁸ Here, one should be specific despite the fact that in the social world and in the social sciences more or less everything is based on *conventions*. The entrepreneurial project introduces situational novelty with a potential for new sources of isolation in the resource use or new combinations of competitive resource use; they are experimentations put in the evolutionary test of survival and success. A success in meeting the aspirations not met by other projects means, of course, fulfilment of them, but also a possibility for accumulation of resources and increased knowledge of the related, successful behaviours that led to the “fit”. To qualify for an entrepreneurial project, the project should have such a (economic, personal, social-institutional) risk, which might result in the failure of the entrepreneurial agency introducing and owning the project. Only those who are “sitting on the fire with their own pants” are entrepreneurs, to be distinguished from “innovative” managers, “initiator” employees or “active” citizens. A manager may risk her managerial agency, to be distinguished from an entrepreneurial agency. For example, setting up a new firm may facilitate an entrepreneurial project *if the subsequent strategic commitment to the actions meets the novelty and risk criteria*. Also a criminal project may be an entrepreneurial project, if it meets the novelty criteria, because the risk is evident and the moral aspects are not included here (e.g. Frith & McElwee 2007, 270). On the other hand, the case of “corporate entrepreneurship” is problematic. The related projects may introduce situational novelty, but unless those who introduce them have no explicit ownership of the project (which management or employees hardly have if they were not owner-managers of the firm) and unless they confront the risk of failure along taking up the entrepreneurial agency (which seldom is the case, but rather active management and employees are resourced by the firm and rewarded for their activities and discoveries!), we discuss issues of good management and active employees – and definitely not entrepreneurship. Being active, having novel ideas or running a dynamic firm (cf. Phan et al. 2009, 198-199) does not make one an entrepreneur. Essentially, “corporate entrepreneurship” is one of the several examples of intellectual waste produced in the pressure of publishing, rootless concept development, emancipatory attempts of various disciplines and some unknown desire to get an entrepreneurial label for ordinary jobs. As the world grows more complex, new concepts are needed to have a feasible theoretical “operating system” for it, but just developing more and more concepts without ever having real *modus tollens* on their feasibility or attempts to organize them into some cohesive wholes, may not result in real progress of science.

⁹⁹ The concepts of learning, control and strategy are interrelated. For example, Mintzberg (2007, 5) illustrates deliberate strategy by control and emergent strategy by learning. These are, however, extremes of a continuum, since “almost every sensible real-life strategy process combines emergent learning with deliberate control” (ibid., 5).

but leaving the “next” future still unknown (cf. Buchanan & Vanberg 1991, 169-170). The “structural inheritance” will be revised in some way. As an algorithm, this may take the form of a patterned life cycle (also a biological analogue), teleological search cycle, dialectic conflict resolution or evolutionary distillery of the outcome (Van de Ven & Poole 1995, 514).¹⁰⁰ A failed project may serve next trial (Alchian 1950, 219; Sitkin 1992, 243),¹⁰¹ if the carrier of the entrepreneurial agency will recover and do it again. Small initial bits and pieces may be configured and connected to impressive configurations during the learning process (Chia 2008, 39). Observing historical time makes it possible to include the feedback effects. *An entrepreneurial project is a learning project, and it has a learning imperative.*

Bridging Entrepreneurial Paradigms

Placing an entrepreneurial project along the three continuums of changeability, subjectibility and temporality may reduce the need for mounting more and more isolated and rootless concepts while analyzing the phenomenon. It may also resolve the tension between the positivist view based on the utilization of the deterministic opportunities “out there” and the constructivist view based on the development of the opportunities and “effectuation” of the process. These two separate storylines could be bridged into a duality with a “speculative thought” (Weick 1989, 516). Opportunity “out there” could be a starting point for an entrepreneurial project, but it could also be started with the resources “in here”. The paradigmatic views form a duality rather than a dualist setting. If the opportunity for a project is evident (“there is no bar in the large village”), the flow of things may start running *from* that observation *toward* resource organizing

¹⁰⁰ Van de Ven and Poole (1995, 520) have presented a typologist’s view of motors affording and resisting change of the entities: evolutionary, dialectic, life cycle and teleological motors. The pure process theories, however, lack the agency which energizes some of the algorithmic archetypes of change processes. Process theories are “empty” in the sense that they only feature what various patterns or trajectories a change (e.g. of a firm or a project) may follow. In that sense, they are algorithmic “metatheories” or “change structures” waiting to become fulfilled by the agency and framed by the context. They may be regarded as “pattern explanations” of states and events. Such may “*consist of ingredients plus recipe that strings them together in such a way as to tell the story of how Y occurs whenever it does occur*” (Mohr 1982, 37). However, contrary to the view of the authors, an evolutionary process is rather open-ended and constructive than prescribed in the long run, and a dialectic process is rather prescribed by the (two) contradictory “thesis” at hand than constructive. On the other hand, Poole (2004, 13) also confesses that studying processes (sequences of events, stages or phases leading to some specific outcome) may become complemented by variance studies refining explanatory variables and “causal explanations” for a specific strategic change. In this view, *process theory* (varying pattern) and *variance theory* (varying cause) would be the main approaches to study change and innovation (also Langley 1999, 692; Mohr 1982, 38).

¹⁰¹ Sitkin (1992) defines not only obvious “*benefits of success*” (e.g. procedural efficiency and confidence; *ibid.*, 233), but also “*liabilities of success*” (e.g. complacency, restricted search and low levels of attention, restricting homogeneity; *ibid.*, 234-236) and “*benefits of failure*” (attention and processing of potential problems, the ease of recognition and interpretation of criteria for failure as compared to success, stimulation of search processes, increased motivation to adapt, increased risk tolerance, requisite variety in response repertoires, the practise of experimentation; *ibid.*, 237-240).

action. If someone has the willingness and the ability to exploit some opportunity not evidently on the table (“the guy has a nice beach, timber and thumb in a right place, so he might come up with a camping site in the wilderness”), things may run *from* those resources *toward* the organized end. A typologist might easily label an entrepreneurial project with the first *or* the second category, following design/planning and developmental approaches, respectively (cf. Boonstra 2004, 447).

In reality, several processes attached to a single entrepreneurial project may have both qualities, as some things are available and others must be constructed (e.g. Vaghely & Julien 2010, 84). Much depends on the “level of analysis”. Categorical claims for superior performance stem from either of these approaches are hazardous or naïve (cf. Baron 2009, 314; Read et al. 2009, 584). These aspects¹⁰², much discussed, are illustrated in Figure 25, aided by the analytical structure of this study. The three dimensions comprehended as continua may essentially capture the numerous *causal powers* underlying the process of emergence (and later on, management) of the entrepreneurial project – the object of our inquiry. *Rather than claiming priority for the positivist or constructivist view to strengthen the walls of these well established paradigm prisons*¹⁰³, *it is proposed that the entrepreneurial projects should be discussed with a more comprehensive framework as demonstrated in Figure 25.*

¹⁰² Opportunity has been the objective core in many studies of entrepreneurship and entrepreneurial actions. Opportunities, which already exist, are discovered and exploited by entrepreneurs (e.g. Eckhardt & Shane 2003, 333; Gaglio 1997, 141; Kirzner 1973, 74; Shane 2003, 6; Shane & Venkataraman 2000, 218; Venkataraman 1997, 120). Being able to perceive and exploit an opportunity is the job of an entrepreneur: she recognizes what is to be done, acquires the necessary resources, and does the job. Whether these kinds of opportunities really exist as objective, independent entities “out there” to be discovered and exploited, is another thing. Many entrepreneurs start with their resources “in here” and look at what could be done with them, approaching the opportunity the opposite direction: she engages with new things to be done within her reach (e.g. Buchanan & Vanberg 1991, 275; Chiles et al. 2007, 486; Dew et al. 2008, 46; Dimov 2007b, 563; Sanz-Velasco 2006, 268; Sarason et al. 2006, 301; Sarasvathy 2001, 251; Wiltbank et al. 2006, 992). Starting from the existing resources and elaborating a bricolage can make part of the sunk costs recoverable (Lanzara 1999, 346), whereas starting with an explicit opportunity implies specific risks and sunk costs attached to just that opportunity.

Within the opportunity view, such is given and only those who have aspirations, traits or inclinations, cognitions, finance and legitimacy to find it and to take it may play the role of an entrepreneur. In this view, the idiosyncratic information that different people have come to possess (or not) about the “opportunities”, is key for the play (Eckhardt & Shane 2003, 345). The flow from the opportunity to a specific performance is moderated by the aspirations, resources and behavioural systems of the actors involved. *This view asks for a method of deducing an appropriate design for just that specific opportunity* (cf. Lanzara 1999, 344). The opportunity “selects” or nominates an entrepreneur.

In the second view, the player with her aspirations, traits or inclinations, cognitions, finance and legitimacy is given, and only the opportunities within her reach may give her a chance to play. In this view, the idiosyncratic resource pool and reachable interactions that different people possess (or not), are key for the play (Sarasvathy & Dew 2005, 543). The flow from the aspirations, resources and behavioural qualities of the actors involved to a specific performance is moderated by the opportunity. *This view asks for a method of bricolage.* The entrepreneur “selects” an opportunity. *In reality, both processes are possible, depending on the case, and also, within a case.*

¹⁰³ Against the logic of this study, the stigmatizing distinction between “entrepreneurs” and “small business owners” (Carland et al. 1984, 358) makes no sense. Both may have chosen a small firm as a platform for their entrepreneurial projects. The typologized managerial style, the contribution to

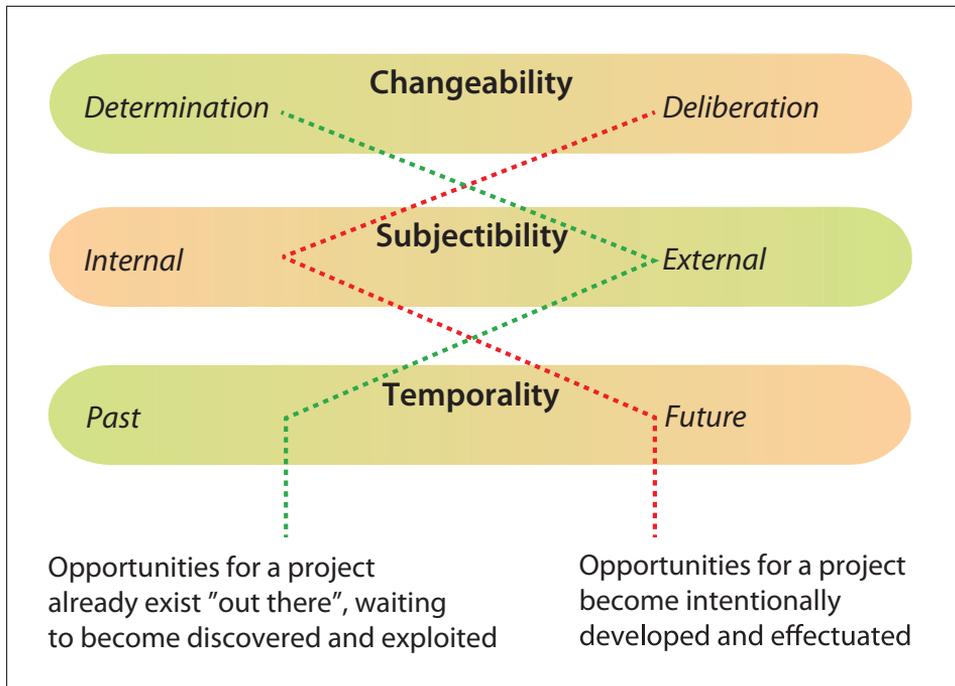


FIGURE 25 Positivist and Constructivist Views on the Opportunities for the Entrepreneurial Projects

Life Cycle of the Entrepreneurial Project

One may also analytically distinguish between the *emergence* of (start-up), the *management* of and the *closure* of an entrepreneurial project (Figure 26), which essentially differ in their qualities, as concluded by Reynolds and Miller (1992,

owners income, profitability and growth may differ a lot between the entrepreneurial projects or, especially, between the stages of their life cycles indeed, but they are all entrepreneurial projects if they meet the novelty and risk criteria. This is a good example of an artificial demarcation line drawn on the basis of the contemporary life cycle stage of the project and some other arbitrary criteria, proposing the "real paradigm" of entrepreneurship research to focus on the "more valuable" true entrepreneurs rather than on the non-glorious small-business owners. It is obvious that social research is easily not value free, but it may be also a fruitless conceptual mess.

Entrepreneurship as a science or perspective has been very much confused with what to study (cf. Cunningham & Lischeron 1991, 56; Gartner et al. 2006, 321). The field has been "a hodgepodge of research" (Shane & Venkataraman 2000, 217) or "a cacophony of results and ideas" and "a bonanza of efforts" (Gartner 2001, 27, 28). "The fragmentation may stem from failure to clearly articulate a workable definition of the phenomenon of entrepreneurship, coupled with its relationships to distinctly different, but overlapping concepts" (Brazeal & Herbert 1999, 31). This is also evident from the above and manifested in the contradictions exposed in the discussions concerning the economic, personal and institutional prescriptions for the entrepreneurial agency. Here, the entrepreneurial agency and, especially, the entrepreneurial project are presented to be research topics in entrepreneurship, to be investigated in a holistic framework in order to achieve some rigorous organization of the field.

416). Acknowledging historical time, the more or less fuzzy start-up stage forms a specific bifurcation point (Vallacher & Nowak 1997, 84) of commitment, opening up some options for the future and closing some other ones, conforming to the idea of path-dependency (David 2005, 151). This general notion seems to be a more relevant starting-point than any strict or more specific life-cycle pattern.

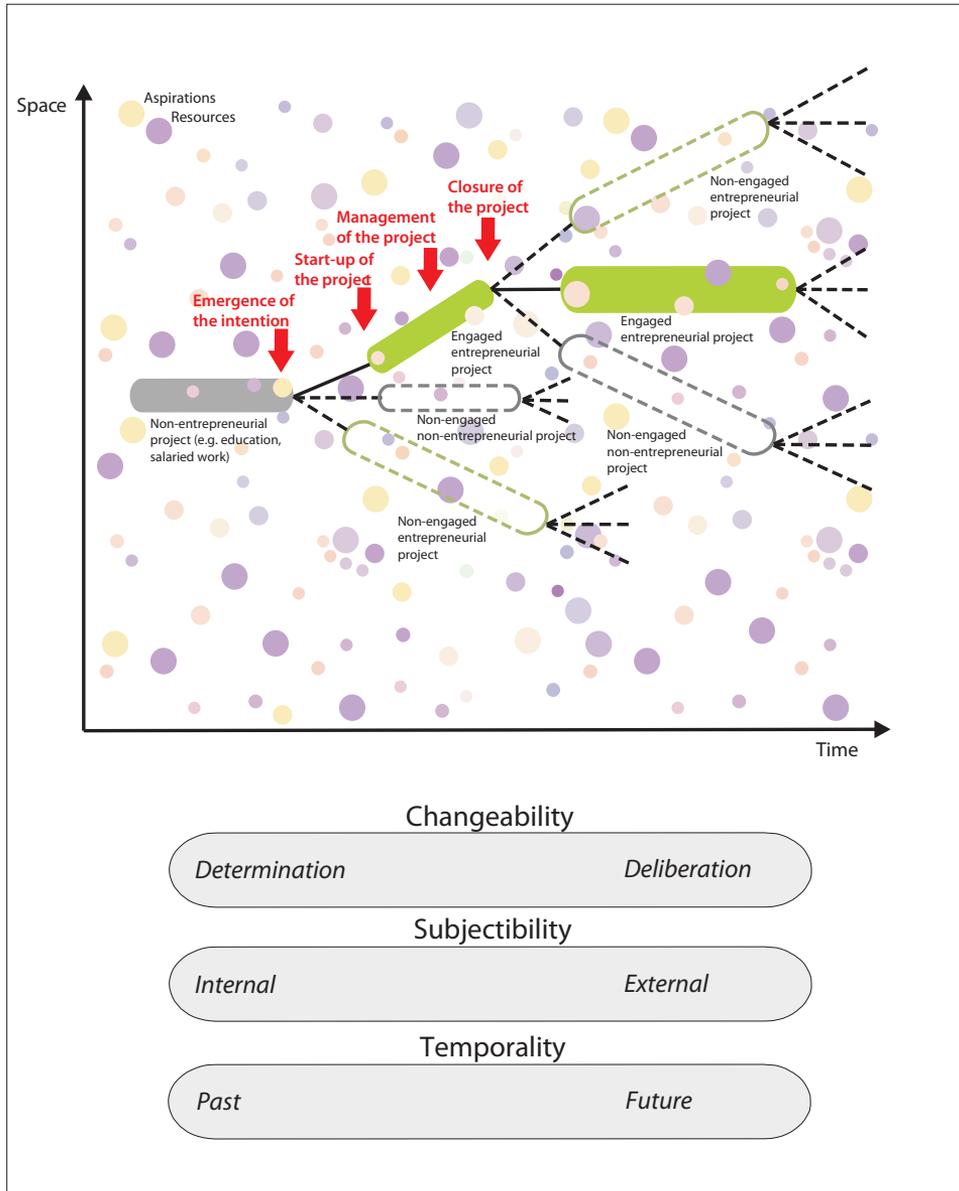


FIGURE 26 Emergence and Management of the Entrepreneurial Project

Regarding *emergence*, a decision to set up a project is – at a certain stage – a discrete choice that originates from the sub-systems of generation, selection and coherence of the entrepreneurial agency, interacting with the economic, personal and institutional agencies. This is essentially an investment decision made under uncertain conditions and along it one often takes an initial but seldom deterministic position on the duration, scale and the aspired impacts of one's commitment to the project. The economic, personal and social-institutional settings around this situation may both afford and constrain a specific choice. *They, or some of them, may push the entrepreneurial agency so that the project springs like toothpaste from the tube or they may form blind spots and concrete blocks for a specific action – they have "causal power" to set up a specific focus gain or sequence of attention, thought and action by their "structural inheritance"*. The project may be well perceived, specified and designed in response to an idiosyncratic opportunity or it may be crafted as a bricolage to effectuate idiosyncratic means at hand, or something in between, but it is always a result of an intentional action.¹⁰⁴ *"Action is the carrying out of the project designed to bring about imagined ends"* (Vaughn 1992, 264) – ends comprised by some deterministic or deliberate aspirations.

The resulting sequence of thought and action may vary a lot among the entrepreneurial projects. In the study of Reynolds and Miller (1992, 409), as much as 33-41 % of the new firms reported sales as the first event: they might have acted upon evident "opportunity". But 83-87 % of the firms reported personal commitment as the first event, reflecting another kind of gestation process closer to development.¹⁰⁵ Many of the intended projects do not even enter the start up phase (Parker & Belghitar 2006, 86). The process of setting up an entrepreneurial project may be very short or very long, often non-stepwise, typically unstructured and "messy" (Shane 2008, 72). Just as the huge diversity of the gestation periods (Reynolds & Miller 1992, 408; based on their findings of more than 3,000 observations) suggest, the reality knows many kinds of stories:¹⁰⁶

¹⁰⁴ Setting up the process starting from the "opportunity" or from the "resources" is a reasonable idea, but scholars with a typologist mind-set have tended to endogeneize many more dimensions in their archetypes. It is doubtful, for example, why some rather common aspects of competences (Sarasvathy 2001, 251) or marketing (Alvarez & Barney 2007, 17) should be claimed to belong just to either of these. In finding some empirical and contextual regularities along explorative exercises such is common, but as rigorous theorizing efforts such looks like manufacturing of conceptual mess.

¹⁰⁵ The events reported included personal commitment of the principal (investment of time and/or personal resources), initial outside financial support, initial sales and initial hiring (Reynolds & Miller 1992, 408).

¹⁰⁶ Flores and Gray (2000, 22) have discussed "wired life" as a new form of working life, challenging traditional careers and echoing the role of projects in this particular kind of strategy: *"...these lives ... are constituted by a series of projects. Such projects, in themselves, differ from careers in that they do not have the intended benefit of grounding the identity of an individual. Though they may include certain short-term commitment, they are not based on any commitment with oneself or others to live a particular kind of life. They are born out of an interest in expressing a talent or inspiration."* The concept of the project is also valid outside the field of entrepreneurship.

“If most new firms were to report all four events [personal commitment, financial support, sales, and hiring], in the same sequence, and take about the same amount of time, the analogy to the gestation period for living systems would be quite strong. We found that none of these features of gestation period in living systems are shared by new firms. Not all events occur. Every possible sequence of events was present. There is substantial variation in length of the gestation period.”

Adding the genuine future uncertainty of the outcome, the introduction of an entrepreneurial project by setting up a boundary¹⁰⁷ for the aspirations, resources and behavioural systems to work as a coherent whole by the entrepreneurial agency may be a test of a specific opportunity (whether it is exploitable) or may be the test of a specific bundle of resources (whether they are effectuate), or both.

Both setting up and *managing* such a project as an intentional exercise is often based on some (multidimensional) “strategic reference points” (Fiegenbaum et al. 1996, 228; Kahneman & Tversky 1979, 274; Knudsen 2008, 24; Lee 1997, 73; Shoham & Fiegenbaum 2002, 128) for the aspired performance – which are more or less well conceived and specified – which may be placed along the continuums of changeability (deterministic – deliberate), subjectibility (internal – external) and temporality (past – future). Success in achieving aspired “fits” means the fulfilment of aspirations of the owner of the project (the entrepreneur), the accumulation of her resources of many kinds, and the development of the behavioural systems as new layers of “structural inheritance” accumulate. A project may be also *closed* for a variety of reasons: due to not achieving some deterministic external performance thresholds, due to not serving some internal aspirations despite their broad feasibility ranges of performance, due to incidental interactions introducing ideas for better projects, and more (c.f. DeTienne 2010, 212). Eventually, the stages within the life-cycle of an entrepreneurial project may be traced back to the influence of the various domains (economic, personal and institutional agencies) and described by the three continuums of changeability, subjectibility and temporality.

A small firm managed by the entrepreneur, in turn, benefits from the entrepreneurial agency with its projects in disproportionate amounts, enhancing adaptation of this “species” by establishing “fits” that realize differential utilization of resources, fostering its survival and success in the struggle for aspirations and resources. Small firms as a social sub-population and instrumental nexus of exchange and transformation, carries

¹⁰⁷ For analytical purposes, various definitions are needed to capture the object of the analysis. Emerging organizations with vague structures and dynamic processes are problematic in this respect (e.g. Katz & Gartner 1988, 430). Such are common platforms for entrepreneurial projects. Katz and Gartner have proposed to use properties related to the intention, resources, boundary and exchange to identify in studying these kinds of organizations (ibid., 433). Chrisman et al. (1998, 9-19) would employ a long list of variables featuring the entrepreneur, industrial structure, business strategy, resources, and organizational structure, processes and systems to capture their performance. Bergmann Lichtenstein and Brush (2001, 53) emphasized the pronounced role of intangible resources in the early stages development. The entrepreneurial project may focus the analytical attention to a more meaningful target.

disproportionate amounts of these “entrepreneurial genes” by the entrepreneurial agency, providing valuable codes for society: codes for coping with novelty and uncertainty in the introduction of projects providing spatially, temporally or compositionally differential resource use in the quest of fulfilling aspirations. This makes it a very specific business vehicle. These ideas also summarize the findings of our long search for the small firm specificity.

3.5 Small Firm as a Platform for the Entrepreneurial Projects

The analytical structure elaborated here makes it also possible to identify the more enduring specificity and role of the small firm “species”, which is connected to entrepreneurship. Entrepreneurship is about making a difference, a specific process of finding and establishing “fits” between aspirations, resources and behaviours, related to an entrepreneurial project. It is easy to connect this feature to small firms. Consequently, it is not very uncommon to consider entrepreneurship as the creation of new firms (e.g. Aldrich & Ruef 2006, 64; Brush et al. 2008, 547; Bygrave & Hofer 1991, 14; Campbell 1992, 22; Gartner 1988, 27; Hisrich & Peters 1995, 10; Low 2001, 19; Low & Abramson 1997, 437; Sautet 2000, 74-75; Sharma & Chrisman 1999, 17; Thornton 1999, 20). Indeed, organizations need their founders, since “organizations cannot recruit them, because organizations don’t exist until founders construct them” (Aldrich & Ruef 2006, 65). The entrepreneurial agency may do the job (Shepherd & Wiklund 2005, 68), but reserving it only for that job is a doubtful restriction.

A new firm – in most cases a small one – is essentially a boundary for specific resources and behavioural systems forming a platform, a nexus, for exchange and transformation of aspirations and resources. Technically, setting up a small firm is not a major effort and may be done in a few moments. But it is the *services* that are provided (cf. Penrose 1995, 31-32; Witt 2007, 1126) in the form of the entrepreneurial projects residing within the firm that are the innovations, and it is the willingness and the ability to introduce and organize these *through* the small firm that makes the difference. Someone willing and able to take up the entrepreneurial agency is by no means restricted to a specific platform of exchange and transformation while introducing her project. *The entrepreneurial project may be, among others, of an artistic, cultural, political, social, civic, military, criminal or economic quality, and a small firm as a platform for such is just one choice, often much affected by the quality of the project and the surrounding agencies. “Entrepreneurship can be practised in many domains of life”* (Flores & Gray 2000, 28). Probing into uncertainty by conjectures open to refutation “*is entrepreneurial activity, of which economic entrepreneurship is a very important special case*” (Loasby 2007, 1104). For reasons (e.g. efficiency, legitimacy) existing, perceived or imagined, the choice for the platform *may* be a small firm.

An entrepreneur (or a team of them) owning the project may choose to sell (or licence) or to manage it when she “*has exclusive property rights for a project, and possesses skills which are uniquely needed to carry it out*” (de Fraja 1996, 89). Aside from the characteristics of the entrepreneurial agency and the characteristics of the project itself, the characteristics of an organization capable of carrying and hosting entrepreneurial projects, is in our interest. This is the prime role of a small firm

(Figure 27). The resources and behavioural systems may accumulate and develop within the boundary of a small firm as an outcome of the entrepreneurial project(s). The small firm, consequently, forms one observation point for performance. But before this, it is just an instrumental frame (also Sarasvathy 2004, 529) to be filled with the entrepreneurial project(s).

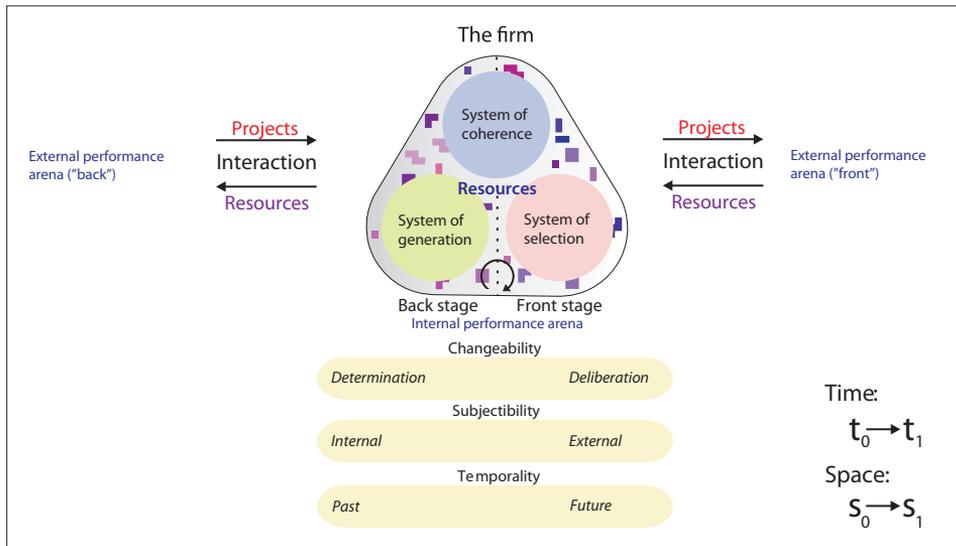


FIGURE 27 Small Firm as a Platform for Entrepreneurial Projects

The owner of an entrepreneurial project may organize her “*controlled experiment*” inside a small firm (Foss et al. 2007b, 1175). Particular configurations of small firms in terms of projects may be more prevalent than others, and changes to the configuration may be risky and troublesome, if such become necessary due to an initial “wrong” track, changes in the environment or internal changes (e.g. growth along expanding projects or arising from the introduction of additional projects) of the organization (Miller 1987, 686, 698).¹⁰⁸ Steps taken on the selected path may reduce changeability (cf. Chan et al. 2006, 437). In any case, setting up a small firm may be “the” step capturing “the” opportunity or the first step towards constructing opportunities; in both cases it is the business vehicle of the entrepreneurial agency, a platform for entrepreneurial projects, and a nexus for exchange and transformation of resources and aspirations.

On the other hand, the small firm is not able to introduce situational novelty in its environment *before* engaging in productive action. In some cases, the life span of an entrepreneurial project may be the same as that of the hosting firm, and the stories of the two may coincide in that sense. In other cases, several parallel or subsequent entrepreneurial projects may give life to a small firm. Growth of the small firm, for example, may arise from the introduction of additional projects as a portfolio or from the expansion of a single project, observable as some sort

¹⁰⁸ Configurations have parallels in biology, where changeability is limited.

of small firm life cycle (Churchill & Lewis 1983, 20; Greiner 1972, 37; Rutherford et al. 2003, 331), life course (Aldrich & Ruef 2006, 163), trajectory (Macpherson & Holt 2007, 172) or development path (North & Smallbone 1996, 157), depending on what term one is inclined to use.

3.6 Conclusion: Understanding the Small Firm World

Taking stock, the views and boundaries of various sciences, their sub-fields, theories and empirical findings have been mined *from* the small firm world and an entrepreneurship point of view – rather than vice versa – to find metaconjectures and analytical structures with an appropriate level of abstraction. While recognizing that so many small firms exist despite their “apparent” disadvantages, there must be some enduring forces at play that maintain this “species”. These may result in new ways of using competed resources distinctively or in new ways of finding and exploiting sources of isolation in the resource use, by serving aspirations that are not served by others. *Finding these contingencies, or enacting and constructing them, asks for situational generation of novelty in time and/or space, which is facilitated by the entrepreneurial agency residing abundantly within small firms.* The entrepreneurial agency, specifically, introduces risky innovation *projects* for experimentation, for the evolutionary test in meeting various aspirations. The outcome of these projects is not known *ex ante* because the future may not be known, but the committed resources may be controlled for to a larger extent.

The economic, personal and institutional agencies with their “structural inheritance” both afford and constrain¹⁰⁹ the emergence of this kind of an agency by their causal powers through directing and sequencing attention, thought and action (focus-gain) along the informational or material interaction, having a growing explanatory and predictive relevance along the life cycle of the emerging project. The forces of the existing agencies define the qualities of the entrepreneurial agency, placing it on the continua of changeability, subjectibility and temporality in diverse qualities. The initial embryo of the emerging project may be very much incidental and imaginary, a slippery object to be grasped by conventional explanations. As soon as the project is taken up, they may provide more relevant conventional explanations for its management, but before that engagement the would-be carrier of the entrepreneurial agency must rely on

¹⁰⁹ Also the economic, personal and institutional agencies have systems of generation, selection and coherence, rather than just some of them. Quite often markets are set higher in the hierarchy and granted the role of selector for the successful projects, but similarly the personal and institutional agencies may select a certain project positively or negatively. The genuine multidimensionality of the entrepreneurial agency and project means that appropriate “fits” are to be found with many domains. Simultaneity is easier to deal with an appropriate assumption of order (as “givens” in the neo-classical economics), but then one becomes bound to that specific assumption. Basically, absolute relativism of simultaneity may be resolved by differential powers of the agencies (leading to focus-gain among hypothetical alternatives of observing, enacting and committing to a specific course of action) or by differential ability of the agencies to enforce or facilitate the sequencing of events (leading to specific trajectories or courses of thought and action) in a specific situation.

uncertain cues about the state of the world and the events of the future, or on her capacity to cope whatever comes along. *Taking a dynamic view on this social sub-world, the powers to focus-gain and sequencing of thought and action are the outcomes of these interactions having causal effects. Heterogeneity, uncertainty and commitment are the key concepts to comprehend entrepreneurship and the small firm world.*

The small firm is one possible platform (evidently the most important one) for one or several entrepreneurial projects. The concept of an entrepreneurial project as the product of the entrepreneurial agency may resolve the traditional boundary problems caused by the ambiguous attachment of the entrepreneurial agency to markets, individuals and institutions. *Research in the area of entrepreneurship has been lacking a solid research object, which should not be the markets, the persons or the institutions (or the small firms), but the entrepreneurial agency with her entrepreneurial projects.* The multitude of entrepreneurial projects opens up a concrete avenue for studying entrepreneurship and the small firm world to grasp its multidimensionality, heterogenous performance and dynamic interaction as they become manifested in the adaptation of the system and its elements, observable from several points of observation. To qualify as an entrepreneurial project, such should include the possibility to introduce situational novelty (novelty criteria) and the possibility of failure of the project and entrepreneurial agency (risk criteria). An entrepreneur is someone who introduces and owns an entrepreneurial project by taking up the entrepreneurial agency. There could be many projects run by one person and many projects within one firm, serially or as a portfolio. The project may be initiated and finished for a variety of reasons.

Various structures of the aspirations, resources and behavioural systems of generation, selection and coherence within the agencies as the “structural inheritance” may have an impact on the emergence, start-up and management of the entrepreneurial projects. *Changeability, subjectibility¹¹⁰ and temporality provide relevant analytical dimensions for framing, describing and explaining the phenomena.* Essentially, the shocking array of concepts developed by scholars for those purposes, may be traced back and placed on these continua. Someone aspiring and having an intention to set up and manage that kind of a risky innovation project with outcome uncertainty, has to cope simultaneously (and not only) with the economic, personal and social-institutional aspects related to the willingness and the ability to play the role of an entrepreneur. The *opportunity view* of an entrepreneurial project seems to frame situations where one is able to “find” an obvious tentative fit¹¹¹ between the constituting aspirations, resources

¹¹⁰ One may specify subjectibility also on a different basis for different research needs. The demarcation line between internal and external may be drawn within a project, firm, family, region, culture, state or whatsoever relevant for the research act.

¹¹¹ It should be emphasized that biological evolution does not select the “best” or “optimal” of the existing variations, but just those that are good enough to survive in the population. Also in the social world, and here with the entrepreneurial projects, an “appropriate fit” above some threshold allowing exchange is enough for the existence of the project within its surroundings, above which its success may vary a lot. The “optimal” or “maximizing” fit is a limited special case in the social and economic reality, even though it of special interest in conventional economic theory.

and behaviours, whereas the *bricolage view* of an entrepreneurial project seems to frame situations where this fit has to be “constructed”,¹¹² although both views are idealized ones as seen against the messy reality.

An evident opportunity for the project is a deterministic product of the external past, whereas the project as a bricolage arises from internal deliberation toward the future. The two views try to illuminate the role of the more or less well conceived and specified multidimensional economic, personal and institutional “*strategic reference points*” for the emergence and management of the strategic project, which may be placed on the continua of changeability (deterministic – deliberate), subjectibility (internal – external) and temporality (past – future). The views also deal with *economics, psychology and sociology of risk* related to a specific opportunity and to a specific effort. Just as success of the project implies meeting some multidimensional aspirations, failure of the project implies realization of some multidimensional risks. Essentially, despite the cues and wisdom employed in arriving at the start-up of an entrepreneurial project, it is always a risky trial-and-error commitment, since the future may not be known. Despite the human intentionality in the areas of commitment and control, “*progress, instead, is by trial and error*” (Mayer 1976, 42) following the evolutionary epistemology.

In addition to the benefits of achieving a more logical and comprehensive acknowledgement of changeability and subjectibility, placing the entrepreneurial project into the core of investigation makes it possible to acknowledge explicitly the role of irreversible historical time – so often an ignored fact of the reality having so much influence on the social life. As long as the human race has existed, a would-be entrepreneur has been able to start with the existing “inheritance” of aspirations, resources and behavioural prescriptions rather than with *tabula rasa*. To that end, one does not have to take the idealistic (“*reasons will guide practice*”; Feyerabend 1993, 222) or the naturalistic (“*reason receives both its content and its authority from practice*”; *ibid.*, 222) stance as the paradigm to make inquiries in this world, but one may observe both views as enabled and constrained by the “reasons” and the “practice”. *The existing “structural inheritance” may provide reasons for future practice, but since the future interactions may not be foreseen with their consequences, they remain to be faced along the practice arising from the commitment.*

A specific aspiration may lead to diverse intentions and a specific intention may lead to diverse projects or die out in various moments along the way, but a realized entrepreneurial project will change the world, the “structural inheritance” for the next thoughts and actions to come (Figure 28). *Situational novelty and the risk of failure of the entrepreneurial agency introducing the project are the main criteria for qualifying as an entrepreneurial project. The novelty may be local (drawing on imitated components) or more global. The criteria, of course, are a matter of convention as everything in the social life.*

¹¹² The idea is not new at all. Aristotle discussed the theme of *craft knowledge* about 350 years B.C. in his texts included in *Nicomachean Ethics* (Aristotle 1999, 88-89): “*What admits of being otherwise includes what is produced and what is achieved in action ... Every craft is concerned with coming to be, and the exercise of the craft is the study of how something that admits of being and not being comes to be, something whose principle is in the producer and not in the product. For a craft is not concerned with things that are or come to be by necessity; not with things that are by nature, since these have their principle in themselves.*”

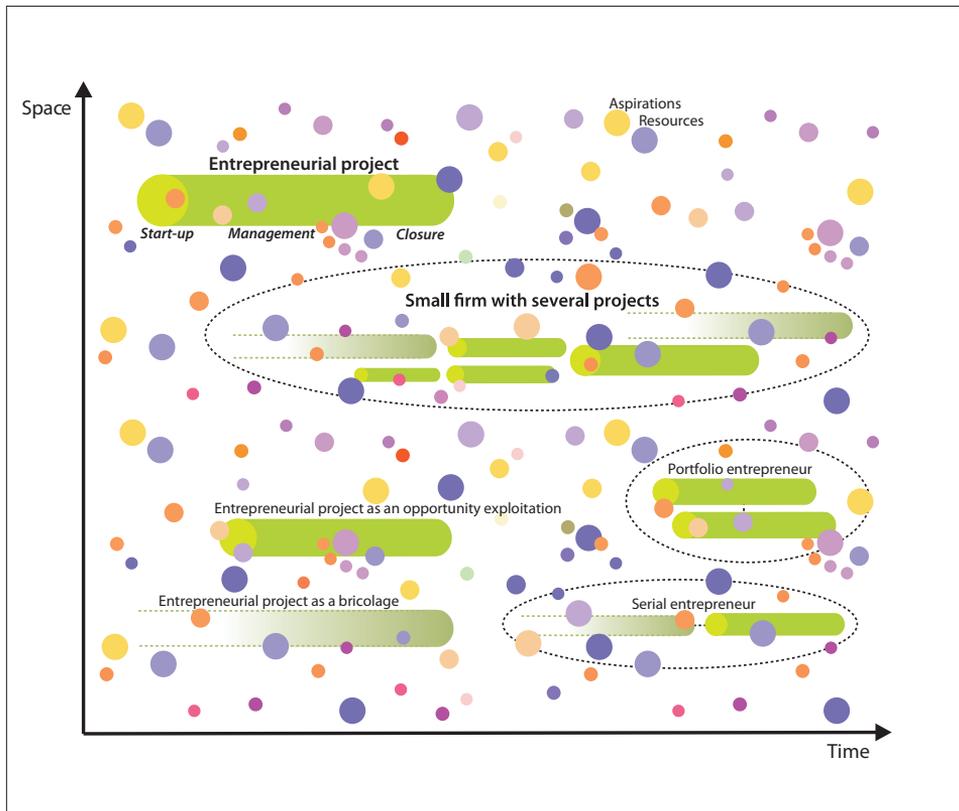


FIGURE 28 Diverse Constellations of Entrepreneurial Projects

The small firm world is characterized by the generous presence of the entrepreneurial agency. By its action, it may create new markets, make known that which is unknown and may reconfigure institutionalized thoughts, actions and interactions. The experimental approach to the unknown brought about by the entrepreneurial agency, residing so widely in this sub-population of firms, may provide new means for fulfilling aspirations of the whole population. Losing “one small sheep” in this risky experiment does not endanger the whole “herd”. It is not uncommon that large firms “keep an eye on” and buy small firms to get, assimilate and propagate their successful experiments¹¹³ and that some small

¹¹³ This resembles the case, where mixtures of conditional and canalized individuals occur in a biological population. Large firms may have a more limited “genetic pool” generating “canalized polymorphism” to the evolutionary test, whereas small firms may possess a “genetic” threshold trait for a conditional strategy by environmental induction (e.g. easier on/off developmental switch in responding to an environmental stimulus; cf. Hazel et al. 2004, 898 for a biological analogue). Through a transitory stage, the population may shift “from one canalized phenotype to another” by genetically assimilating the particular response to the environmental stimulus (ibid., 898). In biology, the conditional strategy is essentially a manifestation of changeability, a common adaptation to spatial and temporal heterogeneity, especially if there is migration between subpopulations (ibid., 896-897).

firms may grow fast driven by their innovations. Heterogeneity of numerous small firms, acting in their own worlds, make them a powerful force that is more difficult to control than more extensively “wired” large firms.

Due to the underlying heterogeneity and multidimensionality, metatheoretical “grey-boxing” may be an appropriate approach to establish a meaningful and comprehensive analytical structure to capture this world as a benchmark for more disciplined and contextual studies. In this chapter, we have finished the refinement of the preliminary analytical structure to capture the dynamic phenomena of performance and adaptation (Chapter 2) specifically relevant for small firms. “Being able to define something is not the same as *understanding it*” (Wickham 2004, 7). The phenomena of this world have been surrounded and besieged by a number of metaconjectures and other analytical structures to understand them. Finnish writer Aila Meriluoto once said that poetry is a metatheory of life: *poets place life under siege by words [to understand it better]*. One couldn’t have described a metatheory – our next object of inquiry – better!



Part II

**METATHEORY OF SMALL FIRM PERFORMANCE
AND ENTREPRENEURSHIP**



4 Metatheory of Small Firm Performance and Entrepreneurship

4.1 The Concept of “Metatheory”

The Need of Metatheories

Constructing theories is very human. All our explanations and predictions are somehow “theoretical” and based on some pattern, script, logic or cue – true or not. But theories of social reality are partial and also contradictory in nature. Yes, a firm may adapt to find a better “fit” with the environment. Yes, the environment may “select” the firm (or rather, its offerings) positively or negatively. Yes, the “fit” may be based on the exploitation of an evident opportunity. Yes, an opportunity may be constructed by the entrepreneur. *Confessing partiality and complementarity of explanations, is the starting point of any more comprehensive wisdom of social reality.* Unlike many natural sciences, the research objects of “sciences of the artificial” are like quick silver; volatile and flexible. We construct many kinds of theories, intentionally and unconsciously, and they are much valued when we confront a problem, a concern or a desire. The (epistemological) problem of what theory to use in each situation and context becomes accurate. Over time, some theories become obsolete and they are replaced by new theories. *The Hitchiker’s Guide to the Galaxy* elegantly features this universal process (Adams 1979, 48-49):

“One of the things Ford Prefect had always found hardest to understand about humans was their habit of continually stating and repeating the very very obvious, as in It’s a nice day, or You’re very tall, or Oh dear you seem to have fallen down a thirty-foot well, are you all right? At first Ford had formed a theory to account for this strange behavior. If human beings don’t keep exercising their lips, he thought, their mouths probably seize up. After a few months’ consideration and observation he abandoned this theory in favor of a new one. If they don’t keep on exercising their lips, he thought, their brains start working. After a while he abandoned this one as well as being obstructively cynical and decided he quite liked human beings after all, but he always remained desperately worried about the terrible number of things they didn’t know about.”

These deep thoughts are closely linked with the philosophy of science. To account for the progress of science, new theories should be developed that are *better* than old ones. Looking at the small firm world and entrepreneurship with a bird's eye, the most distinctive observation is heterogeneity. In this kind of a world, the positivistic and empiricist account tend to produce either limited "snapshots" of the reality or very general level Platonian universals. On the other extreme, the constructivist account producing particulars – contextual "snapshots" of reality – tend to face a frontier problem of generalizability. Both have problems in coping with the multidimensionality of the phenomena.

In this kind of a world it becomes difficult to see what theory to use in each occasion and how novel scientific understanding should be generated. Should one work with Kuhnian *paradigmatic mindset* of "theoretical monopoly" (Feyerabend 1993, 31-32; Lakatos 1970, 155) of a "scientific community" making "normal science" within one dominant paradigm until displaced by another one along a "scientific revolution" (Kuhn 1970, 162-167)? Then, scientific progress would be like travelling on one trail and occasionally just changing a trail when one breaks up. Following the trail of "normal science" in the small firm world and entrepreneurship research would be quite impossible, since that kind of a single rail does not exist. Lakatos (1970, 178) does not prefer this road on more general grounds:

"... in 'normal' periods the dominant paradigm secures a pattern of growth which is eventually overthrown by a 'crisis'. There is no particular rational cause for the appearance of Kuhnian 'crisis' ... Then a new 'paradigm' emerges, incommensurable with its predecessor. There are no rational standards for their comparison. Each paradigm contains its own standards. The crisis sweeps away not only the old theories and rules but also the standards which made us respect them. The new paradigm brings in totally new rationality. There are no super-paradigmatic standards."

Popper is also suspicious of the idea of "normal science" (Popper 1970, 53, 55):

"The success of the 'normal' scientist consists, entirely, in showing that the ruling theory can be properly and satisfactorily applied in order to reach a solution of the puzzle in question ... I do not agree that the history of science supports his doctrine ... that 'normally' we have one dominant theory – a 'paradigm' – in each scientific domain, and that the history of a science consists in a sequence of dominant theories, with intervening revolutionary periods of 'extraordinary' science; periods which he describes as if communication between scientists had broken down, owing to the absence of a dominant theory."

Many of Popper's own ideas call for working with a (methodological) *falsificationist* mindset by considering only things that may *in principle* be "overthrown" by criticism (e.g. Popper 1963, 309). Scientific progress is provided by working with conjectures and refutations, a bit like the experimenting entrepreneur does. She puts forward hypotheses and learns from her mistakes, from hypotheses that were not working (Winch 1974, 890). Popper himself explains (*ibid.*, 68-69):

"Assume that we have deliberately made it our task to live in this unknown world of ours ... and to explain it, if possible (we need not assume that it is), and as far as possible, with the help of laws and explanatory theories. If we have made this our

task, then there is no more rational procedure than the method of trial and error – of conjecture and refutation: of boldly proposing theories; of trying out best to show that these are erroneous; and of accepting them tentatively if our critical efforts are unsuccessful ... The critical attitude might be described as the result of a conscious attempt to make our theories, our conjectures, suffer in our stead in the struggle for the survival of the fittest ... We thus obtain the fittest theory within our reach by the elimination of those which are less fit (By 'fitness' I do not mean merely 'usefulness' but truth)."

Considering that small firms and entrepreneurial projects are heterogeneous, and their survival lies in their ability to introduce situational novelty in diverse environments, that constituencies exhibit some flexibility of adaptive behaviour and latitude for performance thresholds as varying "fits" in the many arenas of interaction, it becomes evident that detailed generalizable laws and explanatory theories for this kind of a world are rather difficult to construct but rather easy to falsify as, for example, simple variation (i.e., refutation as anomaly). Rigorous falsification by statistical rules would easily overthrow many conjectures. Puritanical falsification may result in a "no train, no rail" situation. Lakatos thought that clear-cut falsificationism, taking refutation of everything as a guideline is like "Lucifer ... the chap who brings false light" and, instead, "darkness of truth" should be accepted (Lakatos 1973a, 312-313). Albeit from being also a question of precision of explanation, the lack of more general guidelines (possibly a bit dark or grey and not that falsifiable) may lead to fragmentation of thought, as very evident in small firm and entrepreneurship research. Lakatos (1970, 113, 136-137) saw naïve falsificationism as a dead end:

"He [methodological falsificationist] is fully aware of the risks but insists one has to choose between some sort of methodological falsificationism and irrationalism. He offers a game in which one has little hope of winning, but claims that it is still better to play than to give up ... once a theory is 'refused' by experiment (by their rule book), it is irrational (and dishonest) to develop it further: one has to replace the old 'refuted' by a new, unrefuted one."

In the small firm world there are so many different cases of situational novelty and relational performance settings that "progress of science" becomes hard by working with only one paradigm or by falsification of numerous middle-range or local theories. Then, an "unfalsified theory" (i.e. corroborated theory) may be very local and limited in scope and its powers to generate understandings of the complexity of the holistic system behaviours may be very poor. Some more general and stable analytical guidance would be useful.

In the "game-theoretical" philosophy of science, as illustrated above by Lakatos, *research programmes* and *sophisticated falsificationism* take a kind of middle-of-the-road perspective. They may contain broad theoretical foundations (rather than one paradigm) and allow methodological plurality. Rather than disregarding obsolete paradigms or falsified conjectures, progress is provided by the evolving programmes and their falsifiable parts (Lakatos 1970, 132): "... *sophisticated falsificationism ... replaces the concept of theory as the basic concept of logic of discovery by the concept of series of theories". Rather than replacing falsified hypothesis with better ones, any hypothesis could become replaced by a better*

one (ibid., 122).¹¹⁴ The “hard core” of a research programme (research questions, general assumptions etc.) is protected from refutation by a “rational decision” as long as the programme is running (ibid., 133-134). Instead, several auxiliary and middle-range “observational” theories around it form a “protective belt”, which is subjected to testing with the possibility of refutation and replacement by new ones.¹¹⁵ The “negative heuristic” of not challenging the hard core provides endurance and stability for the “positive heuristic” to work through modification and sophistication of the “refutable” protective belt by directing the *modus tollens* at it (ibid., 133, 135). The “hard core” programmes construction of the protective belts (ibid., 155), through which the whole scientific research programme becomes “updated”. The autonomy of the research programme as a partly “self-organizing” system provides positive heuristics on where to go by following rather verifications¹¹⁶ than refutations as contact points with reality (ibid., 137). Positive heuristics “saves the scientist from becoming confused by the ocean of anomalies” (ibid.,

¹¹⁴ Besides naïve falsification, Popper himself has presented (in the *Metaphysical Epilogue*) important first ideas of a research programme (Popper 1982, 161):

“In science, problem situations are the result, as a rule, of three factors. One is the discovery of an inconsistency within the ruling theory. A second is the discovery of an inconsistency between theory and experiment – the experimental falsification of the theory. The third, and perhaps the most important one, is the relation between the theory and what may be called the ‘metaphysical research programme’.

In using this term I wish to draw attention to the fact that in almost every phase of the development of science we are under the sway of metaphysical – that is, untestable – ideas; ideas which not only determine what problems of explanation we shall choose to attack, but also what kinds of answers we shall consider as fitting or satisfactory or acceptable, and as improvements of, or advances on, earlier answers.

By raising the problems of explanation which the theory is designed to solve, the metaphysical research programme makes it possible to judge the success of the theory as an explanation. On the other hand, the critical discussion of the theory and of its results may lead to a change in the research programme (usually an unconscious change, as the programme is often held unconsciously, and taken for granted), or to its replacement by another programme. These programmes are only occasionally discussed as such: more often, they are implicit in the theories and in the attitudes and judgments of the scientists.

I call these research programmes ‘metaphysical’ also because they result from general views of the structure of the world and, at the same time, from general views of the problem situation in physical cosmology. I call them ‘research programmes’ because they incorporate, together with a view of what the most pressing problems are, a general idea of what a satisfactory solution of these problems would look like”.

¹¹⁵ *“We retain a syntactically metaphysical theory as the ‘hard core’ of a research programme as long as its associated positive heuristic produces a progressive problemshift in the ‘protective belt’ of auxiliary hypothesis” (Lakatos 1970, 126).*

¹¹⁶ *It is worth of noting that “a ‘verification’ is a corroboration of excess content in the expanding programme ... a ‘verification’ does not verify a programme: it shows only its heuristic power” (Lakatos 1970, 137).*

135). Inconsistent theories compete within a single research programme and various research programmes compete against others as cohesive wholes (ibid., 130, 155).¹¹⁷

A research programme may be abandoned when a more exhaustive or powerful rival programme emerges (Lakatos 1970, 116, 122) or when the programme degenerates and is unable to generate novel research findings, “*when the positive heuristic ran out of steam*” (ibid., 134, 137).¹¹⁸ It may take a long time before the “factual novelty” of the heuristic power of a rival research programme may be seen (ibid., 156): “*A new research programme ... may start by explaining ‘old facts’ in a novel way but may take a very long time before it is seen to produce ‘genuinely novel’ facts*”. Novel facts outside the ingredients of the research programme are important in the evaluation (Lakatos 1973b, 108). An “old” programme may make a comeback by producing a new content-increasing version with its verification (Lakatos 1970, 158). Finally, rather than becoming rejected and instantly overthrown by a “crucial experiment”, a programme may just be left by people working with it (ibid., 157, 173).

The scientific progress provided by research programmes may be generally evaluated based on their internal consistency, unifying potential, originality, attractiveness and heuristic power (Leong 1985, 36-37). In the view of Lakatos (1970, 176), they may open up the avenue for “*mature science*” with anticipation of novel facts and novel auxiliary theories as manifestations of the heuristic power. Then, the chaos of “*immature science*” of “*pedestrian trial-and-error*” lacking a unifying idea, heuristic power and continuity, may escape (ibid., 175-176). The three broad methodologies by Kuhn, Popper and Lakatos proposed to provide scientific progress are liberally summarized in Figure 29.

¹¹⁷ Lakatos (1970, 129-130) explains: “*In the pluralistic model the clash is not ‘between theories and facts’ but between two high-level theories: between an interpretative theory to provide the facts and an explanatory theory to explain them ... In a pluralistic model we may decide, alternatively, to regard the higher-level theory as an interpretative theory to judge the ‘facts’ delivered from outside: in case of a clash we may reject the ‘facts’ as ‘monsters’. In a pluralistic model of testing, several theories – more or less deductively organized – are soldered together ... The problem is then shifted from the old problem of replacing a theory refuted by ‘facts’ to the new problem of how to resolve inconsistencies between closely related theories.*”

¹¹⁸ Regarding falsification more precisely, a theory may become falsified when a new theory has excess empirical content (*i.e.*, it predicts novel facts improbable or forbidden by extant theory; acceptability 1), and some of this excess content is (empirically) verified (acceptability 2) and corroborated (Lakatos 1970, 116).

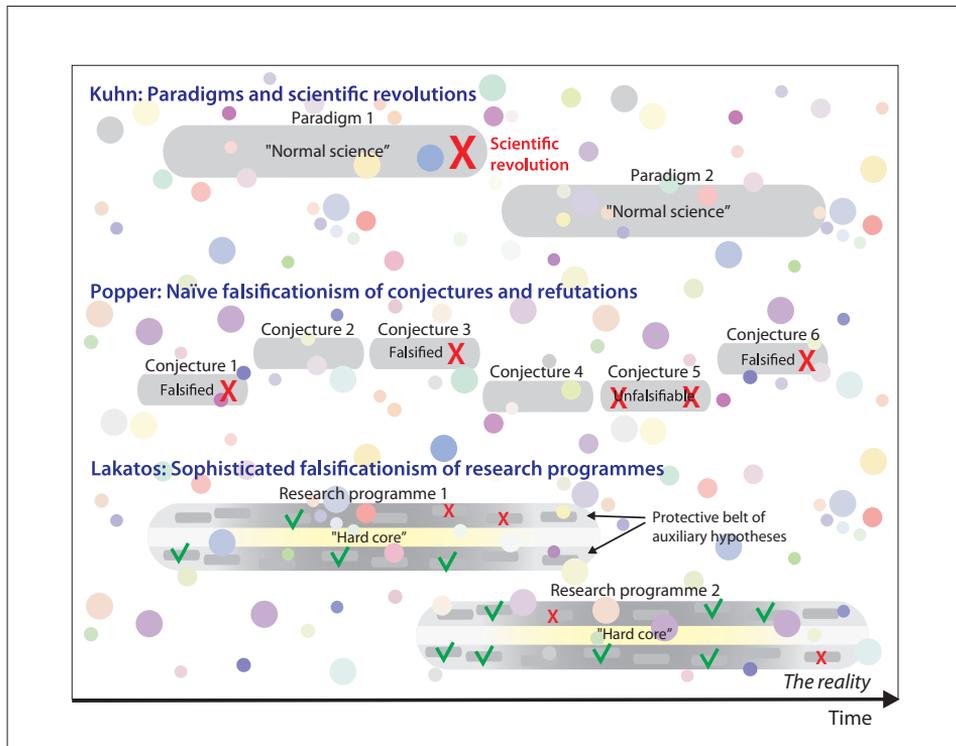


FIGURE 29 Illustrations of Logics of Growth of Science: Kuhn, Popper and Lakatos

The Lakatosian sophisticated falsificationism may build down “paradigm prisons” of getting stuck with the choice-selection type fruitless confrontation by placing them on the protective belt of observational theories, rather than considering one or the other as the single “hard core” of the small firm world research programme. In social reality, the amount of “anomalies” in any theory is significant since *“human beings are not completely rational”* (Lakatos 1981, 119). The stability of the “hard core” of the research programme may alleviate this problem and prevent pedestrian walks following some single paradigmatic view. *The “hard core” of the research programme is metatheoretical in character.* It forms the normative and interpretative backbone for the growth of scientific knowledge and understanding by articulating the “unchanging standards” of evaluation (Motterlini 2002, 504). Lakatos (1981, 123-124) strongly emphasises the role of the interpretative “hard core” in the rational reconstruction of knowledge:

“Each rational reconstruction produces some characteristic pattern of rational growth of scientific knowledge. But all of these normative reconstructions may have to be supplemented by empirical external theories to explain the residual non-rational factors. The history of science is always richer than its rational reconstruction. But rational reconstruction or internal history is primary, external history only secondary, since the most important problems of external history are defined by internal history. External history either provides non-rational explanation of the speed, locality,

selectiveness, etc. of historic events as interpreted in terms of internal history; or, when history differs from its rational reconstruction, it provides an empirical explanation of why it differs. But the rational aspect of scientific growth is fully accounted for by one's logic of scientific discovery."

While the view that scientific knowledge grows along the interplay of progressive¹¹⁹ and degenerating research programmes may be criticized in the natural sciences (e.g. Hacking 1981, 139), the view still sounds much more feasible in the sciences of the "artificial". In this multidimensional, complex and rapidly changing world it sounds much more feasible to evaluate the contribution, vitality and validity of a single research programme (as compared to other research programmes) hosting several theories, than to evaluate a single dominant, incommensurable paradigm (as to whether it should be overthrown in a revolution) or single theories (as to whether they could be falsified and overthrown). However, to have a research programme, it should be organized first.

Metatheory: The "Hard Core" of a Research Programme

Lakatosian research programmes have a metaphysical "hard core", an interpretative and normative element guiding the research act. Apart from this general structure, disparate metatheories are used as guiding principles of the research work in many fields (Wagner & Berger 1986, 179). The role of a metatheory is guiding and interpretative (Wiley 1988, 254): "A metalevel is an intellectual perch from which you can examine lower level meanings, seeing them in ways that cannot be seen from within the first order level". Lakatos (1970, 129-130) emphasized the interpretative role of the "hard core" of the research programme, which is close to the prescriptive role of metatheories (Overton & Ennis 2006, 145): "A metatheory is prescriptive in the sense that it defines what is meaningful and what is meaningless, what is acceptable and unacceptable, what is central and what is peripheral to inquiry". Metatheories should be parsimonious and multidimensional (Lehman 1988, 809), which makes them especially useful in inquiries concerning complex phenomena. Even one may not test the metaphysical statements of the "hard core" directly against evidence (Koertge 1979, 56), they may provide speculative, untestable world pictures that may direct attention and search for explanations.

Metatheories are demanded to produce better theories (Turner 1990, 38): "Metatheoretical analysis should be used to generate theories that are more parsimonious, abstract, and useful in explaining how the social universe operates." Being better aware of ones orientations and paradigm prisons will increase "theoretical self-consciousness" (Ritzer 1988, 195) and may improve the quality of theories. Metatheories are also used as classification systems by employing extant theories as their data and by mining their infrastructure, relationships among theories

¹¹⁹ Based on the work of Lakatos, Backhouse (1991, 412) has crafted criteria for testing whether a research programme is progressive (rather than degenerative): 1) find examples of novel facts (predictions before the event, facts previously not explained, new interpretations of old facts, or facts that played no role in competing research programmes), 2) show that these novel facts follow from the "hard core" and heuristics of the programme, 3) show that these were corroborated.

around particular topics and themes (Taylor et al. 2006, 311-312; Turner 2003, 8-9). In this way, they may bridge and organize existing theories within a science or some interdisciplinary research programme. "*Scientific metatheories transcend (i.e., 'meta') theories and methods in the sense that they define the context in which theoretical and methodological concepts are constructed*" (Overton 2007, 154).

Ritzer (1990, 4-6) makes a distinction between three varieties or ideal types of metatheories based on their end products and objectives. Firstly, metatheorizing may be a means of attaining a deeper understanding of theory. Secondly, metatheorizing may be a prelude to theory development aimed at producing a new theory by studying an extant theory. Thirdly, metatheorizing may be a source of perspectives that overarches a specific field of science. The end products would be, respectively, improved theories, new theories, or more comprehensive understandings of the field. All these can be seen as representations of the *diffusion and abstraction strategies* to accumulate understandings of the reality as defined in the beginning of this study. Following this line of thought, *metatheories are tools for crafting or revising the operating systems of the reality.*

As reality becomes more complex, the need for a metatheoretical approach will increase. The multidimensional phenomena of the social world are an ideal part of reality to be explored, operated and organized with a metatheoretical approach. Abrams and Hogg (2004, 100) discuss its potential role regarding the field of social psychology:

"Real life is not partitioned into discrete social processes. Conformity, attraction, aggression, conflict, and so forth co-occur and are intertwined. Social psychological research and theory, on the other hand, tend to examine each phenomenon in isolation. This encourages the idea that we need a different theory for each phenomenon. Unfortunately, this may put us in the position of being unable to determine whether we are looking at a vital body part or the psychological equivalent of the appendix! A strong metatheory helps to put the body parts together in a meaningful structure and then to theorize the links between those parts. In addition, identifying the metatheory behind a particular theory helps reveal potentially interesting and useful links to other theories ... It encourages the integration of concepts across contexts ... Researchers have a vested interest in their own theories. One consequence is a tendency for social psychology to produce a plethora of theories that overlap. We do not think this trend is likely to change, but it highlights the importance of linkage to metatheory."

Theories are operating systems of the reality. Building a metatheory implies wrestling on the *universal – particular dimension*. What to place in the metatheoretical "hard core" of a research programme and what to leave outside it? Even though some may consider it trivial to think whether universals exist (Chihara 1968, 45), such still should be considered at some level to be able to build on something, to have scientific progress and not be driven by some bizarre publishing interest and imperative. In some topics, the universals may be minimal, leaving such a theory powerless against a broader field of reality. In other topics, the reality may become generated from few well-known universals carrying significant explanatory power against the phenomena. There are also paradigm-rooted differences in the approach, like psychology looking more for universals and anthropology building more on particulars (Harwood 2006, 123), or systems thinking aiming to reveal the "*general in the particular*" (Emery 1969, 7). *The metatheoretical "hard*

core" should provide a somewhat enduring world picture to guide how reality should be besieged. It should prescribe how understandings are generated by the positive heuristics of the auxiliary theories and hypothesis, by their novel facts and predictions (Glass & Johnson 1988, 320-321). The level of abstraction may vary in this effort, according to the nature of the research programme, as indicated in the discussions and examples above.

4.2 Previous Attempts to Capture the "Hard Core"

The Sciences of the Artificial and the Challenge of Idiosyncrasy

Before proceeding with the consolidation of the ingredients of our own analytical structure into a metatheory, it is worth reviewing some earlier attempts in the social sciences. Confessing that "facts" of the social world are heterogeneous (Minniti & Lévesque 2008, 604), multidimensional and in many occasions idiosyncratic, places severe challenges for any universal wisdom to be captured by a metatheory.¹²⁰ The problem of summarizing findings from idiosyncratic issues is the same as summing up a poem (Sandelowski et al. 1997, 366). Despite this challenge, there have been several rather diversified attempts to define the "hard core" in social sciences.

For example, the struggle to create a *metatheory for psychology* has been vivid, even keen (Bjorklund 1997, 146; Buss 1995, 1; Buss 2008, 423; Cosmides et al. 1992, 7; Ellis & Ketelaar 2000, 56; Henriques 2003, 178; Kenrick et al. 2002, 355; Ketelaar & Ellis 2000, 18; La Cerra & Kurzban 1995, 64; Lloyd & Feldman 2002, 155; Newell 1990, 503; Shapiro 2005, 953, 960; Stenberg & Grigorenko 2001, 1075). The effort has been driven by an observed lack of a unified framework of basic understandings, inhibiting coherent accumulation of scientific knowledge (Henriques 2003, 176). Regarding the proposals, Goetz and Shackelford (2006, 580) have speculated that, in time, evolutionary psychology¹²¹ will emerge as the metatheory for psychology: "...without an evolutionary perspective, psychology becomes a disparate set of fields. Evolutionary explanations pervade all areas in psychology and provide a unifying metatheoretical framework within which all of the psychology can be organized." The foundations and benefits of this kind of a metatheory do raise some doubts, also (Buller 2005, 282; Hendrick 1995, 49; Miller 2000, 44). Conventions also matter,

¹²⁰ "... most of what we know with the name of philosophy of the social sciences is to explain away the weakness of social theories. When evaluated as research programmes, even the most respectable theories turn out to be degenerating! ... it is not as simple as saying that if 'All swans are white' is falsifiable by one black swan, it is scientific. It is not as easy as that." (Lakatos 1973b, 106).

¹²¹ In biology, evolutionary theory has by far been the metatheory (Popper 1992, 195): "Darwinism is not a testable scientific theory, but a metaphysical research programme - a possible framework for testable scientific theories." The statement of Dobzhansky (1973) is widespread: "Nothing in biology makes sense except in the light of evolution".

since several theorizings in the social sciences are of metatheoretical character without explicitly specifying it.¹²²

Many grand social theories seem to have an evolutionary idea or flavour. Nightingale (2000, 22) has sketched four “essential elements” of a Lakatosian research programme in *social sciences* based on the evolutionary view:

- “ (1) *Time passes, forward, never backward.*
- (2) *Social organisms have a substantial fixed body of practises and structures that condition their behavior.*
- (3) *Organisms differ in their possession of such characteristics.*
- (4) *The environment within which these exist favors some over others, leading to increasing shares of system resources by some at the expense of others, as time passes.”*

These are good candidates for the “hard core” of any metatheory in social sciences and economics,¹²³ providing a mesh for considering heterogeneity, real time (history) and mechanisms of change also with a populationist’s view.

Coming closer to the small firm world, organizations have been a target of several metatheorizing attempts. Martin (2002, 94-95) has elaborated a *metatheory of organizational culture*, comprised by three perspectives: integration, differentiation and fragmentation. These complementary views take different positions along three dimensions: relation among cultural manifestations, orientation to consensus, and treatment of ambiguity (ibid., 94). “*The three perspectives each conceive of a culture in radically different terms: as a homogeneous unity; as a collection of subcultures; or as a gathering of transient, issue-specific concerns, constantly in flux*” (ibid., 151). There is no such thing as an “integrated culture” or a “differentiated culture” or a “fragmented culture”, but a culture may become studied from such perspectives; the view remains incomplete, however, as long as the other perspectives are ignored (ibid., 156). “*All three perspectives are relevant at any point of time*” (ibid., 157). Relatedly, Chao and Moon (2005, 1129) have sketched a “cultural mosaic” to be used as a *metatheory for cultural complexity in organizational behaviour*. The mosaic is a composite of “tiles” made up by the demographic, geographic

¹²² For example, structuration theory (Giddens 1984) may be considered as a sociological metatheory. In neo-classical economics, the basic assumptions of utility/profit maximization and perfect knowledge may be considered as metatheoretical, even though Glass and Johnson (1988, 316-317) have proposed individualism, rationality, private property rights and market economy to be the “hard core” of the orthodox economics research programme. Latsis (1972, 209), in turn, included profit maximization, perfect knowledge, independence of decisions and perfect market in the “hard core” of the neoclassical programme featuring situational determinism.

¹²³ The evolutionary epistemology (Plotkin 1994, 248), which derives from comprehending living systems, has been applied also to the evolution of scientific knowledge. Popper (1979, 261), for example, considered growth of scientific knowledge as a Darwinian process: “*our knowledge consists, at every moment, of those hypotheses which have shown their (comparative) fitness by surviving so far in their struggle for existence; a competitive struggle which eliminates those hypotheses which are unfit ... The theory of knowledge which I wish to propose is largely Darwinian theory of the growth of knowledge ... we try to solve our problems, and to obtain, by a process of elimination, something approaching adequacy in our tentative solutions*”.

and associative features, which may be featured by the chaos and complexity processes at the individual level and by the network processes at the group level (ibid., 1138). “*Every individual has a cultural mosaic*”, a “*network of cultural identities*” as an antecedent of the behaviour or as a source of expectations for the subsequent behaviour (ibid., 1129).

Tsoukas (1994, 296), in turn, has attempted to create a *metatheory of management* by bringing together the perspectives of roles, tasks, functions and causal powers to clarify their relationships and to specify their scope of application. “*The various perspectives on management have been logically related to each other, thus, defining their individual scope of reference*” (ibid., 299). This approach, however, has been criticized for its inconsistency, since the causal powers in management have an ambiguous role also in production of the knowledge, and not just in using it to gain control (Willmott 1996, 323).

Adler and Borys (1993) place *organizational research* on the materialism—idealism continuum. The material forces behind organizational changes include technology and economics, whereas the ideational forces include politics and symbols (ibid., 657). At societal level these forces are institutionalized to some extent in the various systems (e.g. “the economy”; ibid., 657). There is an ongoing contest for explanatory power between the two views in capturing the simultaneous presence of the forces they advocate in many phenomena (ibid., 658, 662). Four strategies for this are proposed (ibid., 662-667): 1) *specialization* in one force and simply ignoring the others (like selection or adaptation), 2) *reductionism* by simplifying and redefining the phenomena to grant the universal causal primacy for one force (like economics), 3) *eclecticism* by just presenting the rich complexity of the phenomena without prioritization or generalization of the relationships, and 4) a *metatheory*. The authors illustrate the need for metatheory in this field (ibid., 660):

“A ‘unified theory’ of organizational structure may not be desirable or even feasible. Yet each strand competes with the others for explanatory power. We lack a framework for adjudicating their competing claims.”

According to this view, a metatheory may relax both the reductionistic forced oversimplification and the eclectic disorder or agnosticism: there may be simultaneously several causal forces that apply in different conditions (environments, levels etc.) and the metatheory should provide a systematic (rather than an ad hoc) account of the variation in their causal efficacy (Adler & Borys 1993, 666). Adler and Borys propose specification of “switching rules” or “metacontingencies” for identifying the conditions under which certain theories are more fruitful or applicable than other theories (ibid., 666-667). In their thinking, *several tactics may be used to construct these switching rules* in order to arrive at idealist or materialist metatheories (ibid., 667). Firstly, they may apply a *different scope of the phenomena*, distinguishing between various time-horizons of analysis (short; long) or domains of analysis (capabilities and systems; structure; strategy and culture; ibid., 667-671). Secondly, they may apply *different forms of the causality*, e.g. determinacy or dominance (ibid., 671-673). This reasoning comes close to logic of Lakatosian research programmes, organizing various “observational” theories and hypotheses around the metatheoretical “hard core” in order to organize them

and facilitate their use. But it remains questionable whether the main battles in this world take place between mind and matter.

Discussion of the resource-based view (RBV) of the firm is a good illustration of the needs and possibilities for a metatheoretical resolution to manage idiosyncratic wisdom. The theory posits that valuable, rare, inimitable and non-substitutable (“VRIN”) resources may provide a firm with a long-standing (sustained) competitive advantage (Barney 1991, 112). Concomitantly, one is encouraged to look after these “key” resources “*inside organizations*” (Rouse & Daellenbach 1999, 492) and how they become identified, created and leveraged by them (Collis & Montgomery 1995, 124). As these kinds of uniquely possessed resources cannot logically reside in other firms, it may be claimed that the RBV theory can not become subjected to falsification by studying these specific “key” resources in these other firms and contexts (e.g. Gibbert 2006, 124-125; Powell 2001, 875-876). The problem is that a theory based on idiosyncratic uniqueness cannot be generalized *at this level*. Additionally, positive causes do not necessarily lead to positive effects (“superior performance”), but may be inflated by non-observed “competitive disadvantages” beyond the scope or focus of the inquiry (Arend 2003, 280).

But if the RBV is looked at from a higher level, it just states that firms possessing these kinds of resources – whatever may they be – may defend their competitive advantage for longer periods of time than firms that do not possess these kinds of resources. *Then, the researcher is not looking what these “key” resources are, but whether they exist to some extent, in order to say something about the role they might play.* A theory based on idiosyncratic uniqueness can become generalized regarding the research findings, not regarding the contextual attributes of these findings (Levitas & Ndofo 2006, 136-137).

An additional problem with the RBV is the complexity of any true competitive advantage, which in many cases cannot become captured by few resources or capabilities (Black & Boal 1994, 145; Levitas & Chi 2002, 961), if at all (Levitas & Ndofo 2006, 139).¹²⁴ Furthermore, when the resources upon which the competitive advantage is based on will change over time, the focus will change from protecting the resources to creating them, as featured by the dynamic capabilities thinking (Teece et al. 1997, 516). Winter (2003, 994-995) sums up the state of the art:

“Probably some of the mystery and confusion surrounding the concept of dynamic capability arises from linking the concept too tightly to notions of generalized effectiveness ... clarity is served by breaking this linkage. There is no way to hedge against every contingency. There is no general rule for riches ... strategic analysis itself remains a matter of understanding how the idiosyncratic attributes of the individual firm affect its prospects in a particular competitive context.”

¹²⁴ Different views on strategy – targeted at competitive advantage – focus on different subjects. For example, the focus may be placed on routines (behavioural theory of the firm), governance (transaction cost theory), property rights (property rights theory), incentives (agency theory), or VRIN resources (resource-based theory; cf. Mahoney 2005, 223).

The entrepreneurial projects with their multiple contingencies set an even more complex scene than the standard RBV. To have (or not) a competitive advantage is one thing (and may be generalized as a research finding) – contents of this competitive advantage in terms of resources, capabilities and behaviours in each idiosyncratic case is another thing. Levitas & Ndofor (2006, 141) conclude: “Indeed, it may be that the RBV is more of metatheory whose application is quite wide but that is made up of subordinate theories whose applications are more context specific”. The heterogeneity assumption is an *analytic proposition*¹²⁵ (Powell 2001, 882) – essentially a metaphysical “hard core” of the RBV. This resembles the logic of Lakatosian research programmes.

The “Hard Core” and the Small Firm World

As evident from the examples above, metatheories of the social world have included in their “hard core” some “perspectives” considered necessary for guiding more observational and contextual research. *Without acknowledging several perspectives, the understanding would be incomplete.* What could constitute such a “hard core” in studying the small firm world that would be capable for guiding the “logic of discovery”? How does one account for the heterogeneity immanent in this world, while simultaneously accumulating comprehensive understanding? What aspects should be considered general and what aspects should be thrown to the outskirts of the analytical structure? We have already elaborated some candidates for this organization, but what do others propose?

Besides the amount of *explorative empirical work* and studies on *entrepreneurship as firm creation* (cf. Chapter 3.3), most of the efforts to provide some holistic understanding of the dynamics of the small firm world have featured aspects of *life cycle* (birth, growth, death) or problematic *functions* (especially finance and life cycle based management) of small firms, or *typologized their size and strategy* (e.g. Bridge et al. 2003; Burns 2001; Bygrave & Zacharakis 2008; Deakins & Freel 2006; Hodgetts & Kuratko 2001; Parker 2006; Roberts et al. 2007; Shepherd & Wiklund 2005; Storey 2004; Timmons & Spinelli 2007). The “hard core” proposed

¹²⁵ Kant (2003, 1-2) distinguished between *à priori* and *à posteriori* judgments. Kant considers *à priori* judgments to be based on universal (logical) reason alone, whereas *à posteriori* judgments are based on limited and specific (empirical and factual) experience. Furthermore, *analytic* judgments contain only information that is wholly predicated in their subjects “*through identity*”, whereas *synthetic* judgments contain information disconnected between the subject and the predicate, their relation to be shown to exist by some external justification (ibid., 7). *Analytic à priori* judgments are agreed as logical truths and definitional matters, whereas *synthetic à posteriori* judgments are to be learned and justified by experience. In his view, the transcendental *synthetic a priori* judgments would be metaphysical in character, since they may expand our *a priori* knowledge (ibid., 11). “*I apply the term transcendental to all knowledge which is not so much occupied with objects as with the mode of our cognition of these objects, so far as this mode of cognition is possible à priori. A system of such conceptions would be called Transcendental Philosophy*” (ibid., 15). The “synthetical *à priori* judgements” of Kant very much resemble the metaphysical “hard core” of the research programme.

by these studies and frameworks lies more or less in the *entrepreneurial orientation of the small firm*: how much of this is present, how it relates to the life cycle, what performance implications it has, how such is achieved and leveraged through business practises etc. The recipe provided is roughly “make a good business plan and be creative”. The mythical *entrepreneur* capable for this operates in the “hard core” of the small firm world.

Torrés (2003, 26-27), in reviewing small firm research in the management field, remarked that *small firm specificity* has been the “hard core”, but this specificity has been a somewhat flexible and ambiguous typological frame, essentially just placing a size boundary around the *object of investigation*:

“If we observe how standard research in the field of SMEs [small- and medium-sized enterprises] function, we can observe that they are rarely the central subject of the research. They are simply the field of application or analysis. What are studied are subjects such as alliances in SMEs, recruitment in SMEs, training practises in SMEs, innovation in SMEs, the use of strategy in SMEs and so on – but never SMEs in their own right. The choice of the SME-field, however, is always legitimised by reference to the specificity paradigm.

... the diversity that exists in the types of SMEs never goes beyond the specificity framework ... The specificity theory has never been brought into question, it has simply been modified. Diversity means only changes of a degree within the universal framework of specificity, which becomes the hard core of a research programme on the basis of which all research in the field of SMEs is founded.”

Julien (1993, 159-162), while discussing this specificity of small businesses as a research subject, mentions “interstices” not accessible or attractive to large firms (cf. Penrose 1995), networking as a source of economies of scale without meeting all the diseconomies of scale (e.g. administrative bureaucracy), and flexibility as possible explanations for persistence and vitality of small firms. As do many other scholars, Julien also concludes with an entrepreneurial voice (ibid., 162): “The key justification for the existence of SMEs therefore lies in the behaviour of entrepreneurs and their propensity to innovate, and in the concept of risk aversion”. Consequently, entrepreneurship would be the “hard core” of the small firm world.

Within the strand of more *holistic* and *dynamic* models and inquiries of small firm adaptation and performance – complying with the relational view of the elements and contingencies – the contributions of Carter (1990), Jones (2004), Schindehutte & Morris (2001) and Vesalainen (1995) have been selected for review to be considered for their proposals for the “hard core”. Carter (1990, 308) studied how small physicians’ firms (solo practices) cope with threats arising from their environment, regulatory and competitive uncertainty in particular. She typologized the adaptation responses as intraorganizational (competitive) or interorganizational (collective) and allowed them to take place at two levels, managerial (e.g. using consultants, joint venturing) or technical (e.g. changing product mix, inter-firm co-operation in production; ibid., 311). The adaption choices were observed to differ between the sources of uncertainty and to follow specific sequences (ibid., 325, 327). The study, however, dealt only with the “front arena” of performance, where the “fit” between the firm and the environment is sought in order to improve prospects of survival and success. In this arena, a cross-sectional observation may confirm that one strategic, functional and/

or managerial process of adaptation may be more beneficial than another one. Liberally reconstructed, the results would suggest that the “hard core” of the research programme for small firm dynamics could be comprised of a statement like: *there will have to be a “fit” between the configuration of the firm and performance-relevant contingencies of the environment*. The “positive heuristics” of the “fit” would tell that this can be found in a four-cell grid (the typology of adaptive responses) and that this has performance implications in terms of survival and success.

Jones (2004, 362) takes a different view, discussing the adaptation of small place-based firms operating in Web-impacted environments, threatened and afforded by the effects of this technological regime. He posits that learning, featuring the potential and realized absorptive capacity (cf. Cohen & Levinthal 1990, 128; Zahra & George 2002, 190), is the cornerstone of success and survival of small firms in this environment (Jones 2004, 366). The learning orientation of a small firm, which may be placed on the continuum between indifference and curiosity, contributes to its “*evolutionary potential*” (ibid., 368). This evolutionary potential is reflected in the capability to transform goals, boundaries and activities of the firm through internal selection, featuring “Lamarckian evolution” (ibid., 366). The possessed “Lamarckian” evolutionary potential may “push” the impact of the “neo-Darwinian” selection forces¹²⁶ to a less dominant role, even though

¹²⁶ In the “Darwinian” evolution the acquired characteristics are not heritable, in the “Lamarckian” evolution they are (though the original idea of Lamarck was erroneous regarding biological evolution). Socio-economic evolution is often regarded as “Lamarckian”. For example Nelson and Winter (1982, 11) consider economic change and the evolution of economic systems and organizations to be “Lamarckian”: “... our theory is unabashedly Lamarckian: it contemplates both the ‘inheritance’ of acquired characteristics and the timely appearance of variation under the stimulus of adversity”. According to this view, the habits of people, the routines of firms, and the memes, rules, conventions and institutions of the socio-economic and cultural systems, are counterparts of genes in biological evolution. They provide storages for the knowledge and behavioural codes and some durability for selective forces to operate. However, they are less durable and subject to more flexible “heritability” than genes in biology, allowing “Lamarckian” rather than “Darwinian” evolution (Dosi et al. 2005, 319; Metcalfe 2005, 410). Hodgson (1999, 165) illustrates the difference: “... while routines are relatively sturdy in socio-economic terms they are not nearly as durable as the gene in biology. In addition, when routines change their new characteristics can be imitated and directly inherited by imitators or subsidiary firms. For this reason, as several evolutionary theorists have pointed out, in the socio-economic sphere the inheritance of acquired characteristics is possible and thereby socio-economic evolution has apparent ‘Lamarckian’ characteristics. It could also be classed as Lamarckian because – contrary to gene-programmed behaviour of Darwinism – there is a place for intentionality and novelty in human behaviour”. In the strict “Darwinian” evolution firms are considered to be born with specific traits they are not able to change during their lifetime due to inertia (e.g. Carroll & Hannan 2000, 6; also concerning small firms, Hannan & Freeman 1977, 960), whereas in the “Lamarckian” evolution firms may learn and imitate traits during their lifetime (e.g. Burgelman 1991, 255; Singh & Lumsden 1990, 191) and traits may spread within living populations.

As evident, the problems arising from a very strict application of biological concepts to the social sciences are apparent. Biological evolution is basically just *one example* of the evolutionary processes guided by the generic processes of variation (or mutation), selection and inheritance (or replication or retention) – evolution of firms or other socio-economic entities is another example. In all evolutionary processes the existence of variety – novelty and diversity for the selection to operate and feed replication – is the ultimate condition for development (Nowak 2006, 9). *But, in the social (artificial) world the evolution is not purely “natural” since the humans have agency – though obviously partly blind one* (Demers 2007, 223).

these selection forces ultimately evaluate the “fit” of the firm with its environment (ibid., 366-367). Habitual indifference (retention of existing routines; S^2 in Figure 30) or habitual curiosity (adding the information base unselectively as a source of variation; S^1 in Figure 30) both imply potentially misplaced behaviours in relation to the changing environment, if the “internal selection” will not set up an appropriate balance between the evolutionary processes of variation, selection and retention (S^3 in Figure 30; ibid., 368). Jones concludes his conceptual elaboration by stating that the evolutionary potential is at the heart of adaptation (ibid., 369): “... the evolutionary potential of small place-placed firms is a product of their abilities to sense and respond to environmental shocks through the acquisition and exploitation of specific external knowledge”. Again, liberally reconstructed, his proposal for the “hard core” of the research programme for small firm dynamics could be comprised by a statement like: *the willingness and ability to learn will define the evolutionary potential of the firm*. The “positive heuristics” of the “evolutionary potential” would tell that one may access this potential through the learning orientation of the firm, embedded in its (search) routines, and that this potential has implications on performance in terms of survival and success.

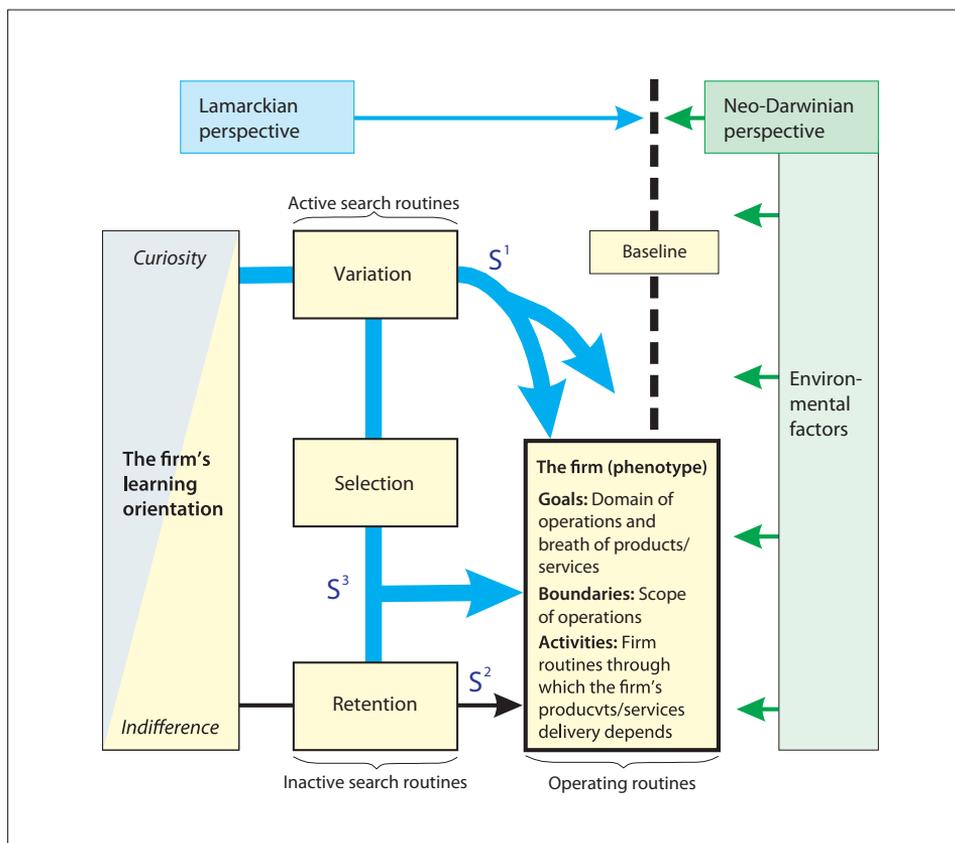


FIGURE 30 A Model of Evolutionary Potential (Jones 2004, 367)

Schindehutte and Morris (2001) elaborate the theme of strategic adaptation in small firms. They note that while adaptation is most important for small firms with limited resources and vulnerability to environmental forces, it is also somewhat easier for them, as compared to large firms, because of their inherent flexibility and informality (ibid., 87). They specify adaptation as “a multi-faceted construct that includes the internal capacity to adapt, the strategy or approach for adapting, and the actual amount of adaptation that occurs” (ibid., 88-89). The dimensions of adaptation, in this view, are the capability, the strategy, and the outcome (ibid., 88). These are defined by the characteristics of the entrepreneur, the organization and the environment, and their dynamic interaction will affect firm performance (ibid., 89-94). The process of strategic adaptation “refers to substantive modifications of core elements that constitute the business concept as the venture evolves, such as products or services offered, customer profile, marketing, distribution, personnel, financial and physical facility requirements” (ibid., 85). The research model is presented in Figure 31.

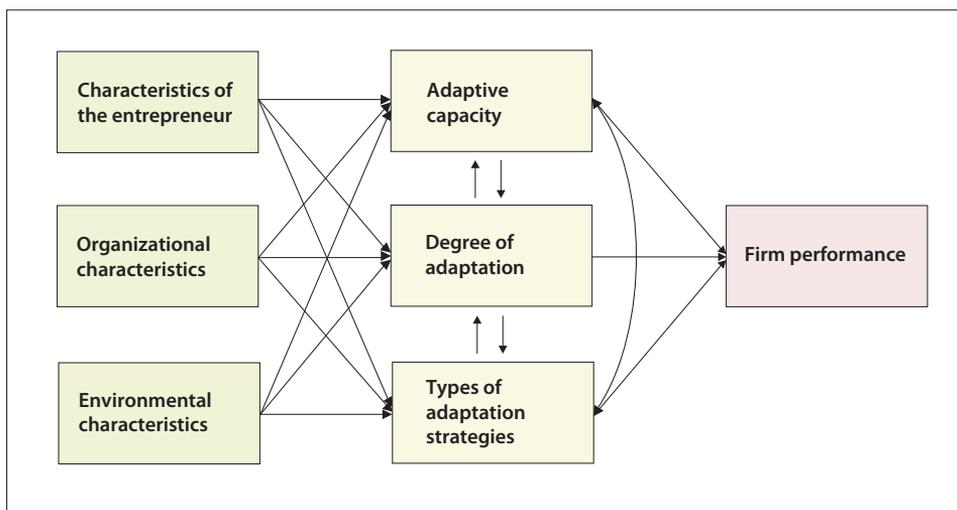


FIGURE 31 A Model of Strategic Adaptation in Small Firms (Morris & Schindehutte 2001, 89)

Following the generation and rigorous testing of several hypotheses with cross-sectional survey data, they concluded (ibid., 101-102):

“The key variables explaining adaptation are the entrepreneur and the external environment, with characteristics of the company playing less of a role ... A critical finding is that adaptation has performance implications in small firms ... the study serves to support our conceptualization of the three components of adaptation ... An overarching conclusion from the findings is that it may be far more important for the entrepreneur to have a concept that loosely fits the opportunity and then proactively adapt as things evolve, than to lock the firm into specific commitments that limit the venture’s future actions”.

The conclusions have parallels with the ideas of the instrumental role of the small firm (Chapter 3.3), the plastic control (O'Driscoll & Rizzo 1996, 38) and the corridor-principle (Ronstadt 1988, 34). Liberally reconstructed, their proposal for the "hard core" of the research programme for the dynamics of the small firm world could be consolidated by a statement like: *dynamic performance of a small firm is related to its degree of adaptation, which is brought about by the capacity to adapt and the strategy for adaptation, as afforded and constrained by the characteristics of the entrepreneur, the firm, and the environment.* The "positive heuristics" of the "degree of adaptation" would have specific implications for performance in terms of survival and success.

Finally, Vesalainen (1995) studied adaptive behaviours of small manufacturing firms with respect to organizational adaptation and environmental selection when confronted with environmental change. The *levels* of adaptive behaviours in striving for the "fit" with the environment (ibid., 69) were divided into core feature change, strategic adaptation (domain or niche change), competitive adaptation (within domain), and operative adaptation (ibid., 74, 92). The *forms* of adaptive behaviours included yielding, reacting, proacting, and creating, ranging from the environmentally determined to the active managerial behaviour, respectively (ibid., 62; see Figure 32 which demonstrates the analytical model of the study). An environmental change presupposing a *core feature change* as an adaptive response was considered least probable due to low managerial discretion and high organizational inertia within that domain, accompanied by a high probability for the "environmental selection"; the opposite was figured out to be an environmental change presupposing *operative change* as an adaptive response (ibid., 74-75). For the purpose of empirical analysis, the small firms were typologized according to their resources (or size: micro, small, medium-sized) and behavioural orientation (entrepreneurial vs. conservative) to capture the essential dimensions of their heterogeneity (ibid., 77, 115), and the analytical model was applied to this typology.

Vesalainen (1995) concluded his rare attempt to empirically grasp the aspects of adaptation *and* selection by emphasizing idiosyncratic contingency, entrepreneurship, and history; he encouraged using the selection—adaptation continuum rather than just either of the concepts:

"The adaptation dilemma is rather firm-specific ... solutions can be numerous and various, and the main point is that a firm has the capability to find and implement one (ibid. 135) ... The appearance of the environmental selection is highly situation-specific (ibid., 188).

... the entrepreneurial micro-firms are the most adaptable type of small firms and they are most probable type of firms to survive as well (ibid. 152) ... different types of small firms have each a type-specific way of coping with environmental changes. In other words, entrepreneurship manifests itself differently in each case (ibid., 191).

... The differences between the prevailing conditions of the firms are important and their importance appeared in two ways in this study. First, the appearance of the selection-out phenomenon is rather a firm-type specific than a general phenomenon. Second, the adaptive means are different between the various types (ibid., 172).

... The adaptation versus selection dilemma can be seen as a continuum ... Most cases in empirical reality can be placed somewhere between the above extremes (ibid., 188-189.)"

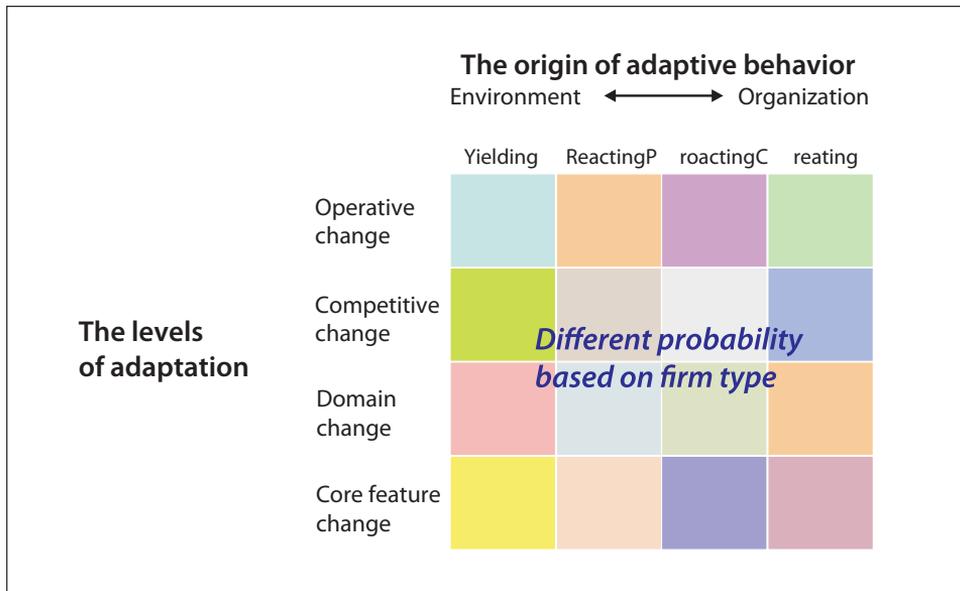


FIGURE 32 Dimensions of Adaptive Behaviours in Small Firms (Adapted from Vesalainen 1995, 75, 93)

Adaptability manifested itself differently at each of the levels (Vesalainen 1995, 189). Core feature change was rare due to the strong inertial forces and low environmental stress – neither adaptation nor selection operated at this level (ibid. 189-190). At the other extreme, environmental stress was highest and adaptation was easiest at the operative level, the strategic and competitive levels falling between these two extremes (ibid. 190-191). This distinction reminds us of the backstage-fronstage setting (Figure 15). *Entrepreneurship resides in the core of small firms and manifests itself in varying ways and magnitudes, resulting in implications for performance* (ibid., 191). Liberally reconstructed, his proposal for the “hard core” of the research programme for small firm dynamics could be comprised by a statement like: *different kinds of environmental changes asks for different forms and levels of adaptation, for which small firms have different abilities based on the resources and behaviours related to entrepreneurship*. The “positive heuristics” of this statement indicate that the relationship between the quality of the environmental change and small firm characteristics (resources, entrepreneurship) has implications for performance in terms of survival and success.

Of course, there are more examples of “holistic” models or analytical structures to set up a relational view of small firm adaptation and performance (e.g. Sadler-Smith et al. 2003; Sorge & Brussig 2003), and several ones for adaptation and performance, which are not specific to the small firm world (e.g. Hrebiniak & Joyce 1985). They propose additional candidates for the “hard core” of the small firm research programme. For example – liberally reconstructed – Smith et al. (2003, 59-62) would propose that *the global competence space for managing small firms is divided into entrepreneurial (culture, vision), non-entrepreneurial (performance) and generic (processes, stakeholders & environment, development) behaviours*. The “positive heuristics” of this typology would tell that each bundle (or type) of competences

in running a small firm has different performance implications depending on its contingent “fit” with the environment. After a similar reconstruction, Sorge and Brussig (2003, 1271-1277) propose that *small firms could have active, passive or open strategic orientation in their interactional relationship with the environment*.¹²⁷ The “positive heuristics” of this interactionist orientation (for a typologist: interactionist type), as related to the qualities of a specific kind of environment, would produce varying performance implications in terms of survival and success.

Proposals synthesized

Some general conclusions can be drawn from this limited, illustrative review. First of all, it seems that the proposals for the “hard core” of the small firm world research programme are tools of a typologist. The vast heterogeneity of the world seems to demand *typologist* patterning to have a grip on the essence of it as a

¹²⁷ Simon (1996, 9) factors an adaptive system into *goals, outer environment, and inner environment*. In many hierarchical designs of natural and artificial systems, the inner environment is somehow insulated from the variations of the outer environment (ibid., 8). Quasi-independence from the outer environment may be maintained by various forms of *passive insulation*, by *reactive negative feedback*, by *predictive adaptation*, or by some *combination* of these (ibid., 8). Each of these modes implicitly carries a different logic and different emphasis in the adaptive processes. Relatedly, Dunn (1971, 42) defined two sub-processes of adaptation. *Adaptive specialization* generates refinements in the subject, which are relevant with respect to its present environmental niche, whereas *adaptive generalization* generates “evolutionary novelties” that broaden the adaptive zone relevant to the subject.

These processes could reflect the continuum of short and long run as generally applied within economics. In the *short run*, efficiency within the current domain, resource stock and competence base is emphasized, whereas in the *long run* viability based on the search and construction of new opportunities, resources and competences is emphasized. In evolutionary thinking on economic and organizational change (e.g. Nelson & Winter 1982, 400-401) adaptive generalization has parallels with the search processes generating *variation and novelty*, whereas adaptive specialization may be related more closely to the *processes of selection and modification of the routines*. Furthermore, within the conceptualizations of organizational learning, the *mode of exploration* (of new possibilities) is closely related to the adaptive generalization, whereas the *mode of exploitation* (of old certainties) is closely related to the adaptive specialization (March 1991, 71). Within entrepreneurial thinking, the Schumpeterian view of creative destruction with a possibility for an active creation of new business opportunities “*from within*”, through the “*mechanism of change*” borne by an entrepreneur (Schumpeter 1934, 61, 63), has many parallels with adaptive generalization, whereas the Kirznerian view of business opportunities exploited only through differential *alertness* and access to information on their availability (Kirzner 1973, 67) has many parallels with adaptive specialization. Adaptive generalization has also strong links with the concept of *absorptive capacity* (Zahra & George 2002, 192).

As evident, each perspective or “science” seems to have an interest to elaborate its own concepts, often reflecting the general ideas of Simon (1996, 6): “*An artifact can be thought of as a meeting point – an ‘interface’ in today’s terms – between an ‘inner’ environment, the substance and organization of the artifact itself, and an ‘outer’ environment, the surroundings in which it operates. If the inner environment is appropriate to the outer environment, or vice versa, the artifact will serve its intended purpose.*” In our terms, the artifact operating as the interface is the entrepreneurial project, subjected to and facilitating several modes of adaptation in various occasions.

starting point.¹²⁸ Secondly, if the proposal for the “hard core” should be just one concept, it would be *entrepreneurship*. Thirdly, the proposed analytical structures seem to tell stories of various kinds of contingent “fits” between characteristics of the small firm and its environment. An ordinary person in everyday life and a scholar in the research business normally base their inquiries and actions on some “world hypothesis”¹²⁹ or “home perspective”; in small firm studies these seem to fall under the *structural contingency view* or *evolutionary epistemology*.

Fourthly, apart from the studies reviewed, many studies seem to have a tendency towards *observational biases*: bias towards some sort of a stable “type” or “equilibrium”, rather than focusing on “continuous” change of the subjects along the modification of the “structural inheritance”; many studies of change seem to have a bias toward growth rather than decline (cf. Whetten 1980, 577), or a bias toward success rather than failure (cf. Aldrich & Ruef 2006, 32; Levinthal & March 1993, 104; Ormerod 2005, 21; Sitkin 1992, 232). The population ecology school, studying births and deaths of firms rather than their adaptation, has noticed the survivor bias (e.g. Carroll & Hannan 2000, 6).

The fifth point is that studies tend to be very “scholarly” and “scientific”, clean and well polished. Even when discussing small businesses, the “real life” things such as marriage or divorce, fortune or incidence, sickness or just getting bored with welding (cf. Cope 2008, 15) are completely beyond the scope of the studies. Even though these are not positively “planned” business futures, their omission inflates conventional explanations. In reality, nothing “strategic” happens in the social world without aspirations of the human beings, whatsoever their origin and quality may be. In reality, entrepreneurs operating small firms as business vehicles

¹²⁸ Those in favour of a mechanistic view of the behaviours would be inclined to reduce the explanations to an Aristotelian “efficient cause”, whereas those in favour of a more contextualist stance would be inclined to accept *pattern* as an explanation of its own right (Overton & Ennis 2006, 155). Aristotle (1999, 318-319) distinguished between four causes (explanations, reasons): material cause (the thing is made of this), formal cause (this is the form or *eidōs*, “essence” or “species”, of the thing), efficient cause (this moves the thing, principle of movement), and final cause (the thing is directed towards this end or *telos*, or is part of this, “that for the sake of which”). In our setting, the services provided by the entrepreneurial project is the material cause; the entrepreneurial project is the formal cause; the possibility to exchange the heterogeneous aspirations for the resources through the entrepreneurial project is the efficient cause; and the struggle of aspirations to become fulfilled in this interaction is the final cause.

¹²⁹ Pepper (1942, 141-146) proposed four “world hypotheses”: *formism* (“realism”, “Platonic idealism”) and *mechanism* (“naturalism”, “materialism”, also “realism”) as “analytical theories” utilizing elements or factors; and *contextualism* (“pragmatism”) and *organicism* (“absolute or objective idealism”) as “synthetic theories” based on complexes or contexts. Also, formism and contextualism are *dispersive theories*, threatened by the inadequacy of precision, whereas mechanism and organicism are *integrative theories*, threatened by the inadequacy of scope (ibid., 142-143). The idea of Pepper presenting the “root-metaphor theory” was very much metaphysical, or metatheoretical (ibid., 85): “Our interest is not so much in the truth of a certain theory about world theories as in the cognitive value of the world theories themselves.” Any view in itself is partial, having specific advantages and inadequacies, which are worth of observing.

to introduce and manage their projects, have to cope with *all* the dimensions and the “total situation” of their reality,¹³⁰ whatever the way of perceiving and making sense of it and whatever the outcome (Barnard 1938, 235; featuring functions of the executive):

“The executive functions ... have no separate concrete existence. They are parts or aspects of a process of organization as a whole ... the essential aspect of the process is the sensing of the organization as a whole and the total situation relevant to it ... the terms pertinent to it are ‘feeling’, ‘judgment’, ‘sense’, ‘proportion’, ‘balance’, ‘appropriateness’. It is a matter for art rather than science, and is aesthetic rather than logical. For this reason it is recognised rather than described and it known by its effects rather than by analysis.”

The review of the metaphysics of the social and small firm world confirms that the elements of our preliminary analytical structure crafted in earlier chapters are “correct”. The uncovered omissions and partial views of the paradigm prisons to be avoided in the general framework have also provided valuable insights. It is possible to consolidate, with some confidence, the metatheory for small firm dynamics and entrepreneurship as the distinct motor behind it.

4.3 Metatheory of Small Firm Performance and Entrepreneurship

The aim of this study is to elaborate a metatheory of small firm performance and entrepreneurship, which manifests itself by using small firms as platforms for the entrepreneurial projects. The metatheory should include a metaphysical “hard core” of the research programme for the small firm world. The hard core should include a recipe for examining this world by making basic claims or metaphysical statements that have both *consolidating* and *guiding* effects on the effort.

Any metatheory is itself not more than an analytical device, an operating system of the reality, with which one may besiege specific parts of it to understand it better and to create specific devices for exploring it, for finding “theoretical” explanations. Metatheory is an analytical structure, not a scientific “truth”. Besieging the small firm world with this kind of an analytical operating system should provide access to its dynamics, to the richness of causal forces, to their contingent and varying effects in producing the kaleidoscopic outcomes in terms of performances along the neverending course of adaptation. One may besiege some frontiers, parts and actions of this world by the traditional tools deduced from institutionalized market exchanges, rational choices, and thoughts and actions conforming to the “existing”, but such prescriptions face frontier problems posed by the novelty generation processes which ultimately grant the small firm “species” an enduring status among the business vehicles. *Evolution has a*

¹³⁰ If the entrepreneurial agency was conflated with the entrepreneur as a person with some (often heroic) traits, this would be difficult, whereas analytical dualism distinguishing between the personal and entrepreneurial agency makes this possible.

huge potential to reward an entrepreneurial project of any kind for being different, but becoming different is a risk, since the reward is not known beforehand: it becomes known in the future. This is the essence of the small firm world and entrepreneurship – committing to an uncertain course of action to introduce situational novelty with a risk of failure of the project and the entrepreneurial agency. It is interplay between the entrepreneurial agency and the “structural inheritance”, affecting and revising each other within some specific surrounding. In this engagement, the entrepreneurial agency may be guided or even partly determined by the “structural inheritance”, but being fully prescribed by it represents (“theoretical”) extreme cases of institutionalized market exchanges, habitualized/routinized actions and rational decisions.

In the earlier chapters a number of metaconjectures and other elements of the analytical structure have been distilled and refined. They are candidates for the metaphysical “hard core” of the small firm world and entrepreneurship research programme. The following metaphysical basic statements¹³¹ are proposed:

(1) *The entrepreneurial agency facilitates commitment to a specific course of action to introduce and manage an entrepreneurial project while interacting with the personal, economic and institutional agencies, all having specific “structural inheritances” comprised of the aspirations, resources, and behavioural systems of generation, selection and coherence.*

(2) *The “structural inheritance” and incidental interaction may provide causal powers along focus gain and sequencing of thought and action in energizing aspirations for the commitment and management of the project; they may be placed on the continuums of changeability (determination – deliberation), subjectibility (internal – external) and temporality (past – future).*

(3) *The owner of the entrepreneurial project is an entrepreneur and the small firm has an instrumental role as one potential platform for the project, forming a nexus of exchange and transformation.*

¹³¹ The specific concepts used to illustrate the metaphysical core statements may be replaced by some other ones, since they are used just as tools to uncover the basic underlying logics, structures and structuring processes. As Popper (1982, 42-44) emphasised [discussing quantum theory in physics]: “What we are seeking, in science, are true theories – true statements, true descriptions of certain structural properties of the world we live in. These theories or systems of statements may have their instrumental use: yet what we are seeking in science is not so much the usefulness as truth: approximation to truth; explanatory power, and the power of solving problems; and thus, understanding ... Theories are also described quite wrongly as ‘conceptual systems’ or ‘conceptual frameworks’. It is true that we cannot construct theories without using words or, if the term is preferred, ‘concepts’ ... it is not the conceptual system but the theory that is of real importance for the pure scientist ... The conceptual system, on the other hand, is exchangeable and is one among several possible instruments that may be used for formulating the theory. It merely provides a language for the theory; perhaps a better and simpler language than another, perhaps not ... Thus we are ultimately interested in theories and in their truth, rather than in concepts and their meaning.”

(4) The entrepreneurial projects have the potential to introduce situational novelty (innovations) in time and/or space as new combinations of competitive resource use or as new sources of isolation in resource use (niche) by meeting aspirations not met by other projects (novelty criterion), and a potential for failure of the project and the entrepreneurial agency (risk criterion).

(5) All the entities involved have a "back stage" and a "front stage" allowing for visibility, opacity, fuzziness, accessibility and control of the contents within their boundaries.

(6) Performance of this adaptive system can be observed by the entrepreneur, the project, the firm, and the environment, and it is born through achieving (or not) "fits" between the constituencies to allow exchange of aspirations and resources, revising the "structural inheritance" of aspirations, resources and behavioural systems.

A stylized illustration of the metatheory is presented in Figure 33, indicating the main elements and relationships. As the "hard core" of the research programme for the small firm performance and entrepreneurship, its role may be featured from several points of view. What kinds of questions does it guide us to pose? What kinds of answers does it propose to be acceptable? What kinds of problems may it assist to be solved?

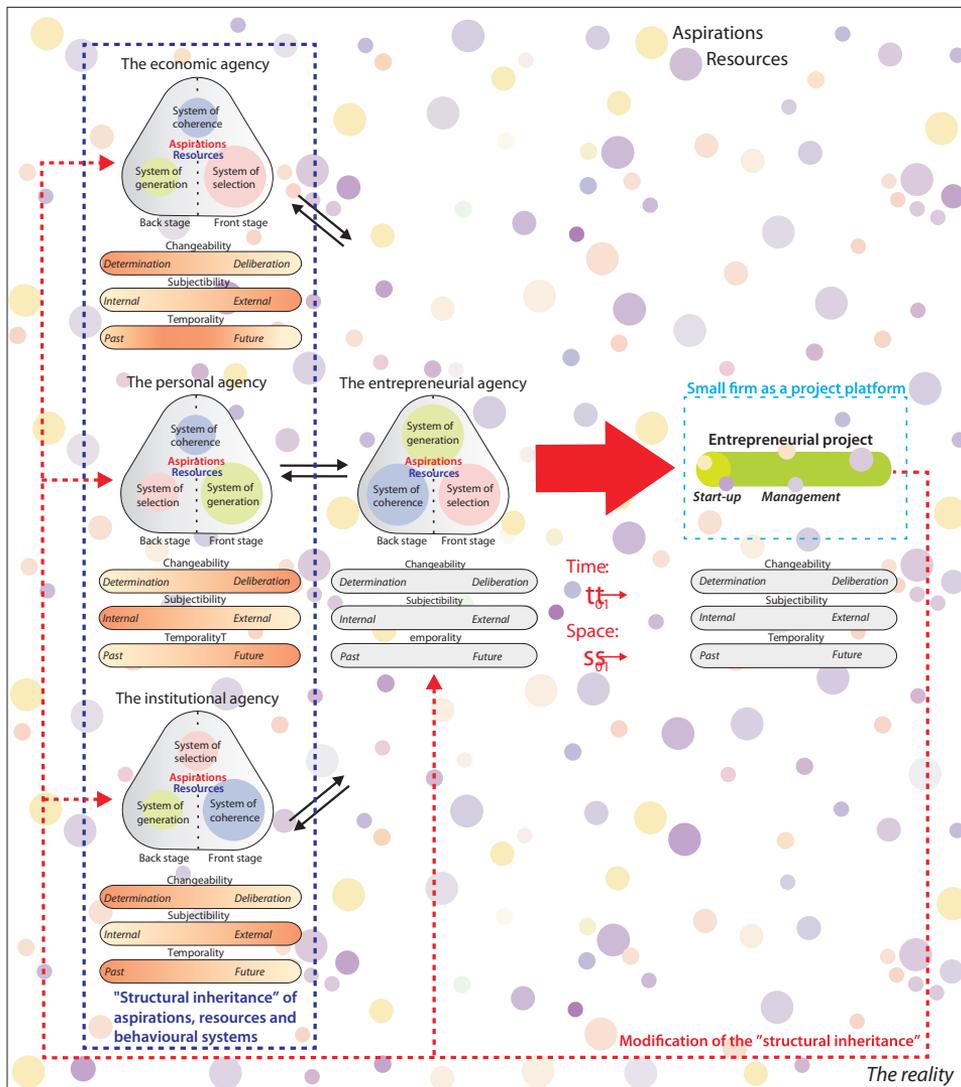


FIGURE 33 Metatheory of Small Firm Performance: A Stylized Illustration

The Questions

Considering the small firm world as characterized by the emergence, management and closure of entrepreneurial projects makes it look like a kaleidoscope. It is tempting to think what “universal truths” may be figured out from this. Perhaps one may speculate that there is no such thing as “the ideal entrepreneurial project”, only appropriate ones. Perhaps one may think that “universal truths” in this world can only be presented at the meta-level, as grey-boxed things framing the idiosyncratic and situational “solutions”.¹³² Taking the obvious *heterogeneity*

¹³² In fact, this was the idea of Lakatos (1970, 176) in his research programmes: “... in the ‘hard core’ we decide to ‘accept’ universal, in the ‘empirical basis’ singular, statements”.

of aspirations, resources and behavioural sub-systems (generation, selection, coherence) as the deepest ontological structure of this world, the “hard core” should guide us in building a “protective belt” around it and against this huge diversity, this “ocean of anomalies” of the reality. With what approach should theories actually observing and explaining various parts and aspects of this reality be constructed and utilized? We may propose three basic questions as an epistemological guiding line:

- How does *changeability* affect small firm entrepreneurial projects in a specific time and place?
- How does *subjectibility* affect small firm entrepreneurial projects in a specific time and place?
- How does *temporality* affect small firm entrepreneurial projects in a specific time and place?

Using these questions as the guiding devices for the inquiry and the elements of the metatheory as the analytical structure, it should be possible to work sensibly at the universal – particular borderline with contextual why, who, what, how, when and where questions.

The Answers

What kinds of answers may be regarded to provide genuinely new or better understandings of the issue, rather than to be considered as *ad hoc*,¹³³ non-relevant anomalies or non-useful conjectures? This is the most normative – and most critical – stage of the effort, defining what is regarded as a progression of understanding in this world and what is not, but allowing for methodological plurality in the production of that understanding.¹³⁴ For the programme to be progressive, the answers should provide excess content, part of which may become corroborated. This progression should be coherent, stemming from the basic logic prescribed by the “hard core”. Reorganizing the “ocean of empirical work” concerning the small firm world from this standpoint would be a major task and is not within the scope of this study. Some general remarks on what could be included in the “protective belt” and what could be disregarded can be proposed.

¹³³ Lakatos (1970, 175) figured out three types of *ad hoc*. *Adhoc*₁ are theories which do not have excess content over their predecessors or competitors and which are unable to predict any novel facts. *Adhoc*₂ are theories that predict novel facts but completely fail in the lack of corroboration of the excess content. *Adhoc*₃ are hypotheses that are not *adhoc*₁ or *adhoc*₂ but are still unsatisfactory. This is the case, for example, when “progress” is achieved by patching up an arbitrary series of disconnected theories; these kinds of auxiliary hypothesis could be called “merely ‘formal’, arbitrary’, ‘empirical’, ‘semi-empirical’, or even ‘*ad hoc*’”.

¹³⁴ Lakatos (1978, 140), while commenting on Popper’s “game of science”, posited: “The term ‘normative’ no longer means rules for arriving at solutions, but merely directions for the appraisal of solutions already there”. In the approach adopted here, alternative research programmes with their specific “hard cores” compete for better explanations of the reality.

The answers for the small firm world concerns should be considered as manifestations of the three key dimensions (changeability, subjectibility, temporality) on the various battlefields of performance and arenas of interaction. They capture the regulative and restructuring aspects in the relationships between the “inputs” and the “outputs”, where aspirations are exchanged for resources through entrepreneurial projects. *These key dimensions should capture the quality of each current reality in this world and how it changes further on; how various causal powers and incidental interactions afford and constrain, direct and sequence attention, thought and action.* For example, theories focusing on deterministic changeability, external subjectibility and past temporality (e.g. neo-classical economics, organization ecology) may be expected to provide corroborated answers only within those kinds of specific sub-worlds and contexts. More preferably, *the answers dealing with the small firm world should arise from studying this world along the three key dimensions rather than in their extreme edges.*

So, rather than crafting “economic explanation for the small firm world” or studying “empirical predictors of small firm growth”, one could explore “changeability of aspirations, resources and behavioural systems in the small firm exchanges” or study “subjectibility of aspirations, resources and behavioural systems related to small firm growth”. Attempts to penetrate the small firm world with one specific paradigm, school or science, presumably provide very biased¹³⁵ or very partial¹³⁶ answers, because they potentially lack the internal logic or the “hard core” specific just to this world. Ultimately, this is multidimensional since the entrepreneurial agency and project is faced by a “total situation”. Thus, *the answers – still always partial – which have a dialectic relationship, a link, with the “hard core” of the small firm world research programme are those that may result in a genuine and coherent understanding of the issue. The research tools used to probe this world should be able to place the phenomena along the three continuums of changeability, subjectibility and temporality to generate answers that are coherent and linked with the metatheory.*

The Problems

Many kinds of concerns at many levels may be dealt with through specifying and contextualizing the metatheory. The emphasis on research programmes in the social world often evolves among social concerns and desires: what kinds of aspirations would be exchanged for what kinds of resources in some specific context for the entrepreneurial projects. The “structural inheritance” of each context frames the general desires and concerns. Basically, any kind of a concern should be possible to deal with, but some concerns may be more interesting because of their fundamental importance or ambiguous character, or both. Remembering the

¹³⁵ For example, the “permanent” psychological traits which aim to explain a “situational” engagement with an entrepreneurial project potentially arising from an incidental attraction of attention, rather than from following a predestined mind or destiny.

¹³⁶ For example, the situationally deterministic behavioural rules of economics aiming to explain the engagement with an entrepreneurial project, which may arise from and survive along “sufficient” and fuzzy (rather than optimal and punctuated) multidimensional (rather than unidimensional) “fits”.

entrepreneurial project as the main unit of analysis is featured to have strategic, directional futures, risk and learning imperatives, the role these imperatives play in various contexts is an important and interesting question for the purposes of instruction and policy design. The metatheory may be focused with a “research lens” to provide guidance in the production of knowledge for any specific research needs. Apparently, there are many candidates for such. *Research lenses are tools for making the metatheory a more appropriate “operating system” of reality from a particular point of view.* These tools are discussed in the next chapter.

5 Research Lenses and the Metatheory

5.1 The Concept of the “Research Lens”

We are ready to take the next step in studying the small firm world as characterized by the projects of the entrepreneurial agency. A comprehensive understanding of this issue may be possessed only at the metatheoretical level, but there is an array of specific problems and concerns, interesting topics and policy relevant aspects to be investigated. Even though these may be less multidimensional than the small firm reality as a whole, they may still ask for multidisciplinary understanding of the problem at stake. The subject matter on the table waiting to be analyzed is genuinely multidimensional. But how should one organize an “observational” research effort dealing with specific research problems without losing this aspect? It may be useful to think about arranging objects in a photograph; English (2007) gives guidance for “creative lens use”:

“The common understanding is that big telephoto lenses are used to bring distant objects closer, and that wide-angle lenses are used to take in ‘wide’ vistas. Sure ... these lenses can be used for these purposes, but to think of these different lenses in only this way is to severely limit the creative possibilities available to you. The most powerful advantage that these different lenses give you is the ability to change the relationship between the subject and background and to control what stays or goes from your background. (Side note: Attention to, and the ability to control background elements is one of the key differences between accomplished photographers and beginners.)

... Wide-angle lenses require greater care when composing images since it is all too easy to include some unwanted or distracting element in the background. Telephotos on the other hand, allow the photographer to more easily control what remains in the background of his or her image.

... Changing the way you think of and use you[r] lenses, paying attention to your backgrounds, and how you want to render the relative size and spatial relationship between your foreground and background elements will help you to add real impact to your images.”

Taking a photo seems not to be that much different from making a study. Using lenses to balance the object and the background is similar to using a research design for arranging the topic and the context. A specific entrepreneurial project

may be examined (a photographer would say: shot) from various points of observation (entrepreneur, project, firm, environment), but also with some thematic or contextual concern in mind. To generate more accurate knowledge, research lenses may be used as engineering tools to focus the metatheory. They serve to resolve the Thorngates (1976, 406) postulate on commensurate complexity stating that theory of social behaviour cannot be simultaneously general, accurate and simple. This holds also for the model presented here, which is general and simple. *The accuracy preferred in each occasion is obtained by using various research lenses.*

Basically, the research lenses are needed for moving along the universal—particular dimension along some specific trail. While studying certain aspects of the small firm world inhabited by entrepreneurial projects, *on which “level” should we focus our inquiry and sharpen our lenses in order to draw a demarcation line between the universals and the particulars, between some essential causal powers and their outcomes, and variations outside their reach or relevances?* When should we use the lenses of a typologist and when should we use the lenses of a populationist? In this effort to focus, one should maintain a dialectic relationship with the “hard core” of the metatheory.

There is a choice of lenses which could be used in the effort to focus. First of all, we may use *paradigms* in parallel or sequentially as lenses (Lewis & Grimes 1999, 675). These would be very broad lenses that could focus on the functions, interpretation, power or regulation [related to entrepreneurial projects] (Burrell & Morgan 1979, 22); on “being” or on “becoming” [of the entrepreneurial projects] (Chia 1996, 33; Tsoukas & Chia 2002, 576), etc. Secondly, we may use the entrepreneur, the project, the firm, or the environment¹³⁷ as lenses, complying with our *points of observation* for performance. Thirdly, we may focus on personal, economic or institutional aspects of the entrepreneurial project to generate more accurate knowledge on the specific interaction with each of these *domains*. Fourthly, an extensive array of other themes has been proposed to be employed as research lenses in strategic, entrepreneurial or organizational studies, covering specific *qualities or processes*: rational (content), learning (process) and cognitive (process) lenses (Rajagopalan & Spreitzer 1997, 50); strategic design, political and cultural lenses (Ancona et al. 2005, M2:10-11); time lens (Ancona et al. 2001a, 645-646); and complexity lens (Anderson 1999, 227; Fuller & Moran 2001, 60; McKelvey 2004; 331; Stacey 1995, 490); among others. The strategy, directional futures, risk and learning imperatives characterizing entrepreneurial projects are good candidates as well.

It is evident that each research lens focuses on some part, dimension or quality of the small firm world. Their use may depend on the current social concerns or needs to accumulate scientific understanding of this world. Instead of choosing a very general or very specific lens as featured above, this problem could be solved by using the underlying dimensions as research lenses to produce systematically

¹³⁷ This lens could be also considered as a level of analysis lens. It may be used to employ a cross-level design to grasp the interaction between the levels of analysis to consider, for example, the substantive context (Johns 2001, 39).

more focused descriptions, explanations and predictions as a general prescription: *the changeability lens, the subjectibility lens and the temporality lens. Evidently, the cacophony of concepts and theories produced by the scientific enterprise may be traced and brought back to these dimensions. Similarly, they could be activated and attached to these dimensions up to a point they are relevant in the research effort, keeping with the solid ground provided by the metatheory.* As shown before, a vast number of concepts essentially feature these basic dimensions with some coloured icing and several concepts have close relatives in other paradigms, perspectives, schools of thought, views or sciences – many of which could be consolidated into this logical framework, or disregarded.

These three lenses of changeability, subjectibility and temporality may uncover and help to elaborate the distinctive qualities of entrepreneurial projects, which are related to simultaneously strategic, directional, risky, learning and futuristic character of them, intimate to the entrepreneurial agency. Each of the three lenses will focus the inquiry to a specific dimension of the emergence, survival and success of the entrepreneurial project in the small firm world. Within each lens, specific sets of “observational” theories and concepts may provide feasible tools for keeping the research work productive and prevent it from falling into absolute theoretical relativism (everything “affects” and anything goes) or rootless empiricism (nothing accumulates). The task is challenging, when the complex real life may not be isolated for repeated observation and experimentation under controlled circumstances, or organized into a long series of observations of the natural but essentially stationary circumstances with a limited “noise” (Solow 1985, 331). The lenses may be used separately, sequentially or in parallel. Remembering the multidimensional character of the issue at stake, it is very appropriate to think that the most efficient way of using is in parallel. For this reason, they are briefly featured separately and then discussed as a bundle.

5.2 Changeability Lens

Changeability of aspirations, resources and behavioural sub-systems within various domains may explain and predict the emergence, survival and success of entrepreneurial projects. What can be changed and what cannot – or thought such – is basically an issue of control, defining a demarcation line between deterministic and voluntaristic actions. This demarcation line may be very clear or very fuzzy, vary across contexts and among projects, and change over time and over the lifetime of the project.

The changeability lens may be focused on the two main “stages” of the process as follows (Figure 34):

- 1) How does “structural inheritance” (aspirations, resources, behavioural systems) residing within the personal, economic and social-institutional agencies affect the introduction, management and closure of an entrepreneurial project by the entrepreneurial agency in terms of changeability?
 - Transformation of the *aspirations* into an *intention* to engage with an entrepreneurial project through incidental interaction or dominance-based focus gain and sequence of attention, thought and action,
 - Transformation of the *intention* to engage with an entrepreneurial project into *action* by starting a project and engaging in a risky course of action,
 - *Achievement, maintenance and management of “fits”* between the constituencies of an entrepreneurial project allowing exchange of aspirations for resources.
- 2) How does the entrepreneurial project modify the “structural inheritance” (aspirations, resources, behavioural systems of the agencies) in terms of changeability?

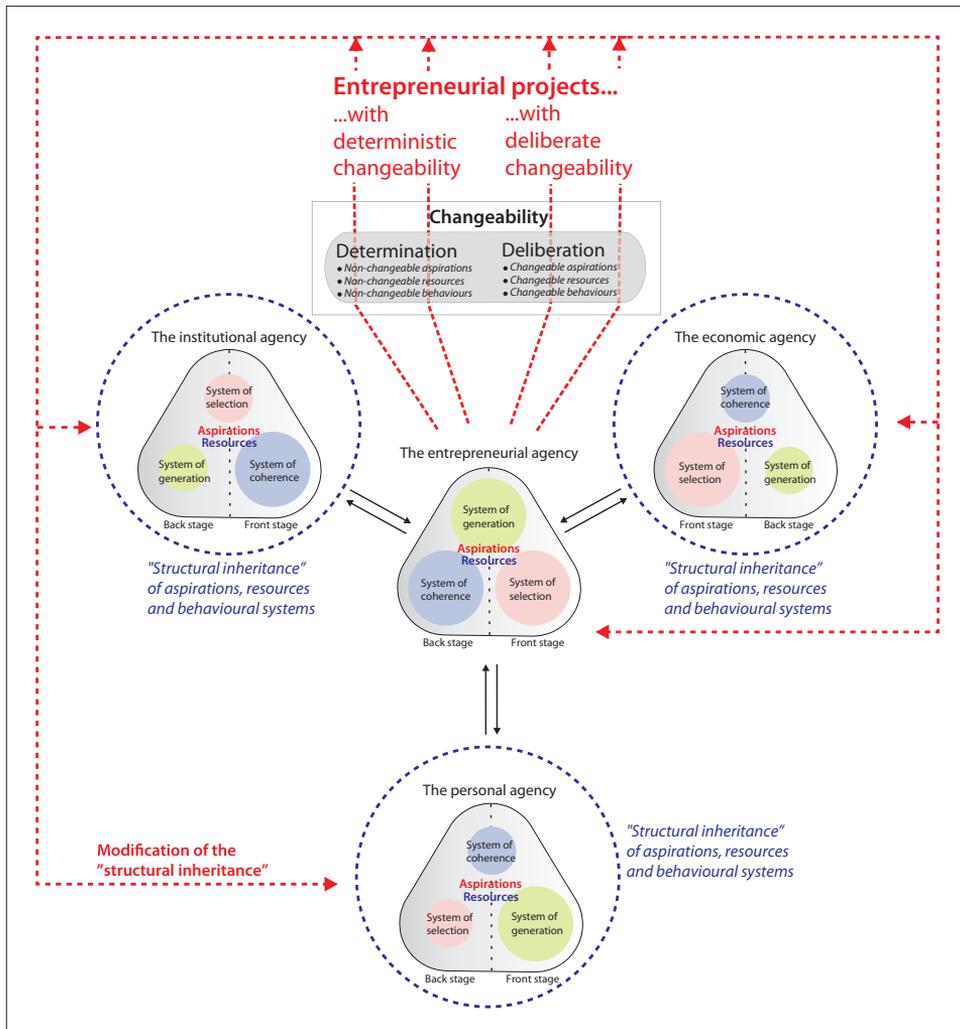


FIGURE 34 Studying Emergence, Survival and Success of the Entrepreneurial Projects with a Changeability Lens

5.3 Subjectibility Lens

Subjectibility of the aspirations, resources and behavioural sub-systems within various domains may explain and predict the emergence, survival and success of entrepreneurial projects. The demarcation line between the internal and the external may be a very clear or very fuzzy boundary, varying across contexts and among projects, and may change over time and during the lifetime of the project.

The subjectibility lens may be focused on the two main “stages” of the process as follows (Figure 35):

- 1) How does “structural inheritance” (aspirations, resources, behavioural systems) residing within the personal, economic and institutional agencies affect the introduction, management and closure of an entrepreneurial project by the entrepreneurial agency in terms of subjectibility?
 - Transformation of the *aspirations* into an *intention* to engage with an entrepreneurial project through incidental interaction or dominance-based focus gain and sequence of attention, thought and action,
 - Transformation of the *intention* to engage with an entrepreneurial project into *action* by starting a project and engaging in a risky course of action,
 - *Achievement, maintenance and management of “fits”* between the constituencies of an entrepreneurial project allowing exchange of aspirations for resources.
- 2) How does the entrepreneurial project modify the “structural inheritance” (aspirations, resources, behavioural systems of the agencies) in terms of subjectibility?

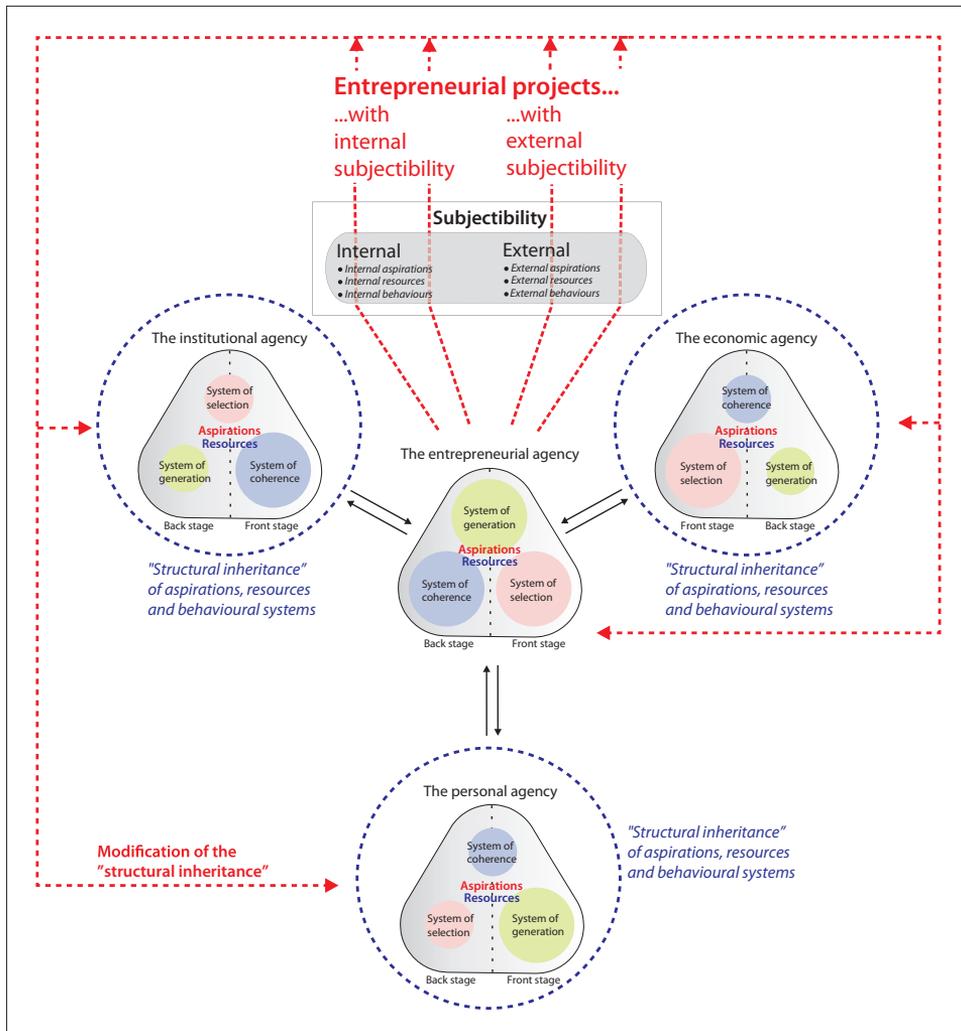


FIGURE 35 Studying Emergence, Survival and Success of Entrepreneurial Projects with a Subjectibility Lens

5.4 Temporality Lens

Temporality of the aspirations, resources and behavioural sub-systems within various domains may explain and predict the emergence, survival and success of entrepreneurial projects. The demarcation line between the voices of the past and the future may be either very clear or very fuzzy, and may vary across contexts and among projects, and may change over time and during the lifetime of the project.

The temporality lens may focus on the two main “stages” of the process as follows (Figure 36):

- 1) How does the “structural inheritance” (aspirations, resources, behavioural systems) residing within the personal, economic and institutional agencies affect the introduction, management and closure of an entrepreneurial project by the entrepreneurial agency in terms of temporality?
 - Transformation of the *aspirations* into an *intention* to engage with an entrepreneurial project through incidental interaction or dominance-based focus gain and sequence of attention, thought and action,
 - Transformation of the *intention* to engage with an entrepreneurial project into *action* by starting a project and engaging in a risky course of action,
 - *Achievement, maintenance and management of “fits”* between the constituencies of an entrepreneurial project allowing exchange of aspirations for resources.
- 2) How does the entrepreneurial project modify the “structural inheritance” (aspirations, resources, behavioural systems of the agencies) in terms of temporality?

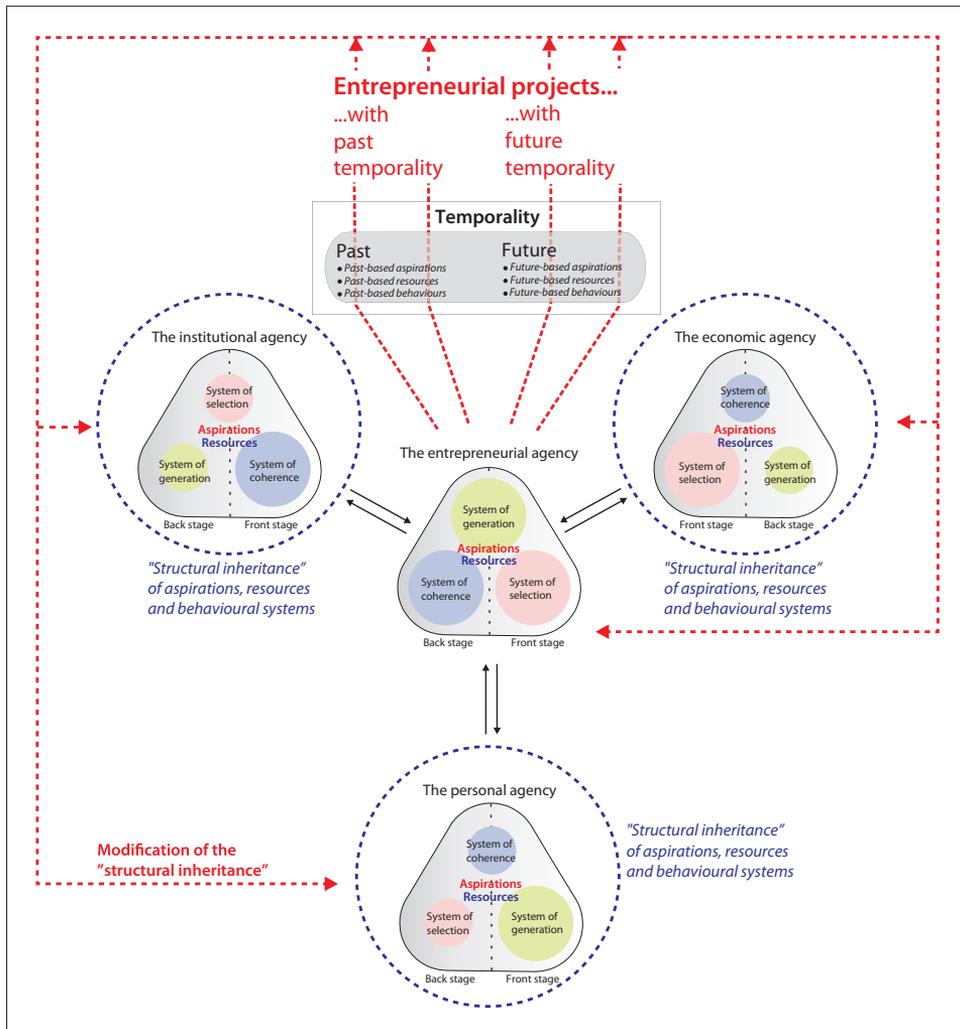


FIGURE 36 Studying Emergence, Survival and Success of the Entrepreneurial Projects with a Temporality Lens

5.5 Conclusion: Understanding the Use of the Research Lenses

The small firm world is characterised by the entrepreneurial projects of the entrepreneurial agency. They are strategic projects, directional futures projects, risky projects and learning projects, which have the potential for the introduction of situational novelty, or failure of the project and the entrepreneurial agency. The analytical structure provided by the metatheory may be used to describe, explain and predict their emergence, survival and success. Various research lenses may focus the inquiry on certain aspects to make the general and simple theory more precise. Rather powerful and overarching lenses of changeability, subjectibility and temporality are presented as “basic tools” for such a purpose, but other lenses may be used instead of them, or alongside them.

By placing “structural inheritance” and interaction on these continua, it is possible to derive coherent explanations and predictions. Confessing heterogeneity as the ontological premise, the emergence and success of the entrepreneurial project is always contextual and situational. *The research lenses may be used to define demarcation lines between particular and universal aspects of them within specific contexts.* Use of a solid metatheory with appropriate research lenses should make it possible to accumulate an understanding of this world and avoid fruitless confrontations between various rootless concepts or unidimensional paradigms. For example, instead of wrestling between selection *or* adaptation, one should just study changeability. If equipped with the typologist’s worldview, one may search for configurations along the three continuums as they afford and constrain specific kinds of entrepreneurial projects. If equipped with the populationist’s worldview, one may search for distributions of entrepreneurial projects along the three continuums (Figure 37). *If equipped with the mindset of some particular science, one may well investigate the psychology, economics or sociology of changeability, subjectibility and temporality among entrepreneurial projects of the small firm world.*

In any case, use of the three research lenses provides a possibility for capturing the essential causal forces or patterned elements of the multidimensionality prevalent in the small firm world. By basing the inquiry on the robust metatheory and attached research lenses, it should be possible to grasp the particulars in each occasion in a coherent manner.

In the remaining chapters, the use of the metatheory and the research lenses is illustrated using three mini-cases. They are presented *just as examples* of the benefits and potentials provided by the analytical structure in accumulating understanding of this peculiar world. More serious attempts to generate new understandings or rearrange existing knowledge are beyond the scope of this research project. For this reason, we use mini-cases with loosely derived research questions and exclude normal reflection of the extant literature of the issues (which abundantly exists). However, the analytical structure provided by the metatheory is general and should apply to any context and any entrepreneurial project.

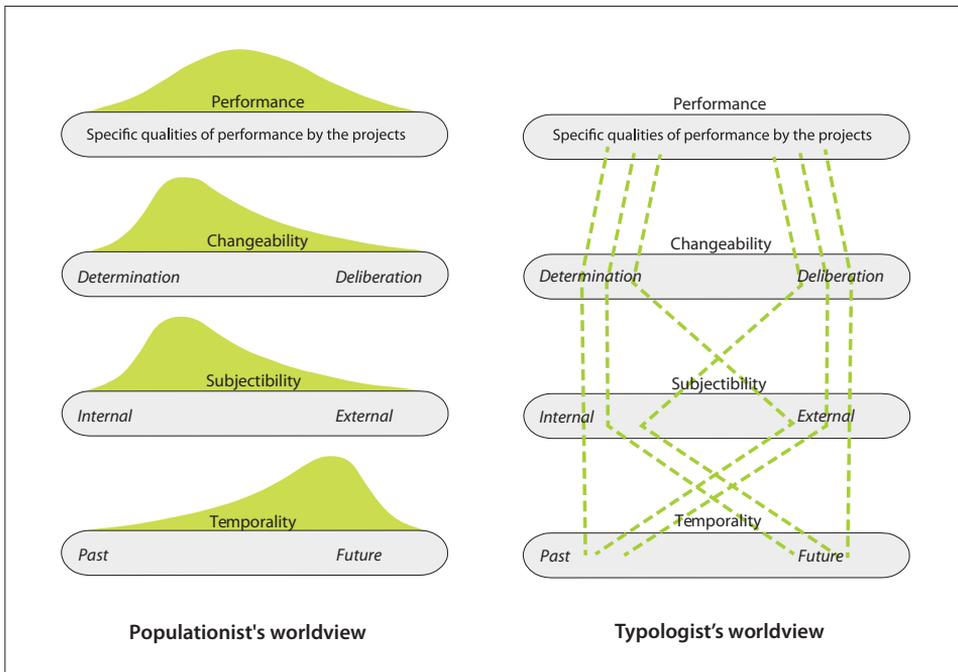


FIGURE 37 The Use of Research Lenses according to the Populationist's and Typologist's Worldviews: Hypothetical Illustrations



Part III

**STUDYING SMALL FIRM PERFORMANCE
AND ENTREPRENEURSHIP : EXAMPLES OF
APPLICATION OF THE METATHEORY**



6 Using the Metatheory with the Changeability Lens: Changeability of the Entrepreneurial Projects and the “Structural Inheritance”

“Smaller circles after each scampers mind in forward reach”

- Lauri Viita: Kotitaival [excerpt translated by the author]

6.1 Introduction

General Introduction to the Finnish Farm Context

Up until the 1st January, 1995, Finnish farmers were surrounded by a stable, predictable market and regulative environment for quite some time. The market prices were kept within annually agreed levels by border measures and several subsidies were paid to keep farmers' income levels competitive and to ensure food prices were affordable for consumers. The goal of self-sufficiency in basic food supplies was aimed at, but it was difficult to control the effects of improved technology and labour productivity. Consequently, structural change and inevitable production of exportable surpluses was contained by quotas, expansion licences, levies and several voluntary compensations, many in favour of small farms. The schizophrenic policy regime was an institutionalized remedy from the hard times which prevailed after the World War II, when it made a positive contribution to the food security of the cold northern country.

By the 1st of January, 1995, everything had changed. Finland joined the European Union, trade borders were abolished in the agricultural and food sectors, and the Common Agricultural Policy was adopted. The Finnish farm gate prices were cut by 40 %, on average, in one night to reach European market prices. Finnish farmers assimilated a new policy regime within the five-year transition period for the existing subsidies. The policy differentiation based on farm size was abolished. Some national subsidies were still allowed in the Accession Treaty to compensate for the harsh northern natural conditions.

Among the farm population, this kind of a change caused suspicion, fear, resistance – and a need to reconsider one’s strategy. The impacts of the reorientation are now observable. For example, the average farm size has increased by 1.0 ha/year in 1995-2008, when the increase in 1982-1995 was 0.3 ha/year. In 1990, about 18 % of farms were also engaged in non-agricultural businesses, whereas in 2007 the roughly comparable diversification figure was 35 %. The pressure on farmers to change make this particular group of privately owned, small family-firms¹³⁸ an extremely interesting research object, subjected to diverse personal, economic, cultural, and regulative forces. How do they identify and interpret the causal powers behind the specific courses of actions committed after this awakening change? *As an example*, we will focus our lenses on this place-bound population of small firms to illustrate the guidance which the metatheory can provide in making contextual inquiries.

Introduction to the Case

The metatheory could set the scene as follows. As long as an entrepreneurial project is comprised of the prototypic elements in one’s imagination, it may be easily defended against external forces. But it is affected by them through learned habits, beliefs, expectations and patterns of thought. As long as one lives in the internal “kingdom of speculation”, one may be free from direct external intervention, but one is obviously bound to the limits of one’s creative thought and one’s own instincts. *When one takes steps toward the exposure of the idea, intention, proposal and actual introduction of the entrepreneurial project, the external forces have a progressively visible and accessible object to put their hands on in order to investigate, affect and subject the newcomer introducing situational novelty.*

From the entrepreneurial agency point of view, the initial stages of incubation are very sensitive for any dominance-based or incidental influence to take the focus gain. As soon as the path of attention, emotion, thought, search and action is facing a particular direction pointed out by some markers, other directions turn grey and the chosen path becomes more colourful. The more one works with one specific path, the more precise the surrounding landscape appears to be. Along the steps taken, new things are learned and left behind as consolidated routines or “knowns”, and new things open up which may be observed, interpreted and acted upon on the basis of the accumulated “structural inheritance”. Such is acquired not only by the entrepreneurial agency but also by the external agencies through their interaction with the entrepreneurial agency and its project.

Since 1995, the population of Finnish farms has recovered from the “big bang” and reorientated toward new “fits” between their aspirations, resources,

¹³⁸ In 2007, about 98.8 % of the Finnish business farms were privately owned by private individuals, heirs or farming syndicates; the remaining 1.2 % of the farms was owned by the state, municipalities, limited companies, parishes, etc. About 96 % of the farm labour force was comprised by the farm family and only 4 % by hired regular labour force. The average turnover of the Finnish farms in 2006 was about 100,000 euros. About 43 % of the farm family income originated from outside the farm, mainly from salaried labour. (Information Centre of the Ministry of Agriculture and Forestry, Statistics Finland)

behaviours, and the environment. A diversity of entrepreneurial projects have been introduced, managed and closed since then. With the general ideas arising from the metatheory, several interesting questions emerge regarding the *changeability* of various aspects in this small firm world. The various agencies may afford or constrain specific changeability related to the projects, subject to change along the life cycle of the project. First, does the experienced changeability – as set by the various agencies surrounding the project as “structural inheritance” – *decrease during the lifetime of the project*? The logics of the metatheory would propose that this would be the case when the specific functionality of the markets, specific rationality of the choices, and specific institutionalization of the relationships, thoughts and actions gets a more solid grip on the slippery project. If this was the case, through which elements of the “structural inheritance” has this decreased changeability manifested itself *in this particular context* as experienced by the entrepreneurial agency? What have been the universal causal forces?

Secondly, a specific performance by an entrepreneurial project should be related to a specific changeability of the causal forces related to it. The role each domain of causal forces (aspirations, resources, behaviours) plays in this may partly depend on the context and may also differ between the main stages of the project, caused by the accumulation of “structural inheritance”. What kind of changeability will be related to the *specific personal, economic and institutional performance* by the entrepreneurial project as conceived by the entrepreneur owning the project? During the lifetime of the project, the accumulating “structural inheritance” of the past affects the project through more numerous channels and with a louder voice.

Thirdly, taking a broader view, the changeability of an entrepreneurial project may be related to a specific subjectibility and temporality as well. The projects may be affected by *specific multidimensional configurations of causal powers*. Taking an explorative multi-lens view, what kinds of configurations of causal powers affect the entrepreneurial projects in this context? Do they have implications on performance? The setting presented in Figure 38 serves as a general framework for the investigation into the changeability dynamics associated with these questions, used as examples of the guidance provided by the metatheory for contextual and observational research.

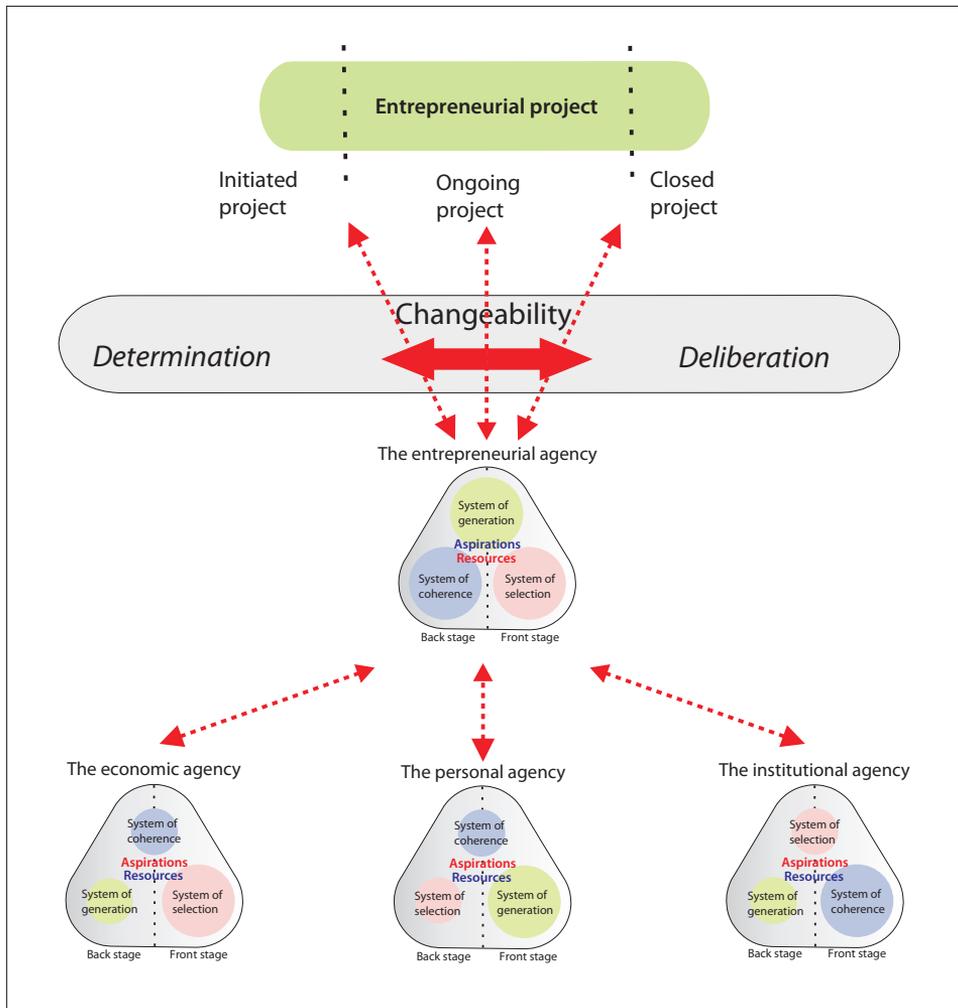


FIGURE 38 Research Framework for Studying Changeability Dynamics

6.2 Research Questions

Based on the initial advice provided by the metatheory, the following research questions have been created:

- Q1: Is the level of changeability experienced by the entrepreneurial agency highest in recently initiated projects, smaller in ongoing projects and smallest in closed projects?
- Q2: Is the specific performance of an entrepreneurial project dependent on specific changeability related to it; does the strength and quality of this relationship vary among recently started, ongoing and closed projects?
- Q3: Do changeability, subjectibility and temporality comprise specific multidimensional configurations of causal powers, which may have specific performance implications for the entrepreneurial project?

6.3 Data and Methods

Between March and April 1996, 928 farms were surveyed to investigate their situation post EU membership and to investigate their plans for the future. This was a representative sample (1.0 %) of all commercial farms in Finland, excluding farms smaller than 5 ha of field (e.g. home gardens and hobby farms). The same farms were surveyed again between February and March 2009 to collect data on their realized business actions. Due to a rather long period of observation, only 31.4 % of the original sample responded. Out of these 291 farms, 228 (78 %) were still in business and 63 (22 %) had closed down the farm business. The respective shares in the total population during 1996-2008 were 71 % and 29 %. So, the continued farms were slightly overrepresented in the sample. Compared to the original sample (situation in 1996), the sample attrition bias was rather small regarding the region (24-43 % of the original sample was included among 11 regions), farm size (27-36 %; 3 categories), farming sector (31-32 %; 2 categories), age of the farmer (27-35 %; 3 categories) and shares in agriculture of farmers income (29-34 %; 3 categories), often controlled for in farm studies. Since the research interest was in the internal processes of each farm rather than in the precise global forecasts or estimates, these biases did not harm the analysis.

The final sample consisted of 291 farms. They were sent a questionnaire and the results were collected by phone, allowing the researcher to check the data interactively. Since 1996, the respondents had started 49 new entrepreneurial projects, had 146 ongoing projects and had closed 115 projects. These 310 projects provided a reasonably rich data set for the analysis of changeability related to them. It was not possible to check the novelty and risk criteria explicitly and the projects were arbitrarily defined as separate businesses, which should fulfil the criteria in this context.

The entrepreneurs (farmers) were asked to fill in the *CST-Inventory* (Changeability-Subjectibility-Temporality) for the most important project they had started, continued, and/or closed during 1996-2008. The scale was specified for the language of the survey population, with a pretest. First of all, the *importance* (dominance) of the personal, economic and social-institutional agencies for the project, as perceived by the entrepreneur, was captured by a 5-point Likert-scale. This was done separately for aspirations, resources, and behavioural systems of generation, selection and coherence. The behavioural systems, however, were not specified for all the domains, but considered as a synthetic manifestation of the entrepreneurial agency.

Secondly, the *qualities* of the aspirations, resources and behaviours residing within each agency were placed along the three continuums of changeability, subjectibility and temporality by a 5-point Likert-scale (see Annex 1). A single missing value was considered neutral. Distinguishing between initiated, ongoing and closed entrepreneurial projects made it possible to study the relationships between the underlying causal forces and the life cycle of the project, when the respondents interpreted and described them using the *CST-Inventory*. The scales forced the respondents to try to capture and integrate the impacts of the multiple varying causal forces, one element at a time.

Thirdly, the respondents were asked to evaluate the personal, economic and social-institutional *performance* of each project using a 5-point Likert-scale. This made it possible to investigate the relationships between CST-Inventory, describing the causal forces affecting the project, and performance as conceived by the entrepreneurial agency.

In the analysis, ordinary statistical techniques (e.g. analysis of variance, correlation analysis, factor analysis, multinomial regression analysis) were applied. The simplest relevant technique was used to preserve transparency of the analysis, still working with a rather high level of abstraction to besiege multidimensionality. The results of the survey were, naturally, subject to the common perception and attribution biases when time may have eroded and coloured memories and conceptions (cf. Chandler & Lyon 2001, 112). They could still expose essential causal forces as the *basis of the action they actually undertook*, when life was understood backwards, guided and supported by the systematic questionnaire. The crude typologization lost much of the historical dynamics, which could have been exposed by more intimate research methods.

6.4 Results

Q1: Is the level of changeability experienced by the entrepreneurial agency highest in recently initiated projects, smaller in ongoing projects and smallest in closed projects?

The entrepreneurs featured separately the projects they had initiated, had ongoing and had closed during 1996-2008. The research question was approached by comparing the means of changeability between the three groups of projects. The large number of observations and roughly normal (bell-shaped) distributions allowed the use of ANOVA in testing the equality of means between them. When variances of the groups were not homogenous (Levine's test), a robust Brown-Forsythe test was used instead of ANOVA. When inequality was exposed, the statistically significant differences were identified by means of post hoc comparison of group means (Tukey test for homogenous variance and Tamhane test for non-homogenous variance). The analysis was made with unweighted and weighted data (importance x quality) to capture both the quality (unweighted) and strength (weighted) of the causal power related to specific changeability. The results are given in Table 1.

TABLE 1 Changeability Related to Initiated, Ongoing and Closed Projects as Perceived by the Entrepreneur

Element	Mean of Changeability ^{a)}			Levene Statistic ^{b)}	ANOVA F ^{c)}	Brown-Forsythe ^{d)}	Post Hoc Comparison of the Group Averages ^{e)}			
	Initiated (n=49)	Ongoing (n=146)	Closed (n=115)				Test	I-O	I-C	O-C
Unweighted Changeability										
Changeability of Aspirations:										
Personal	3.90	3.54	3.23	8.811***		11.046***	Tamhane	*	*	*
Economic	3.55	3.24	2.77	2.209	15.399***		Tukey		*	*
Social-Inst.	3.33	3.12	3.06	0.531	1.396					
Changeability of Resources:										
Personal	3.92	3.47	3.23	3.490*		12.152***	Tamhane	*	*	
Economic	3.41	3.27	3.03	0.087	3.763*		Tukey		*	
Social-Inst.	3.43	3.12	2.85	1.673	8.518***		Tukey		*	*
Changeability of Behaviours:										
Generative	3.80	3.56	3.11	0.630	11.760***		Tukey		*	*
Selective	3.69	3.46	3.10	0.555	8.654***		Tukey		*	*
Coherence	3.65	3.51	3.17	0.975	6.180**		Tukey		*	*
Changeability Weighted by Importance^{f)}										
Changeability of Aspirations:										
Personal	14.94	12.42	10.89	4.761**		10.423***	Tamhane	*	*	
Economic	13.84	12.99	8.81	0.065	27.569***		Tukey		*	*
Social-Inst.	9.12	8.43	7.35	0.717	3.145*		Tukey			
Changeability of Resources:										
Personal	16.12	13.37	9.96	3.235*		30.888***	Tamhane	*	*	*
Economic	12.78	12.49	9.92	1.484	10.581***		Tukey		*	*
Social-Inst.	11.90	10.16	7.49	0.291	21.708***		Tukey	*	*	*
Changeability of Behaviours:										
Generative	13.39	11.88	9.72	0.395	10.835***		Tukey		*	*
Selective	13.04	11.60	9.43	0.552	11.776***		Tukey		*	*
Coherence	13.45	12.82	10.11	1.521	10.822***		Tukey		*	*

a) 5-point Likert-scale: 1 = very low (difficult) changeability ... 5 = very high (easy, flexible) changeability.

b) Levene's test for the homogeneity of variance; *** p < 0.001, ** p < 0.01, * p < 0.05.

c) F-test statistics for the equality of means, one-way analysis of variance (homogenous variances); *** p < 0.001, ** p < 0.01, * p < 0.05.

d) Brown-Forsythe test statistics for the equality of means (non-homogenous variances); *** p < 0.001, ** p < 0.01, * p < 0.05.

e) Tukey test statistics for the statistical significance of the pairwise difference in group means with homogenous variance, Tamhane test statistics with non-homogenous variance; I = initiated projects, O = ongoing projects, C = closed projects; * p < 0.05.

f) Importance of each element; 5-point Likert-scale: 1 = not important ... 5 = very important.

Flexibility of all nine elements was highest in recently initiated projects, followed by ongoing projects during the years 1996-2008. The changeability of all nine elements was smallest in closed projects, featured by inflexibility of aspirations, resources and behaviours. The groups differed in changeability of every element (F, Brown-Forsythe), except for social-institutional aspirations. Observing also the importance of the element, generally accentuated the differences between the three groups of projects. Apparently, accumulation of the "structural inheritance" along the project was accompanied by specification of the path taken, precision of the aspirations related to it, consolidation of the "fits" between the resources committed to it, and institutionalization of the behavioural routines related to it: the changeability related to the project generally diminished toward the end of the project. *A multitude of internal and external forces had pushed the projects forward along a curtailing path.* The observations were not based on a panel data on the same project, which could have given a more precise picture of the temporal dynamics. The results described, however, a certain stage of the project (the early years of a recently started project; the project that had been ongoing for many years; a recently closed project) in a very systematic and logical way.

There were also more specific differences between the three groups of projects. Looking at the pairwise post hoc comparison of means, the changeability differed significantly between the *initiated* and the *closed* projects regarding all elements, except for social-institutional aspirations. The projects seemed to have an evident life cycle in this context, which was multidimensional and was manifested in all dimensions (and not only in the economic domain, for example).

Regarding the differences between the *ongoing* and the *closed* projects, the differences were less extensive and most common in the changeability of behaviours. The final stage of the projects was characterized by rigid generative, selective and coherence maintaining models and processes. The behaviours could be locked by inertial forces (habitualization, routines) or due to lack of energy by the entrepreneurial agency to maintain more flexible behaviours.

The differences between the initiated and the *ongoing* projects were least extensive and significant only concerning the personal aspirations and resources. In other words, it was *the flexibility of the personal aspirations and resources that decreased most apparently after the start-up of the project.* As soon as the path taken became more consolidated, what could be personally expected from it and what was the competence and personal input required by it, became more evident. In this context, these elements were affected by strong forces as soon as they were exposed to the influence.

Use of changeability weighted by importance generally accentuated the differences, especially concerning personal resources, social-institutional resources and economic aspirations. *The importance attached to the various elements made their differing changeability claims more pronounced between the initiated, ongoing and closed projects.* The difficulty of changing the personal resources (competence, health, etc.), social-institutional resources (networks, regulations, reputation, culture, etc.) and economic aspirations (income, profitability, etc.) in small, family-based, location-bound and heavily regulated farm businesses became even more evidently attached to the closed projects.

There appeared to be some degree of universality in the degree of changeability related to the entrepreneurial projects in this context. The various internal forces (impact of precised aspirations, sunk costs, routines, etc.) and external forces (impact of culture and social relationships, competition, regulation, etc.) made more specific claims on the path of the project. In the beginning, the aspirations, resources and behaviours related to the project were often considered flexible. In the end, the claims were more pronounced and specific. However, the heterogeneity of the projects should be acknowledged.

Q2: Is the specific performance of an entrepreneurial project dependent on specific changeability related to it; does the strength and quality of this relationship vary among recently started, ongoing and closed projects?

The average performance – personal, economic and social-institutional – was conceived highest in recently initiated projects, followed by the ongoing projects. The performance of the closed projects received the lowest rankings in all three dimensions (Table 2). This could have been caused by diverse causal powers: the amount of economic slack or debt, competence, sickness, quality of the entrepreneurial team, networks, competition, legislation and regulation, social pressures, habitualization of thought and action, etc. The changeability indicator should integrate these substantive forces and make it possible to investigate how changeability is related to specific performance by the project. This relationship was analyzed by means of simple correlation analysis between the three dimensions of performance of the project, and changeability of the various elements related to the same project (Table 2).

TABLE 2 Correlations between Performance and Changeability in the Initiated, Ongoing and Closed Projects as Perceived by the Entrepreneur^{a)}

Element	Initiated Projects			Ongoing Projects			Closed Projects		
	PP	EP	SIP	PP	EP	SIP	PP	EP	SIP
	<i>Mean of Performance:</i>								
	3.69	3.27	3.04	3.31	3.07	2.86	2.99	2.70	2.54
Unweighted Changeability									
Changeability of Aspirations:									
Personal	0.237	0.123	0.202	0.143	0.033	0.137	0.326***	0.262**	0.249**
Economic	0.362*	0.493***	0.279	0.106	0.146	0.243**	0.191*	0.171	0.026
Social-Institutional	-0.079	0.019	0.030	0.171*	0.100	0.232**	0.192*	0.125	0.165
Changeability of Resources:									
Personal	0.123	0.168	0.150	0.323***	0.192*	0.161	0.162	0.230*	0.081
Economic	0.059	0.440**	0.054	0.410***	0.341***	0.409***	0.180	0.214*	0.156
Social-Institutional	0.233	0.109	-0.080	0.181*	0.155	0.125	0.007	0.103	0.133
Changeability of Behaviours:									
Generative	0.054	0.186	0.232	0.115	0.068	0.110	0.066	0.142	-0.025
Selective	0.096	0.171	0.141	0.104	0.069	0.206*	0.091	0.090	-0.021
Coherence	0.302*	0.326*	0.291*	0.295***	0.199*	0.147	0.153	0.157	0.043
Changeability Weighted by Importance^{b)}									
Changeability of Aspirations:									
Personal	0.254	0.118	0.266	0.280*	0.198*	0.233**	0.287**	0.300**	0.207*
Economic	0.295*	0.501***	0.258	0.201*	0.359***	0.334***	0.166	0.147	0.037
Social-Institutional	0.106	0.162	0.507***	0.213*	0.222**	0.479***	0.104	0.173	0.213*
Changeability of Resources:									
Personal	0.166	0.186	0.170	0.347***	0.299***	0.278**	0.228*	0.264**	0.228*
Economic	0.097	0.360*	0.034	0.321***	0.355***	0.386***	0.129	0.156	0.244**
Social-Institutional	0.108	-0.009	0.244	0.279**	0.213*	0.308***	0.059	0.118	0.269**
Changeability of Behaviours:									
Generative	0.105	0.111	0.229	0.068	0.127	0.128	0.144	0.156	0.021
Selective	0.094	0.231	0.191	0.170*	0.114	0.242**	0.162	0.149	0.072
Coherence	0.087	0.192	0.326*	0.319***	0.255**	0.207*	0.196*	0.315**	0.095

a) PP = Personal Performance: Contribution of the project to personal satisfaction;
 EP = Economic Performance: Contribution of the project to incomes and profitability;
 SIP = Social-Institutional Performance: Contribution of the project to aspirations of the others and goals of the society. Pearson correlations with 2-tailed significance: *** p < 0.001, ** p < 0.01, * p < 0.05; Correlation above 0.3 on bold; Initiated n = 49, ongoing n = 146, closed n = 115.

b) Importance of each element; 5-point Likert-scale: 1 = not important ... 5 = very important.

The general conclusion was evident. *Flexibility (high changeability) of the various aspirations, resources and behaviours related to the project was clearly associated with a positive performance of the project in this context.* The general results applied to the personal, economic and institutional performance of the project. The relationship became more evident when changeability of the element was weighted by its importance for the project.

Second, *the breath of the association* varied between the recently initiated, ongoing and closed projects. Changeability was associated with performance through 6 (statistically significant) interfaces in initiated projects, through 12 interfaces in ongoing projects, and through 7 interfaces in closed projects. This indicates how the “fits” between the elements were still vague and iterative in the recently initiated projects, why the forces playing a specific role in performance could vary a lot between them. Consequently, not many universals existed between changeability and performance. Half of these universal forces (i.e., statistically significant) were related to the economic aspirations and resources, and half to the coherence maintaining behaviours.

In the projects which were *ongoing* for quite some time, the “fits” were already established. Changeability affected performance and maintenance of these “fits” through a broad frontier of interfaces, half of which were related to the various resources. The changeability of the social-institutional and economic aspirations and the coherence maintaining and selective behavioural forces were also associated with performance. In this context, the profile of the universally effective forces was very broad in established projects. The “fits” implying specific performance were multidimensional and changeability was an important dimension in their maintenance in this context.

The *closed projects* were again characterized by a narrower breath of association between changeability and performance. More than two-thirds of the effective forces were related to aspirations and one-third to resources. The performance of these projects was generally considered lowest among the three groups. The necessary and satisfactory “fits” could have not become established or they could have been lost for a variety of reasons. In such a situation, being willing and able to adapt one’s aspirations and resources to the inevitable (closure) or to utilize them in another project, could explain the positive performance effect of flexibility in closed projects. In the closed projects, fewer interfaces played a universal role for performance than in the ongoing projects.

Thirdly, besides the varying breath of the interfaces through which changeability affected performance, also the *intensity of the effect* differed among the elements. The strongest universal relationship existed between changeability of economic aspirations and performance in recently initiated projects. Also changeability of the economic resources made strong and explicit claims for performance both in initiated started and ongoing projects. In other words, flexibility of these two elements was the most powerful general predictor for positive performance in these stages and in this context. Generally, the strength of the universal (statistically significant) associations between changeability and performance was lowest in closed projects, where the changeability claims had the lowest common voice.

Fourthly, adding the importance of each element for the project increased the breath of the interfaces through which changeability affected performance.

There were 5, 23 and 11 universal (statistically significant) interfaces in initiated, ongoing and closed projects, respectively. The changeability of 23 elements (!) played a role on the performance of the ongoing projects. *The entrepreneurial agency maintaining this multitude of meaningful "fits" had to cope with true multidimensionality!* The "structural inheritance" now had a broader grip on the performance of the closed projects. On the other hand, in the recently initiated projects the universal interfaces became less numerous, but their claims become stronger especially for changeability of the social-institutional aspirations. *Considering the importance of the elements, being able to change few critical elements was the most important predictor of positive performance in recently initiated projects, whereas having flexibility to maintain a broad range of "fits" was the most important predictor of the established (ongoing) projects. Changeability affected performance of the closed projects again through less interfaces; in this context, the most important predictors of positive performance were related to the flexibility of personal aspirations and resources* (Table 2). Flexibility of the models and processes to generate ideas, business models and project alternatives played a marginal role on performance in this context. The behaviours related to their selection played no universal role, either. These seemed to be particulars in this context.

Apparently, there existed some degree of universality in how changeability of various elements was associated with a specific personal, economic or social-institutional performance of an entrepreneurial project. Generally, flexibility of aspirations, resources and behaviours related to a specific project was broadly associated with the positive performance of it. In particular, the breath of these interfaces varied among recently initiated, ongoing (established) and closed projects, and was most extensive in ongoing (established) projects. The strength of the association did not vary as much as the breath of the association, and tended to be generally weakest in closed projects. It was possible to identify weak predictors of performance, consolidating the impact of diverse substantive forces. Changeability of several elements did not have universal impact on performance in this context, however.

Q3_c: Do changeability, subjectibility and temporality comprise specific multidimensional configurations of causal powers, which may have specific performance implications for the entrepreneurial project?

It has become evident that changeability is an important dimension affecting entrepreneurial projects. It is possible that the same elements of aspirations, resources and behaviours are interrelated also through other dimensions: subjectibility (internal vs. external) and temporality (past vs. future). The thought and action of the entrepreneurial agency may be directed by some coherent configurations of causal forces. Taking a full three-lens view of these 310 projects, explorative factor analysis was used to identify such configurations or basic recipes driving the projects. Unweighted indicators were employed in the analysis to capture the pure quality of the effective powers. When the shared variance (configuration) was aimed to be captured by the latent variables (factors) rather than compression of all variance, principal axis factoring was preferred over principal component factoring. Orthogonal (Varimax) rotation produced more logical results than oblique rotation. The results are given in Table 3.

TABLE 3 Configurations of Causal Forces Driving the Projects: Statistical Specification by Explorative Factor Analysis^{*)}

Element	Factors						Communality
	F1	F2	F3	F4	F5	F6	
Personal Aspirations:							
Changeability	0.055	0.521	0.248	0.046	-0.028	0.371	0.476
Subjectibility	0.184	0.014	-0.005	0.768	0.013	0.004	0.623
Temporality	0.076	0.217	0.273	0.066	0.144	0.519	0.422
Economic Aspirations:							
Changeability	0.016	0.526	0.225	0.112	0.009	0.282	0.420
Subjectibility	0.154	0.127	0.013	0.662	0.015	0.037	0.479
Temporality	0.029	0.302	0.267	0.043	0.149	0.525	0.463
Social-Institutional Aspirations:							
Changeability	0.020	0.603	0.038	0.060	0.042	0.233	0.425
Subjectibility	0.148	-0.114	-0.002	0.518	0.143	0.197	0.363
Temporality	0.042	0.271	0.122	0.033	0.146	0.568	0.363
Personal Resources:							
Changeability	-0.013	0.511	0.257	-0.084	0.273	0.090	0.417
Subjectibility	0.228	0.006	-0.156	0.357	0.506	-0.137	0.478
Temporality	0.043	0.154	0.066	-0.056	0.625	0.260	0.492
Economic Resources:							
Changeability	-0.055	0.594	0.142	-0.038	0.235	0.000	0.433
Subjectibility	0.127	0.053	-0.101	0.212	0.473	-0.025	0.299
Temporality	0.049	0.250	0.122	-0.005	0.519	0.142	0.370
Social-Institutional Resources:							
Changeability	0.024	0.438	0.107	-0.023	0.203	0.066	0.250
Subjectibility	0.193	-0.007	0.034	0.430	0.339	-0.092	0.347
Temporality	0.061	0.227	0.042	0.078	0.471	0.193	0.322
Generative Processes and Models (System of Generation):							
Changeability	0.114	0.212	0.698	-0.037	0.019	0.189	0.582
Subjectibility	0.681	-0.006	-0.107	0.198	0.031	0.002	0.515
Temporality	0.630	-0.013	0.122	-0.005	0.109	0.224	0.474
Selective Processes and Models (System of Selection):							
Changeability	0.005	0.236	0.716	-0.003	0.014	0.103	0.580
Subjectibility	0.632	0.049	-0.021	0.327	0.077	-0.033	0.517
Temporality	0.626	0.093	0.240	0.114	0.103	0.058	0.485
Coherence-Maintaining Processes and Models (System of Coherence):							
Changeability	0.027	0.166	0.707	0.037	-0.046	0.155	0.556
Subjectibility	0.666	-0.106	-0.021	0.256	0.077	-0.105	0.537
Temporality	0.428	0.112	0.404	-0.093	0.186	0.270	0.475
Eigenvalue	5.111	3.229	1.543	1.061	0.685	0.606	
Share of Variance, %	18.9	12.0	5.7	3.9	2.5	2.2	Sum: 45.3

^{*)} Factor extraction by Principal Axis Factoring and rotation by Varimax with Kaiser Normalization. Analysis with unweighted variables; n = 310. Factor loadings above 0.5 on bold.

Seven factors were extracted in the analysis (initial Eigenvalue higher than one), but the last was dropped as it was considered meaningless. The six factors captured 45 % of the variance, which is surprisingly high. They explained 25-58 % of the variance of the individual variables (Communality). Each of the variables loaded strongly only one variable and each factor correlated strongly with several variables. As such, it was possible to expose some degree of “configurational universality” among the causal forces (not among projects), which affected the projects. Many configurations were apparently non-universal (still different combinations), weak or non-existing (projects driven by one “cause”), comprising the remaining part of the variance.¹³⁹

Factor 1 described the subjectibility (internal–external) and temporality (past–future) of the generative, selective and coherence maintaining behaviours. Whether behaviours were dominated by internal or external forces and directed by the past or the future was defined by a coherent configuration of causal powers. *These forces seemed to be strongly interrelated as they consolidated into a single factor.* Being driven by internal behavioural forces and models worked together with being oriented toward the past; being driven by external behavioural forces and models worked together with being oriented toward the future in this context. The future-oriented influence came from the outside. This factor alone was able to capture about 19 % of the total variance, indicating rather widespread universality of this configuration of causal powers.

Factor 2 captured the causal powers related to the changeability of aspirations and resources. Changeability of all types of aspirations and all types of resources were attached to the factor with considerable loadings. Apparently, changeability of aspirations and resources formed an interrelated and coherent causal force affecting the introduction, management and closure of projects. The flexibility (or inflexibility) of *all kinds* of aspirations and *all kinds* of resources tended to flavour the projects. They worked out as a bundle. The factor explained 12 % of the total variance.

Factor 3 described the changeability of the generative, selective and coherence maintaining behavioural forces. The behaviours tended to be flexible or inflexible regarding all three processes. This was slightly combined with temporality of coherence maintaining behaviours, which also loaded the factor moderately. Indeed, flexible behaviours were related to coherence maintaining behaviours driven by foresight. This factor explained much less of the total variance than the first two ones, only about 6 %.

Factor 4 consolidated the subjectibility of personal, economic and social-institutional aspirations into a single factor. They seemed to work out together as a coherent whole. The aspirations related to projects seemed to be dominated by either internal or external forces regarding all three domains. Universality proposed by this factor was quite low, with only 4 % of the variance explained.

¹³⁹ If only compression of the variance was aimed for, the principal component extraction would have yielded seven meaningful components with 61 % of the total variance and 44-71 % of the variance of the individual variables explained.

Factor 5 exposed the subjectibility and temporality of resources to be a unified causal force in this context. The internal resources were logically past-based (accumulated), whereas the external resources were acquired with a focus on the future. Finally, factor 6 indicated that the personal, economic and social-institutional aspirations related to the project had a common temporal focus. They were all targeted either toward coping with some specific past concerns or toward some specific future desires, for example. Both factors explained a rather small share of the total variance, however.

Indeed, changeability was not the only coherent causal force affecting the projects. By taking a broader view, it became apparent that in this context several causal powers affected the projects as coherent configurations. Some universality existed among them. *On average*, they characterized the initiated, ongoing and closed projects differently. A large share of the recently initiated projects scored high in flexibility and future-orientation. The causal powers affecting newborn projects in this context are comprised by few configurations having a clear voice. Ongoing (established) projects received generally lower scores, but still indicated the causal powers related to flexibility and future-orientation in playing a universal role. A large share of closed projects was characterized by inflexibility and past-based aspirations. The low average scores imply high amount of heterogeneity among the causal powers affecting the projects.

	<u>Mean of Factor Score</u>		
	<i>Initiated</i>	<i>Ongoing</i>	<i>Closed</i>
(F1) Behaviours: Subjectibility-Temporality	0.32	0.06	-0.09
(F2) Aspirations and resources: Changeability	0.40	0.03	-0.21
(F3) Behaviours: Changeability	0.27	0.10	-0.25
(F4) Aspirations: Subjectibility	-0.06	0.02	-0.01
(F5) Resources: Subjectibility-Temporality	0.12	0.06	-0.13
(F6) Aspirations: Temporality	0.29	0.10	-0.24

So, it was possible to capture statistically several interrelationships of the elements affecting the projects. Due to their numerosity, varying roles over time and fuzziness, they would have been hard to describe by the entrepreneurs, but is still possible to capture by simple statistical methods. It is always easier to spot a single critical factor in a matter at hand than to evaluate the role of a large number of varying forces. Many of their relationships are not that well exposed or may have become embedded in the routines. By focusing the lenses on a more limited target would yield more detailed information.

As the forces affecting the projects seemed to be interrelated in a specific way, it is interesting to study the performance implications of these configurations. The next step sees the factor scores of each project tested as predictors of specific personal, economic and social-institutional performance of the project. If a project scores high in a certain factor, it is affected by that specific configuration of causal powers. Performance was recoded as low (categories 1 and 2), medium (category 3) and high (categories 4 and 5). The results of the multinomial regression analysis are presented in Table 4.

TABLE 4 Configurations of Causal Forces as Predictors of Project Performance^{*)}

	Performance = Medium		Performance = High	
	β	Wald	β	Wald
Personal Performance:				
Intercept	0.438	6.435*	0.761	21.281***
Factor 1 (Behaviours: S-T)	-0.049	0.075	-0.052	0.085
Factor 2 (Aspirations & Resources: C)	0.636	8.769**	1.107	25.815***
Factor 3 (Behaviours: C)	-0.033	0.032	0.229	1.550
Factor 4 (Aspirations: S)	-0.114	0.329	-0.276	2.038
Factor 5 (Resources: S-T)	-0.028	0.022	0.259	1.832
Factor 6 (Aspirations: T)	0.133	0.387	0.177	0.721
Model:	Model $X^2 = 45.814$, $df = 12$, $p < 0.001$ -2 log likelihood = 553.216 Nagelkerke $R^2 = 0.156$, Cox & Snell $R^2 = 0.137$ Observations $n = 310$			
Economic Performance:				
Intercept	0.347	5.600*	0.023	0.021
Factor 1 (Behaviours: S-T)	0.213	1.708	0.102	0.323
Factor 2 (Aspirations & Resources: C)	0.355	3.734	0.814	15.338***
Factor 3 (Behaviours: C)	0.263	2.475	0.514	7.490***
Factor 4 (Aspirations: S)	-0.224	1.647	-0.264	1.989
Factor 5 (Resources: S-T)	0.223	1.731	0.381	3.816
Factor 6 (Aspirations: T)	0.079	0.173	0.149	0.520
Model:	Model $X^2 = 40.004$, $df = 12$, $p < 0.001$ -2 log likelihood = 580.444 Nagelkerke $R^2 = 0.136$, Cox & Snell $R^2 = 0.121$ Observations $n = 310$			
Social-Institutional Performance:				
Intercept	0.131	0.970	-0.698	15.620***
Factor 1 (Behaviours: S-T)	-0.008	0.003	0.120	0.399
Factor 2 (Aspirations & Resources: C)	0.056	0.107	0.856	14.149***
Factor 3 (Behaviours: C)	0.115	0.565	0.390	3.884*
Factor 4 (Aspirations: S)	0.164	1.073	0.298	2.418
Factor 5 (Resources: S-T)	0.295	3.335	0.629	8.394**
Factor 6 (Aspirations: T)	0.374	4.453*	0.357	2.699
Model:	Model $X^2 = 43.122$, $df = 12$, $p < 0.001$ -2 log likelihood = 565.066 Nagelkerke $R^2 = 0.147$, Cox & Snell $R^2 = 0.130$ Observations $n = 310$			

^{*)} Multinomial Regression Analysis with Reference category: Performance = Low.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

With regards to good *personal performance* of the project, there was only one statistically significant predictor among the configurations of causal powers (factors). The projects that ranked high in factor 2 (i.e. were dominated by these causal powers) were predicted to indicate an average or high performance rather than a low performance. The factor expressed the influence of changeability of aspirations and resources. Consequently, *flexible aspirations and flexible resources* as a configuration of causal forces related to the project was a strong predictor of good personal performance of the project in this context. The statistical reliability of the model was good, but logically it was able to capture only a rather small share of the total variance. Still, some universality existed in the performance effects of the configurations of causal forces. What the substantive aspirations and resources might have been in each case may be explored by a more extensive survey or by more intimate methods, but *irrespective of their content it was their flexibility that mattered for the personal performance*.

Regarding the high *economic performance* of the project, there were two factors which had predictive powers: changeability of aspirations and resources, and changeability of behaviours. They distinguished only the high performing projects from the low performing ones, whereas for the medium performance projects there were no statistically significant predictors. Evidently, *broad flexibility* predicted high economic performance by the entrepreneurial projects in this context.

Regarding the *social-institutional performance* of the project, different factors predicted medium and high performance. Temporality of aspirations predicted medium rather than low social-institutional performance of the project. Having *future-oriented aspirations* rather than past-based aspirations was enough to make a distinction in this context. For the high performance, there were three statistically significant (=universal) predictors: changeability of aspirations and resources, changeability of behaviours, and subjectibility and temporality of resources. *Broad flexibility and some external resources acquired with a focus on the future* dominated projects predicted to have high social-institutional performance.

It became evident that changeability, subjectibility and temporality of various elements formed coherent combinations or configurations of causal forces affecting entrepreneurial projects. For example, the project was characterized not only by flexible (or rigid) resources, but also by flexible (rigid) aspirations simultaneously related to it. *Various forces related to the projects pushed the thought and the action in a specific direction as a frontier of several specific and more substantive forces*. A single element (e.g. economic resources) may have played a critical role for some projects, but also universality existed among interrelated combinations of causal powers. It was possible to identify several such configurations and they had predictive powers for the performance of the project, as experienced by the entrepreneur. The substantive aspects they represent in each case may be different, but it was possible to consolidate the underlying heterogeneity up to an extent allowing this kind of analysis. The degree of universality exposed may be different in another context.

6.5 Discussion

Entrepreneurs introducing, managing and closing various business projects were influenced by multidimensional tenders and claims for changeability. In the early stages of the project, such were focused on *few elements* that were critical for finding and establishing necessary and satisfactory “fits” between the various aspirations, resources and behavioural models related to the project. Whether there was flexibility in some specific elements (e.g. economic aspirations and resources) could be critical for the project. Along the lifetime of the project, the “structural inheritance” accumulated and consolidated into a *broad set* of forces affecting changeability of the elements. The “fitness landscape” (Kauffman 1993, 40) was experienced to be broader or more complex than in the beginning. If the necessary and satisfactory “fits” were not achieved or they were lost for any reason, the project was at risk. The closed projects were characterized by a low changeability: there was no willingness or ability to change the aspirations, resources and behaviours related to them. Projects certainly were closed for a variety of reasons, but specification and institutionalization of the aspirations and behaviours related to them and the fixed nature of resources (sunk costs) committed to them played a role. *Several internal and external forces had a more solid grip on the projects as soon as they were introduced.* The path taken by the project became more specific and it became more difficult to change it (Figure 39). *The numerous forces together had an effect as configurations of causal powers rather than if they worked in isolation.* These bundles manifested natural synergies and conflicts of the underlying components and formed “structural attractors” of causal forces affecting business projects in this context (cf. Allen et al. 2007, 421-422). The interdependencies of the causal forces had implications on performance were most extensive in the social-institutional domain in this context (i.e. the K was highest in the NK model featuring complexity; Hodgson & Knudsen 2006, 288; Kauffman 1993, 40). Besides the complexity view, many other fields host ideas and empirical findings resembling the substance of this case, but their reflection is out of the scope of this illustrative example.

In this case, the project was used as the point of observation. It illustrated the challenge of finding universality in a phenomenon characterized by heterogeneity and multidimensionality. Evidently, running a business in this context was much more than a “price reactor” as proposed by conventional economic theory. Such claims could capture only a slice of the causal powers affecting these business projects. *“To explain or predict anybody’s actions is a far bigger job than to explain or predict his reactions to certain types of events or changes of conditions”* (Machlup 1974, 276). *Being able to capture the multitude of causal powers and finding the level of universality in their claims are the real challenges for the scientific enterprise trying to understand the small firm world.*

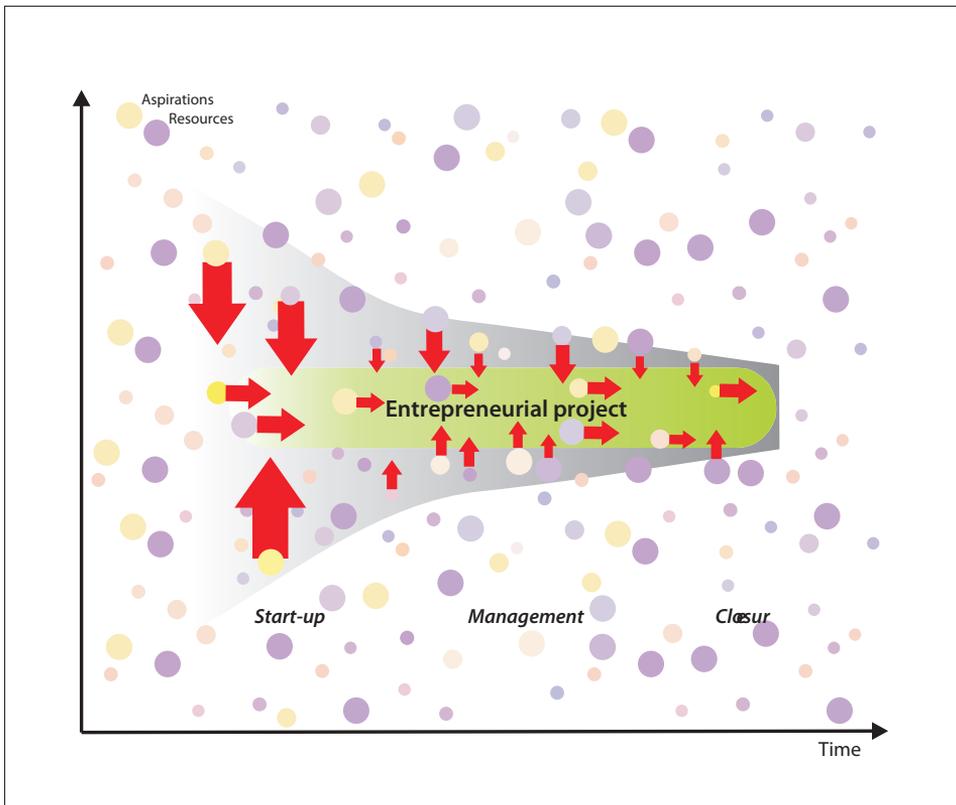


FIGURE 39 Decreasing Changeability Related to an Entrepreneurial Project along the Accumulation of “Structural Inheritance”

The mini-case exposed a number of causal forces to have a specific degree of universality in this context. In another context, different forces could indicate universality, there could be less or more of them, they could work in another kinds of configurations and have different effects on performance. More detailed surveys could expose which substantive elements or events produced a specific force in each context. Such are only of context specific relevance, however. Understanding that in different contexts there is different level of universality, understanding where it is, why and with what implications, is the key to the accumulation of scientific understanding of entrepreneurship and the small firm world. Producing a pile of isolated empirical findings without an agreed analytical structure binding them together (so common in studies of entrepreneurship and small firms), fixing the causal forces *ex ante* or ignoring some of them (like in economics) provides no real progress of understanding, but rootless observations or partial explanations. To achieve real progress, it should be possible to collect the *numerous* causal forces and relationships in a somewhat uniform way to be able to make comparisons between contexts regarding their breath and strength.

Analytical tools for specifying multidimensionality are limited. In this exercise, the CST-Inventory crafted with the advice of the metatheory appeared to be useful in capturing the effective forces in a systematic way. It still deals with

rather abstract and synthesized issues, but such is required if a broad coverage of forces is to become achieved. It could be improved, of course, and adapted to different contexts. For example, the subjectibility of resources could have been accompanied with more extensive instruction and illustration for the respondents to take a firmer position regarding it. The ICT-scale could be used in surveying the same project in different points of time, or it could used in case studies to track the role that various forces play during the life-time of the project in a more accurate way. Also in this case, the earlier survey of the same respondents could be used to identify the substantive factors related to the specific qualities of the causal forces. Such inquiries could expose more context specific particulars. Here, the ICT-Inventory is presented as an example of the methodological development toward which the metatheory could encourage students.

7 Using the Metatheory with the Subjectibility Lens: The Dialogue between the Agency “In Here” and the Structure “Out There”

*“Sunk in the sea are flowered hills.
The poor man here with uncovered bills.
All was offered for a moment bold,
paying by sorrow for the dreams of gold.”*

– Eino Leino: Elegia [excerpt translated by the author]

7.1 Introduction

For this exploration, the metatheory could set the scene as follows; upon the emergence and along the lifetime of an entrepreneurial project, the entrepreneurial agency “in here” and the existing structures “out there” are engaged in an ongoing dialogue. It is the interplay of the internal and external forces that makes history. Their role may vary along the lifetime of the entrepreneurial project, when the demarcation line between internal and external “power fields” changes. Their demands and relationships may be fuzzy and poorly perceived for considerable periods of time. Sometimes their roles accentuate and a clearly indentifiable bifurcations point may emerge, when they make pronounced claims for a specific course of action. Then they put some elements on the “front stage” with more explicit and easily observable causal powers. *The focus of the entrepreneurial agency is always directed by some specific force – if not by the generation of alternatives or complying with some selective forces, then by the routines or forces keeping the course of action in the existing lines.* This kind of a reflexive dialogue will bring about different paths for the course of thought and action by the entrepreneurial agency in introducing and managing her projects. Such adaptive fabric may have specific performance implications for the agency and for the project.

Entrepreneurs using small firms as platforms for their small business projects confront many kinds of demands by the external agencies to establish and maintain sufficient “fits” between the constituencies. The dynamics of such

interplay of varying causal powers by the agency and the structures, by the internal and the external, is an important factor behind specific performance outcomes in the adaptive framework. Investigating a sample of farm-based entrepreneurs in rural Finland, who have a history of entrepreneurial projects, leads to several interesting questions which may be proposed as advised by the metatheory. First of all, does the sequence of thought and action indeed run *predominantly in a single direction upon commitment*, from the inside out or from the outside in? This would make it possible to classify engagements into bricolages or opportunity exploitations. The metatheory would suggest that entrepreneurial projects may introduce novelty in any social context, but the slow “evolutionary hand” of the “structural inheritance” could institutionalize specific behavioural inclinations and constellations. The directional predominance could be context specific, agency specific or project specific, but only probabilistic. Analysis of the cases may clarify this issue.

Secondly, does the initial predominance of the internal agency or the external structure govern the entire commitment to a project? Does it differ between the projects of the same entrepreneurial agency in some systematic way? Is the entrepreneurial agency able to use some “theory” for finding and maintaining satisfactory “fits” along accumulating capacity? As soon as the “fit” is found, there are many claims for institutionalization. Along this line of reasoning, it may be proposed that there are changes in the dominance of the internal entrepreneurial agency and the external agencies during the lifetime of the project, observable as *bifurcation points*.

Thirdly, *dominance of the behavioural systems* of generation, selection and coherence by the entrepreneurial agency could be related to the bifurcation points, accentuating the need to make sense and control the changed power fields. It should also be observed that the personal agency is external to the entrepreneurial agency (analytical dualism), affording and constraining the thought and action in the same sense as the economic and institutional agencies. Figure 40 illustrates the general research setting for analyzing these questions.

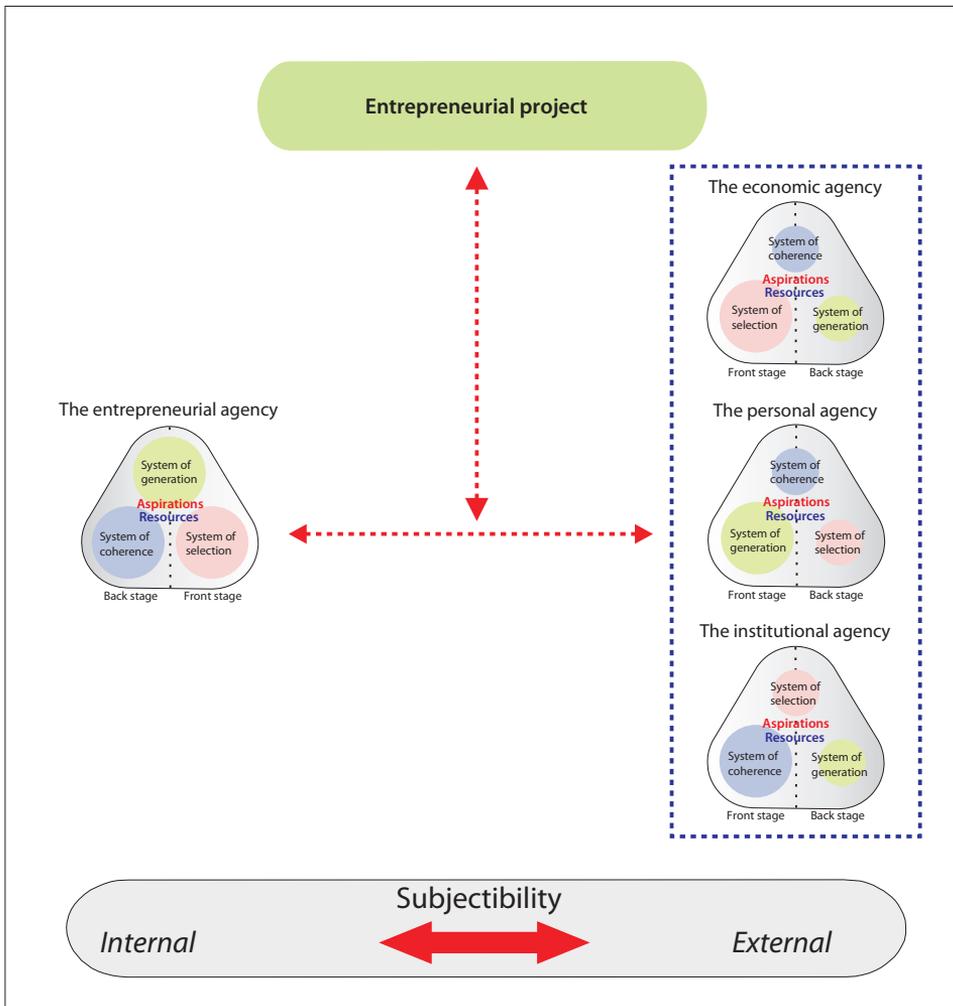


FIGURE 40 Research Framework for Studying Subjectivity Dynamics

7.2 Research Questions

Based on the initial advice provided by the metatheory, the following research questions have been created:

- $Q1_s$: May the "structural inheritance" set up a specific directional focus in the initial commitment to an entrepreneurial project, featuring bricolage or opportunity exploitation?
- $Q2_s$: Do the entrepreneurial agency and the external agencies change their modes of dominance in identifiable bifurcation points related to the entrepreneurial project?
- $Q3_s$: Is the varying dominance of the behavioural systems of generation, selection and coherence by the entrepreneurial agency related to the bifurcation points?

7.3 Data and Methods

Three farm-based entrepreneurs in remote rural Finland were interviewed face to face to capture the dialogue between internal forces of the entrepreneurial agency and external forces of the other agencies related to their entrepreneurial projects. The cases were selected with professional advice to find entrepreneurs having experience with several projects. This made it possible to analyze not only different entrepreneurial agencies but also different projects relating to the same agency. Where the entrepreneurial agency was comprised by a family team, the member with the most intimate relationship with the projects was interviewed. General characteristics of the cases are illustrated in Table 5.

TABLE 5 General Characteristics of the Analyzed Small Firm Cases

Case	Entrepreneur		Entrepreneurial Projects					
	Age	Years in Business	No.	History & Current Status	Business Years	Max. Size ⁾	Entrep. Agency	Industry
1	46	26	#1-1	Ongoing-Closed	23	2.0	Team	Animal farming
			#1-2	Initiated-Closed	7	1.0	Team	Food processing
			#1-3	Intiated-Ongoing	2	1.0	Solo	Personal services
2	39	20	#2-1	Ongoing-Closed	10	5.0	Solo	Berry farming
			#2-2	Intiated-Closed	13	1.0	Team	Farm tourism
			#2-3	Intiated-Closed	6	2.0	Team	Timber processing
3	51	29	#3-1	Ongoing-Closed	15	1.5	Team	Animal farming
			#3-2	Intiated-Ongoing	13	2.0	Team	Retail trade
			#3-3	Intiated-Ongoing	9	4.0	Team	Bioenergy
			#3-4	Intiated-Ongoing	1	0.3	Solo	Retail trade

⁾ Maximum number of employed during the lifetime of the project in full-time equivalent, including own, family and hired labour.

The entrepreneurs were interviewed using the questionnaire in Annex 2. First of all, the entrepreneurial projects were identified, specified and checked for the novelty and risk criteria. Then they were discussed according to the themes set out in the questionnaire to expose the fabric relevant to each project, supported by a mapping technique. The entrepreneurs were guided to focus on the demarcation line between the internal and the external influence in each case: where was it; why was it there; did it change; why did it change. Furthermore, the forces of generation, selection and coherence, guiding the thought and action in various stages of the projects, were identified. The interviews were supplemented by graphic tools for positioning the elements and for clarifying their relationships as power fields. The drawings were used as *“one form of data”* (Broussine 2008, 84). The interviews were recorded (4 hours) and analyzed for the indicators related to the hypotheses. Finally, the sketched power field maps were verified by the entrepreneurs; there were no changes to be made to the maps.

The technique was sensitive to retrospect and attribution bias, which is considered usual in these kinds of research designs of varying lags (e.g. Mitschell & James 2001, 537). This concern is very well recognized by the scholars (e.g.

Kickul et al. 2009, 445), but the other side of the coin is often not considered. For example, the timely observation of the action driven by a deliberate internal motivation (avoiding the resrespect bias) may become only later understood to have been a deterministic reflection of an external institutionalized expectation (exposing the attribution bias). The demarcation lines are, indeed, sometimes fuzzy.

7.4 Results

Q1_s: May the "structural inheritance" set up a specific directional focus in the initial commitment to an entrepreneurial project, featuring bricolage or opportunity exploitation?

Out of the ten entrepreneurial projects in the data, three were ongoing projects which had been initiated by the previous generation of the family business and were passed on upon succession of the family business to the next generation. So, there were seven genuine start-ups of new projects in the data (Table 6). The start-ups were driven by very diverse aspirations, including economic and personal concerns, technological and business related "burning" desires, resistance of the external influence and a quest for one's "own path", etc.

Analysis of the rather intimate data revealed that one of the projects (#3-4) was strictly close to a bricolage, where the entrepreneur had to bear a saleable stock after the fully incidental refusal of a partner candidate to go into business. She decided to try selling the stock and consequently committed in the business. Business was conducted with what was at hand, but was lacking in evident opportunities. On the other hand, one of the projects (#3-3) was strictly close to an opportunity identification and exploitation, when the increased market price for oil was (correctly) anticipated and exploited by supplying bioenergy. The offer was accompanied by well fitting resources for the business (machinery, competence). The remaining five projects were characterized by highly iterative and reflexive processes; they were based neither on the resources at hand nor on the evident opportunity only, but new competences had to be acquired and the opportunity had to be developed along the process. It is rather difficult to classify the projects to fall clearly into one category. Such clear dichotomy seems not to reflect the essence of the start-up dynamics in the context.

TABLE 6 Illustrations of the Project Start-Ups

Project	Illustration
#1-2	A quickly selected response to income loss caused by the EU membership
#1-3	A slowly iterated constrained choice after closure of project #1-2 due to sickness
#2-2	A quickly taken surprising path in anticipation of the detrimental effects by the EU membership on project #2-1, fuelled also by resistance of the social-institutional expectations
#2-3	A business diversification trial driven by market analytics, resources and self-efficacy belief
#3-2	A developmental process characterized by initial suspicion, speculation and highly interactive elaboration between the constituencies in response to the changes caused by the EU membership, initiated by a "social movement" consolidating during a local development project
#3-3	A slowly incubated project connecting internal aspirations, competences and other resources with the demand arising along the changing environment
#3-4	An incidental event leading to a business trial and subsequent commitment

Rather than making do what was (internally) at hand or identifying and exploiting an (external) opportunity, the start-up of the entrepreneurial projects in this context seemed to be a *highly iterative and interactional process*. Many internal and external forces played a role (economic, personal, social-institutional). The "internal" and the "external" were *both* considered necessary for the start-ups, despite their sometimes conflicting forces in the beginning. The several internal and external factors related to the start-up were impossible to be analyzed by a global calculation of a rational choice due to their diverse character, but were included in the *multidimensional pool of driving forces* with varying force and specificity. Some citations may illustrate the issue:

"The whole new business ... the external professional attitude was like 'that is going to fail' and 'at least that is going to fail'. That kind of resistance. But at the end it turned out different and I am very pleased with those professionals ... we visited business sites and attended courses together." (Project #1-2; 12")

"The internal factors were dominating ... The external factors were picked up like berries for the cake ... The external factors were more significant in the sense that they were needed to make it possible. The intention was internal – the desire and the vision to do it. If there was an ability to see and an ability to do, there would not have been confidence on the ability to do without the external [economic] incentives." (Project #2-2; 39")

"It just happened for some reason that the desires, wishes and expectations of the external people coincided pretty well with what became decided to be done [by the entrepreneurial team]." (Project #3-2; 32")

"Since the early of the 1980s there had been this forest business with the machinery, competence, relationships with the firms, and the business there. And then, [the ability] to see the forest and to think about it and to observe the vast amount of unexploited

timber. And the local development project, with some others, was related to it. And the general trend of using timber as a fuel and the increased energy prices. And at least the need to study how the change of the world is related to us had a strong influence. And how our competence and the need arising in the external world will become combined. It was a result of a very long gestation period.” (Project #3-3; 48”)

The project was started when an appropriate “fit” was achieved between many constituencies. The “fit” was a threshold allowing the exchange of aspirations and resources, not an “optimal fit”. Both the internal and external aspects afforded and constrained some elements related to the projects. In some projects the capacity of the entrepreneurial agency dominated the start-up, in other projects the external agencies or structures were considered to be the dominant force, but *in all cases the emergence of the project with specific offerings was characterized by an iterative “dialogue” between the internal and the external.* Working only with what is currently at hand (bricolage) or exploiting an *evident* opportunity, were both exceptions, only partially reflected in the projects. Generally, diverse forces (personal, economic, social-institutional) activated and directed the thought and action towards finding and establishing the necessary “fits” for the prototypic projects. Indeed, *the process of establishing and maintaining multidimensional “fits” allowing the exchange of aspirations for resources among the constituencies of the entrepreneurial project* seems to be a much more appropriate concept to capture and analyze them in this context than the dichotomy of bricolage vs. opportunity exploitation.

Q2₅: *Do the entrepreneurial agency and the external agencies change their modes of dominance in identifiable bifurcation points related to the entrepreneurial project?*

Confessing the simultaneity of diverse forces poses serious methodological problems in capturing the forces and their impacts. In this study, they were comprehended and analyzed as “force fields” (c.f. Lewin 1951, 45) directing attention, thought and action through a varying focus gain. The interactively sketched force field maps for the ten entrepreneurial projects are presented in Figures 41-43. Several observations can be made.

First of all, the demarcation line between the internal and external forces was *not stable* over the lifetime of the projects. Changes could occur in both directions within the same project.

Secondly, significant changes in the dominance of the internal and external forces were attached to specific and identifiable *bifurcation points*. The bifurcation points could be related to the economic (anticipation or realization of the detrimental effects of EU membership, start-up or closure of another project, empty business site), personal (sickness, marriage, a child) or social-institutional (others’ expectations, local development project, end of the educational contract) forces. The three entrepreneurs were able to identify several specific forces maintaining the force fields or changing them in the bifurcation points. In the bifurcation points, some of the forces accentuated and changed the demarcation line between the internal and external forces. Out of the 91 identified forces related to the 10 projects, 43 (47 %) were considered internal and 48 (53 %) external to the entrepreneurial agency. Out of the 48 external forces, 29 were related to the

economic agency, 5 were related to the personal agency and 14 were related to the institutional agency. There were both internal and external forces affecting every project (Figures 41-43).

Thirdly, in the six closed projects the dominance of the external forces increased towards the end of the project. *At the end, the power of the internal entrepreneurial agency was negligible.* The internal aspirations energizing the entrepreneurial agency had run out of steam (e.g. getting bored or sick), the project approached the end of its economic life cycle looking for further investment with uncertain prospects (sunk costs), a satisficing “fit” was not achieved or had to be given up due to sickness. All the closed projects were profitable in economic terms. The increased dominance of the external forces was like a cumulative stress increasing towards the end. Interestingly, all the projects which continued upon succession of the family business were closed (Figures 41-43).

It was possible to identify internal and external force fields and specific bifurcation points related to the entrepreneurial projects. Rather than some sort of “point optimization” or “profit maximization” proposed by conventional economic theory, the entrepreneurial projects introducing situational novelty with personal, economic and social risk were driven by internal and external power fields, which were sometimes a bit fuzzy. Significant changes in the power fields were related to identifiable bifurcation points. The anticipation of the detrimental effects of EU membership on the sector could take an increasing share of the focus. Getting married could set up a team strengthening the entrepreneurial agency, which may have revitalized the focus on the development of the existing project.

The broad power fields were comprised of and maintained by several more specific forces, which were subject to change over time. *The changing frontier directed the thought and the action with varying power and specificity, observable in the introduction, management and closure of the entrepreneurial projects.* This “performance” could be measured by more specific measures if desired (survival of the project, financial records, resources exchanged, aspirations met, services produced, etc.), and from several points of observation (the project, the entrepreneur owning the project(s), the firm used as a platform, the environment served).

Q3_s: Is the varying dominance of the behavioural systems of generation, selection and coherence by the entrepreneurial agency related to the bifurcation points?

Similar force field maps were interactively sketched for the three *behavioural forces* relating to the focus gain of the entrepreneurial agency. The generative forces were related to the creation of new alternatives, ideas and models, expanding the domain of “possible” (system of generation); the selective forces were related to the reduction of the alternatives, ideas and models, narrowing the domain of “possible” (system of selection); and the coherence-driving forces were related to the maintenance of the existing and conformity of thought and action to preserve various “fits” (system of coherence). Several interesting observations can be made on the dominance and role of these systemic forces.

Firstly, the demarcation line between the three behavioural forces was *not stable* over the lifetime of the projects. Any of the three forces could dominate. In nine out of the ten projects, the dominant behavioural force changed during the

project.

Secondly, significant changes in the dominance of the behavioural forces were attached to specific and identifiable *bifurcation points*. Some of the bifurcation points were related to the focus gain by the system of generation, other bifurcation points were related to the focus gain by the system of selection, and still other bifurcation points were related to the focus gain by the system of coherence of the entrepreneurial agency. The three entrepreneurs were able to identify several more specific topics for which each behavioural system was “used” for. Out of the 76 identified topics, 27 (36 %) were related to the dominance of the system of generation (e.g. development of the business model, planning of the product or service portfolio), 31 (41 %) to the dominance of the system of selection (e.g. sickness, child, technological choice, competitor) and 18 (23 %) to the dominance of the system of coherence (e.g. respect of family tradition or social pressure, maintenance of the stock or business facilities, maintaining a business option for the children). In this context, the focus gain by the system of generation was related especially to economic issues (68 % of the identified topics within this system). The focus gain by the system of selection was related especially to both economic and personal issues (40 % and 37 % of the identified topics within this system, respectively). The focus gain by the system of coherence was related to both the social and institutional issues (50 %). *Each behavioural system of the entrepreneurial agency tended to be used for making sense of and coping with specific kinds of topics.* This tendency was not exclusive, because the force field of each system could become strengthened and maintained by many kinds of topics. Furthermore, all three behavioural forces were related to every project (Figures 41-43).

Thirdly, the dominance of the system of coherence tended to increase after the start-up of the project, and declined when approaching the end of the project. *The early and the final stages of the projects were generally characterized by the dominance of the generative and selective forces. Also the bifurcation points during the lifetime of the projects were related to the varying dominance of the systems of generation and selection.* As long as there was an appropriate “fit” between the constituencies of the project, the forces guiding the entrepreneurial agency were mostly related to the maintenance of it. If this was not the case, the generative and selective forces could alternate cyclically to iterate such. Some of the projects were strongly dominated by such alternation, leaving only marginal powers for the system of coherence (e.g. project #3 in case 1, projects #1 and #2 in case 2, and project #4 in case 3). The “waves” comprised by alternating the generative and selective forces could be identified in most of the projects. The bifurcation point leading to changed dominance could be “rational” and anticipated or very much unexpected:

“The EU membership in 1995 created new fears and threats for the business. And that was the start of the new business to get something new to replace the losses and to create value added. That was the start ... At the end, it felt more as a possibility, or it changed into such.” (System of generation; Project #1-2; 10”, 25”)

“When the child was born, we got a ‘development manager’ for the firm. We started to close down things ... it became more business oriented ... it [the newborn child] affected on entrepreneurship a hundred times more than getting married ... it clearly increased the selective forces.” (System of selection; Projects #2-2 & #2-3; 1”05”)

Fourthly, a very similar force resulted in the dominance of different behavioural forces by different entrepreneurial agencies. For example, a significant investment causing sunk costs for the agency could be a selective force (asking to concentrate on this business only) or a coherence-driving force (maintaining this business). Institutionalized external expectation was a strong force, but it could also operate as a selective force (asking to be enthusiastic about this business only) or coherence-driving force (asking to continue the specific business, even in a specific way). This was due to the genuine heterogeneity of the entrepreneurial agencies. *This also explains why universal settings or forces may produce a variety of entrepreneurial projects characterizing the small firm world.* The entrepreneurs illustrate the issue:

"I was so enthusiastic about the business ... I was so interested about it. But when I see it now, it was complete – self-deception is a wrong word – it was not my own life but life into which someone else had placed me. But on the other hand it was true, because I felt it to be true by then ... I experienced the specific business as the most important thing. Then I thought there are two things I will never do: the other is tourism¹⁴⁰ and the other is organic farming. I was so externally driven to be enthusiastic about that current specific business. The model which I got from the outside, from the family or from the surrounding society selected out everything else, it was black-and-white ... The ideas came from outside ... and what came was all related to the current business." (System of selection; Project #2-1; 27", 32")

"There were many positive factors in the surrounding ... there have been times when we have run out of money and thought this is over now, and we were unable to pay the rent, and we had a meeting to close down the business. When this information spreads, a very strong public opinion arises in the village that this is completely out of the question and anything else may be done, but this business will not be closed ... They have been willing for an unpaid labour, if needed, to prevent closing down the business ... Then we walk to the bank manager to ask for a rent discount, because we would like to stop but they won't let us to do it ... The social impact of this business has been significant ... it is so important place for the people, especially for the old men, who come there every morning. If they are in a bad condition, they will be more or less carried in, or they retrieve each other to have coffee together. If someone is not coming, they start worrying about what has happened or if he has died. The troupes are inspected ... It is difficult to consider it as business, but it is just how it works ... It keeps up the pressure for this business to exist" (System of coherence; Project #3-2, 32", 42")

It seemed possible to identify generative, selective and coherence-driving force fields related to the projects. The entrepreneurial projects were driven by three behavioural power fields. Significant changes in these power fields were related to identifiable bifurcation points. The behavioural power fields were maintained by several more specific forces, subject to change over time. The changing frontiers directed the thought and action with varying power and specificity, observable in the introduction, management and closure of the entrepreneurial projects.

¹⁴⁰ Six years later, the entrepreneur ventured into the area of farm tourism (Project #2-2).

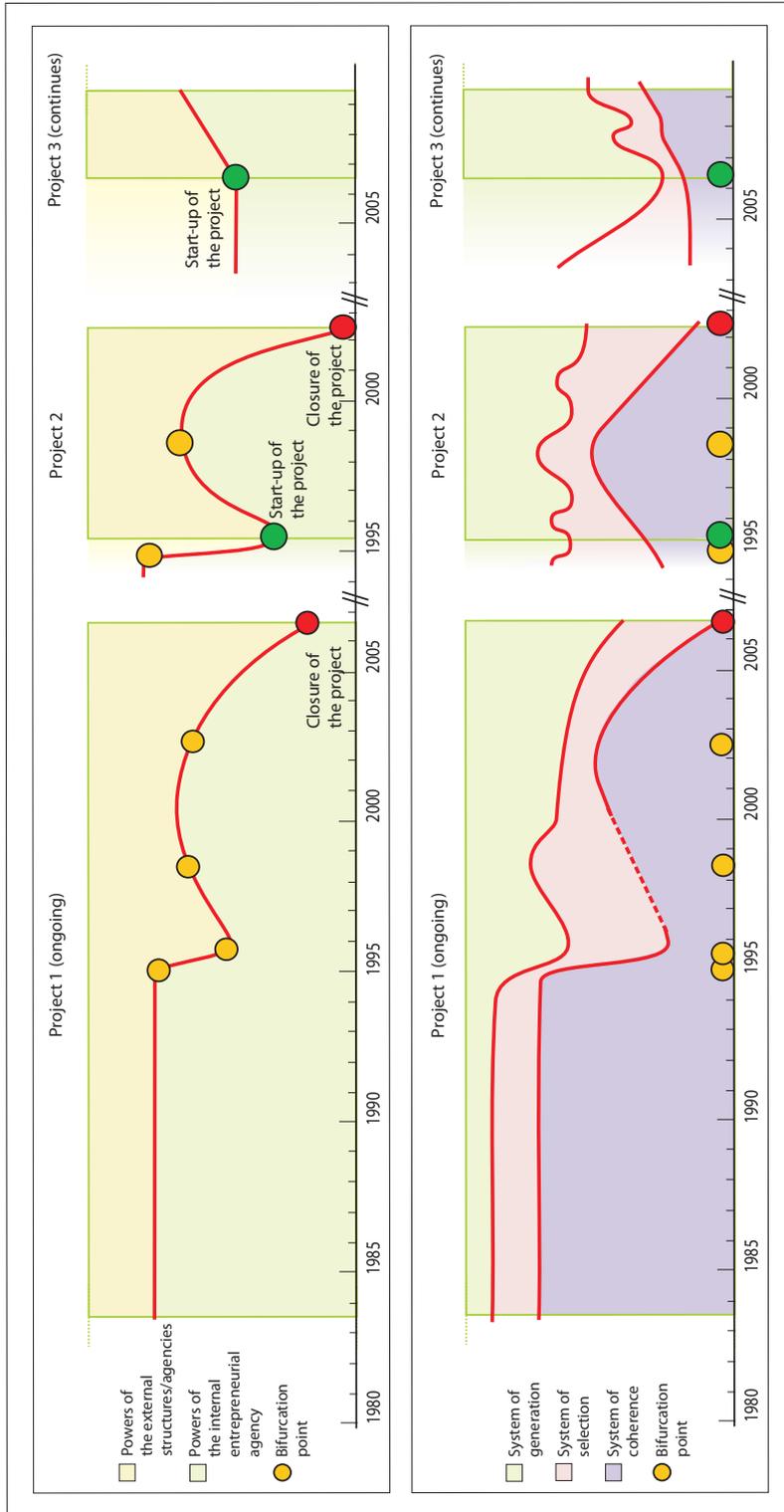


FIGURE 41 Power Fields of the Internal and External Agencies and Behavioural Systems, and the Bifurcation Points in Case 1

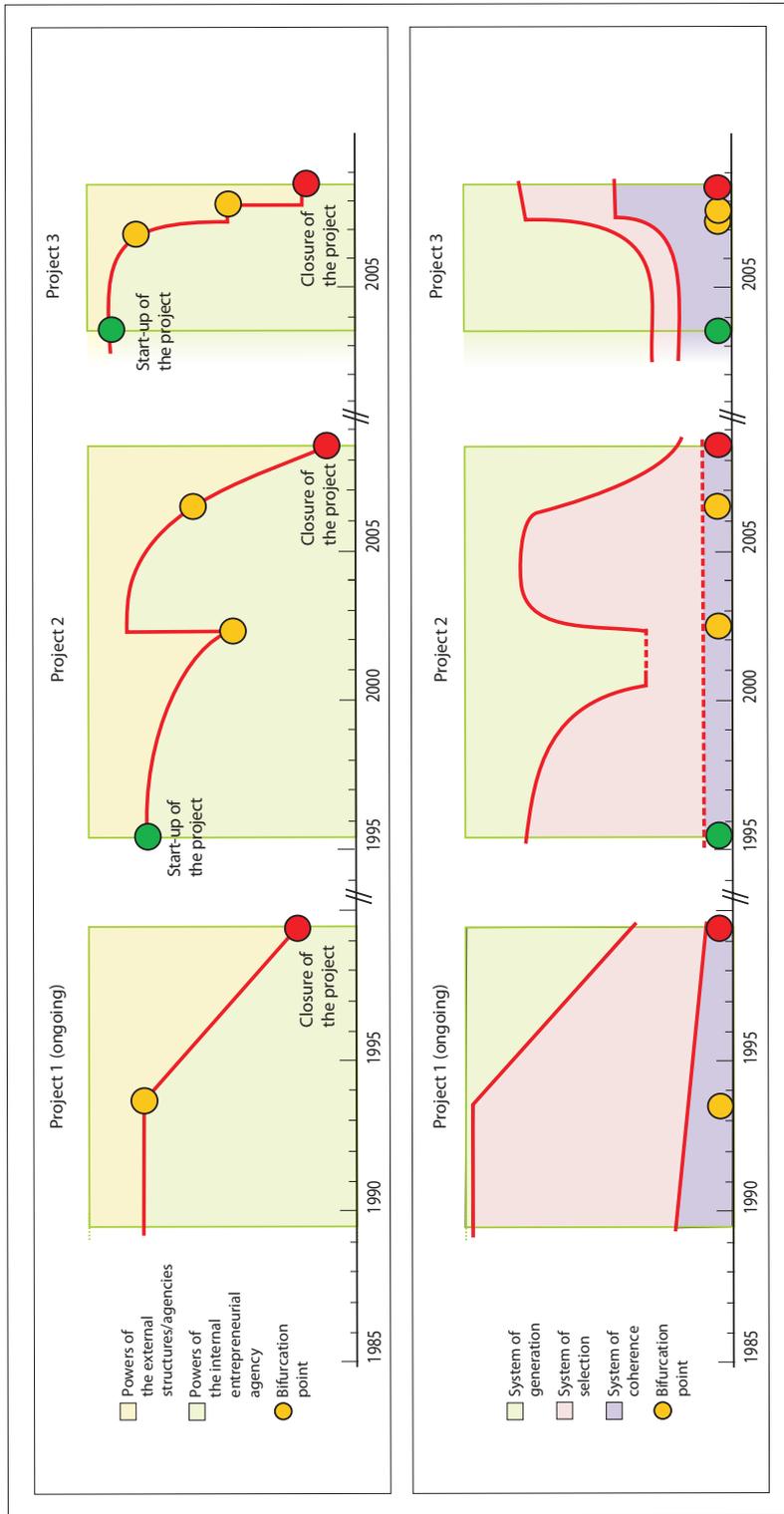


FIGURE 42 Power Fields of the Internal and External Agencies and Behavioural Systems, and the Bifurcation Points in Case 2

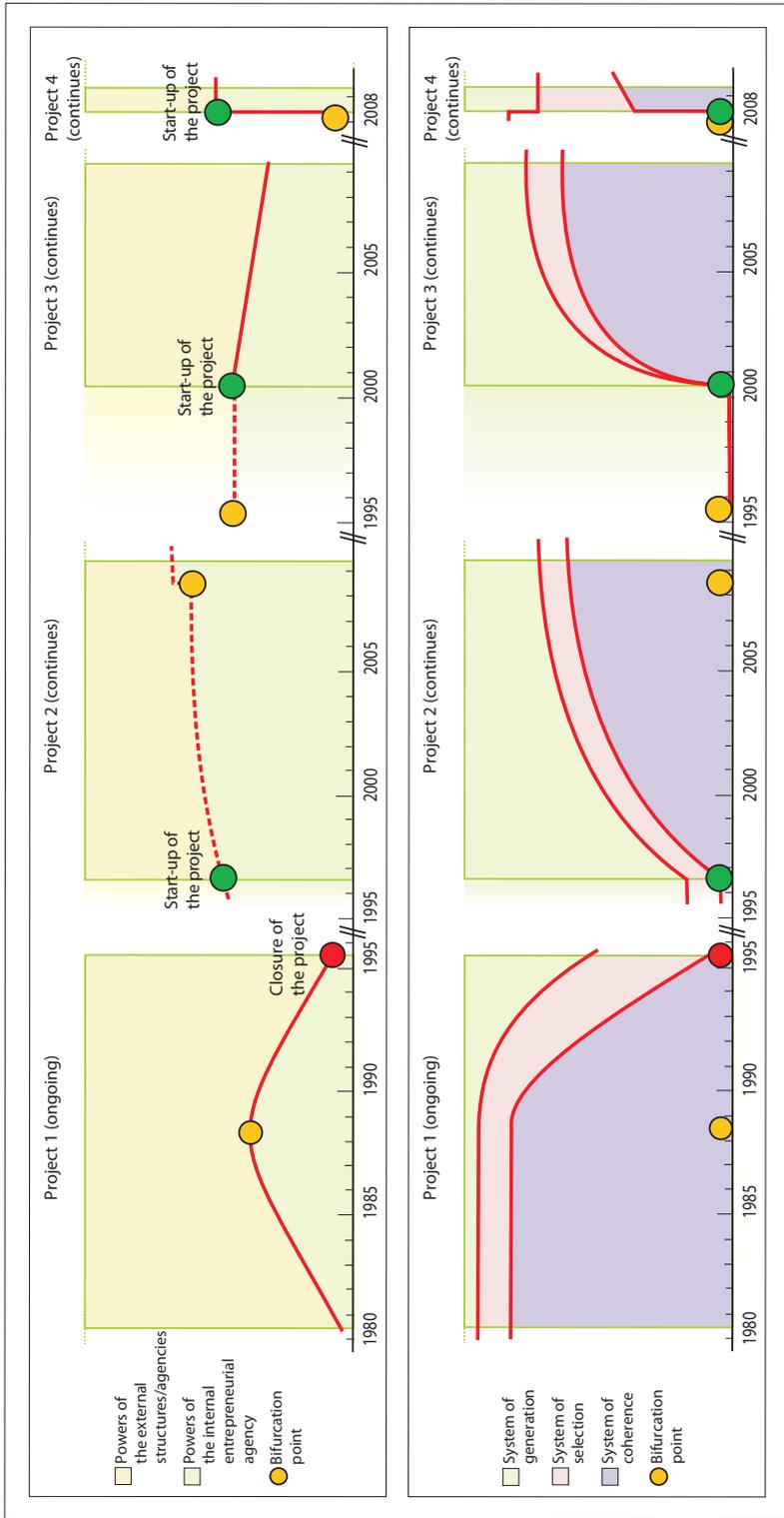


FIGURE 43 Power Fields of the Internal and External Agencies and Behavioural Systems, and the Bifurcation Points in Case 3

7.5 Discussion

The metatheory proposed to focus on the interplay of the “internal” and “external” forces affecting the entrepreneurial agency. Heterogeneity appeared to be the most fundamental feature of this base of agentic capacity in this context. The projects were introduced and closed for a wide variety of reasons. A rather similar force could direct the agencies in a different way. The internal and external forces varied between the projects and within them. Their dominance tended to change significantly in identifiable bifurcation points related to accentuated claims by some personal, economic or social-institutional agency. The changed dominance of the generative, selective and coherence-driving behavioural systems of the entrepreneurial agency was also related to the bifurcation points. The entrepreneurial agency was energized by diverse aspirations and focused sequentially on different aspects to make sense of them or to cope with them. The entrepreneurial agency and the external structures or agencies had an ongoing dialogue, leading to a varying focus gain. The internal and external influences affected every project and all three behavioural forces by the entrepreneurial agency were active in every project.

The analytical structure provided by the metatheory aided in identifying and specifying the entrepreneurial projects and the forces affecting them. Force field analysis is presented as an example of the methodological development toward which the metatheory could encourage students. The analysis deals with rather abstract and synthesized issues, but such is required if broad coverage of forces is to become besieged. Indeed, *the dialogue between the internal and external forces, as well as the behavioural forces directing the entrepreneurial agency, formed identifiable “force fields”*. It was possible to identify them, their changes, their contents and their effects. In this way, it was possible to capture much of the multidimensionality, simultaneity and dynamics of this world. The entrepreneurial agencies were confronted with many forces simultaneously and sequentially as a frontier, beyond any static, precise and mechanical “point optimization” as prescribed by conventional economic theory (e.g. Jehle & Reny 2001, 138; Samuelson 1947, 77). Also the “resource based view”, connecting possession (or lack) of specific resources with specific performance (e.g. Rantamäki-Lahtinen 2009, 88; Wernerfelt 1984, 179), could have left much of the dynamics unobserved. This kind of history-friendly analysis (Malerba et al. 2001, 636) could open up a multitude of varying causal forces and behavioural dynamics. Sharing the intensive strive for equilibrium analysis – found even in “behavioural economics” (cf. Fudenberg 2006, 701-703) – could have resulted in the inquiry being in disarray in this world, where equilibrium and optimality play no such role. The dominance and sequence of the various forces may, however, afford and constrain the entrepreneurial agency to take sharp and identifiable action with specific performance effects of starting, maintaining, changing or closing the project(s). The entrepreneurial agency was responsive to many other forces beyond market prices, if such even existed for the project before they were enacted. *This illustrates how applying dynamic force field analysis, backed up by the interpretative “hard core” of the metatheory, might be useful in accumulating coherent understandings of the small firm dynamics.*

In general, small firm dynamics is energized by the entrepreneurial agency. Due to diverse “structural inheritances”, the entrepreneurial agencies and their environments are heterogenous. *Rather universal forces affect each agency in a particular way.* The demarcation line between the internal and the external forces take different positions and different paths, and activate the internal behavioural systems by the entrepreneurial agency in a different way. A rather similar force may be affording or contraining. Very incidental factors may activate the agency in a specific way. *“History is not inexorable; what happened did not have to happen ... and the outcomes we observe are indeterminate ex ante and depend a great deal on accidental events”* (Mokyr 2005, 212-213). Consequently, a diversity of entrepreneurial projects will emerge with a varying outcomes and “development sequences” (Dopfer 2001, 173). Heterogeneity has an intimate relationship with innovations (e.g. Knott 2003, 703). The outcomes of this adaptive fabric may be observed as “performance” by various points of observation.

Regarding the explanatory powers of the findings, establishment and maintenance of a “satisfactory fit” between the internal and external constituencies, allowing exchange of aspirations for resources by the project, was enough for the project to exist in this context. Establishment and maintenance of such “fits” required iteration guided by the generative and selective forces. The coherence-driving forces tended to be rather stable and secondary voices, but the generative and selective forces tended to alternate sequentially during the lifetime of the projects.

Regarding the predictive powers of the findings, the increased dominance of the external powers predicted closure of the project. Then, a “satisfactory” fit (cf. Simon 1955, 104-105) was not initially found or such was lost for various reasons: the environment changed, the cue was wrong, someone became sick, the entrepreneurial agency run out of steam, etc. There appeared to be also some cumulative “structural inheritance” related to the capacity of the entrepreneurial agency to resist the external social-institutional pressures, to take up the chances and to manage the entrepreneurial projects, lowering threshold to introduce subsequent projects. This capacity was emphasized by the entrepreneurs, while analyzing their last project:

“You stand straight and you self know what you think and let the others talk. It will level out.” (Project 3; 50”)

“We had an empty business estate ... the stock was there ... the person [withdrawing from the business] proposed me to try it out. Then I tried it out, and surprisingly it was it was quite nice. I could never imagine myself to have anything to do with such a thing. I had absolutely no desire or even the fantest idea of doing a thing like that ... It includes an element which had been completely lacking in my life before: visuality ... It has been a completely new world, and for that reason it has been of so much fun.” (Project 10; 1”11”)

“The picture of being an entrepreneur on the countryside, that you live there and do something ... The businesses may vary ... The understanding that now we are in the beginning and changes may take place ... some sort of learning ... the creation of alternatives has become a continuous and organized habit ... be ready for closing

down and abandoning what has been done and search for something new.” (Project 6; 1”02”)

Some scholars could label this as “entrepreneurial learning” (e.g. Cope & Watts 2000, 115-116; O’Driscoll & Rizzo 1996, 37-28; Politis 2005, 415). Indeed, in getting a grasp on these kinds of aspects of the small firm world, the entrepreneurial project was a more useful object of inquiry than the mythical entrepreneur or the instrumental small firm. Besides the learning and competence studies, many other fields host ideas and empirical findings resembling the substance of this case, but their reflection is out of the scope of this illustrative example.

Different persons in very different positions may introduce entrepreneurial projects and the small firms are just business vehicles, but the small firm world is actually changed by the *projects*. One may not predict the details of the emerging projects due to underlying heterogeneity and multidimensionality of “fits”. This is how the kaleidoscopic of the small firm world evolves. Some context may, however, accompany specific dynamics related to the projects and probability of some broad paths they could take. In this context, four out of the seven projects introduced by the entrepreneurs during the last two decades were somehow related to the shock caused by the entry of Finland to the EU. However, the degree of universality in the dialogue between the internal and the external forces and among the behavioural forces affecting these agencies and their projects could be different in another context.

8 Using the Metatheory with the Temporality Lens: The Enabling and Constraining Past Behind the Intentions of New Entrepreneurial Projects

*"With a fragile boat are we rowing,
and the roaring waves won't cease;
in distant woods are we going,
and can not find any peace."*

- Eino Leino: Rauhattoman rukous [excerpt translated by the author]

8.1 Introduction

For this last illustrative case, the metatheory could set scene as follows. *No one starts an entrepreneurial project from a blank canvas.* One's history and the history of the outside world provide a rich pool for many kinds of observations, suggestions or claims on what could or should be done. Depending on the contents of these various barrels of aspirations, resources and models of behaviours, a specific course of action may take a focus gain in several ways. Such focus may open up specific paths toward the uncertainties of the future and to meeting some specific sets of aspirations. The future may be confronted with "closed eyes" by bold trials, but it is quite often that the past will inform the trial, which is always partly blind in the long run, since the future may not be known.

The phenomenon we are dealing with is the *path-dependency* of action. This does not mean absolute determinism of the action, but impact of the causal powers of the continuously accumulating "structural inheritance" in a dynamic setting. Such inheritance accumulates not only within the entrepreneurial agency but also within other agencies. The social actors are embedded in historical time. In every consequent moment of time, the situation is different – though not observed to be such in every detail by the actors. The next moment, the history includes also this step, with new potentials for the next step. The step ahead becomes refined due to imagining and developing, imitating and modifying, speculating and comparing, judging and refining intentions for new projects by the entrepreneurial agency.

Intentions may bridge causal powers of the past with aspirations for the future through multidimensional judgement, occurring in the present. As soon as the intention is clear, it may direct thoughts and actions (e.g. search), which further paves the way towards a project, subject to countervailing factors. The distillation process of the intentions and their realization as entrepreneurial projects is of focal importance for the dynamics of the small firm world. The evolution has the potential to reward for being different, which is why it is worth of pursuing.

The role of path-dependency is investigated by a sample of farm-based entrepreneurs in Finland based on the metatheory's advice. The intentions under scrutiny concern the initiation of new entrepreneurial projects in non-agricultural businesses. Since the respondents are agricultural entrepreneurs, they already possess the entrepreneurial agency. Several interesting questions arise. First of all, how is an active entrepreneurial agency advised and subjected by the various elements of the "structural inheritance"? Does this indicate path-dependency? The metatheory, including historical time in the accumulation of agentic capacity, would suggest that *probabilistic path-dependency would manifest itself* between several elements (rather than a single element) of the "structural inheritance" and intentions for new entrepreneurial projects.

Secondly, does the predictive value of the various elements of the "structural inheritance" depend on their *evolutionary relevance* for the specific course of action? Evolution may store knowledge in diverse places, objects and forms. These storages may be accessed and acquired through various forms of interaction (education, experience, exchange of information). Since introducing an entrepreneurial project means committing to directional and uncertain paths, the knowledge (e.g. preliminary cues, sphere of habitual action) related to that specific path may have evolutionary value. The possession of these kinds of *storages with path-relevant knowledge* would suggest a higher probability to introduce projects related to that specific path. Here this relationship is captured at the intention stage. Since such an intention is still subject to incidental focus gain, the relationship is probabilistic.

One may further speculate that some elements of the past could afford and others could constrain the action, both having the potential to envisage commitment to a specific course of action. One may not choose "an optimal history" for "a perfect future": randomness plays a role and the full rationality postulate is obsolete. The affording elements may have the functionality of resources ("fuel") and the constraining elements may have the functionality of sunk costs ("glue"). Could such be distinguished in this context? And furthermore, is a more distant path – as compared to the current one – related to a different "structural inheritance" than a more proximate one? Finally, how robust is the predictive value of the various elements of the "structural inheritance" in each case? The research setting to analyze these issues is illustrated in Figure 44.

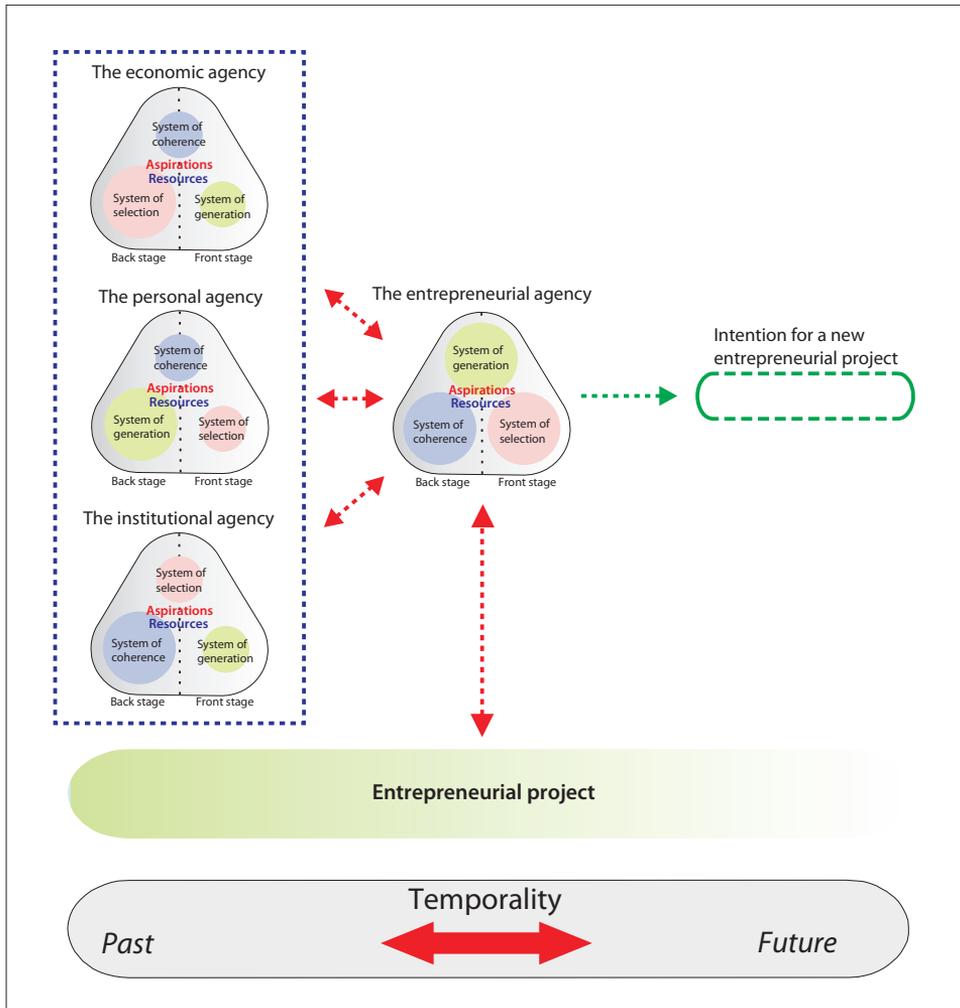


FIGURE 44 Research Framework for Studying Temporality Dynamics

8.2 Research Question

Based on the initial advice provided by the metatheory, the following research question has been created:

Q1: Does the “structural inheritance” affect intentions for entrepreneurial projects through several contingencies indicating predictive path-dependency, which is narrower for the more distant business paths?

8.3 Data and Methods

The act of research is a social enterprise, subject to the same limitations, mistakes and deficiencies as any other social activity. It is not uncommon for students to work with incomplete data (e.g. business registers, concerted surveys) not originally planned, designed or collected to meet the demands of the specific research task. This case illustrates how the temporality lens may be used to make use of such data to uncover interesting aspects of path-dependency in order to generate progressive understanding and contextual explanations of the issue.

The data was comprised using a representative sample of Finnish commercial farms with at least 5 ha of field, excluding most hobby farms and home gardens. The data was obtained by sending a postal questionnaire to farmers. The results were collected by telephone. The temporality lens was focused on the intention to start a non-agricultural entrepreneurial project and on the antecedents of this intention. To capture “structural inheritance” with potential causal powers for the commitment to such a path, a limited number of variables – allowed by the main survey – were designed to reflect depositories of knowledge external to the agricultural business, in which all respondents had experience. These variables included various indicators of non-agricultural education and experience. In addition, several aspects of the current business and some control variables (e.g. age, location) were included in the questionnaire. A complete list of the variables is given in Annex 3. To capture the internal dynamics of the entrepreneurial agency – considered a family team¹⁴¹ in this context – most variables were specified separately for the prime entrepreneur, for the spouse and for the child (usually the potential successor) as long as they were living on the farm.

For this sub-questionnaire of a more extensive survey, 810 responses were received, out of which 711 were valid for analysis as they included data of all relevant variables. The final sample was made up of 1.2 % of the population and it was reasonably unbiased regarding farm type and size, age of the farmer and region, with a slight bias toward larger farms and older farmers. Since global forecasts are not aimed for, this gives a reliable basis for studying the phenomenon of path-dependency within this population of small firms. It was not possible to observe the risk criterion for the entrepreneurial project explicitly, but the novelty criterion was satisfied.

The relationship between the various elements of the “structural inheritance” and the intentions for the non-agricultural entrepreneurial projects was analyzed by means of simple tools relevant to categorical data analysis: contingency tables with chi-squared tests and logistic regression analysis.

8.4 Results

Q1: Does the “structural inheritance” affect intentions for entrepreneurial projects through several contingencies indicating predictive path-dependency, which is narrower for the more distant business paths?

Multidimensional path-dependency

Within the 711 responses, there were 57 cases (8.0 %) where some member of the entrepreneurial team (the farmer, the spouse, the child) had an intention to start a non-agricultural entrepreneurial project within next five years. About 2/3 of these were intentions of the prime entrepreneur and 1/3 were intentions of other family members. These intentions were subjected to analysis to uncover their antecedents. The commitment to non-agricultural business would take place through the introduction of an entrepreneurial project. All the teams had prior business experience with an agricultural project, some also with a non-agricultural project, besides which they had varying “structural inheritances” regarding the life cycle stage, location, education and professional experience. These could carry diverse causal powers for the commitment. Our main interest was to analyze though which links does the past condition the future and whether this indicates path-dependency in business action. The “structural inheritance” was featured by 29 variables, which were considered to have the potential to influence commitment levels to non-agricultural business paths. The 29 variables were tested for their independence using Pearson’s phi-square test (Table 7).

A number of variables relating to the non-agricultural path were related to the intention of a consequent commitment. Being involved in and familiar with non-agricultural business (*turnover exists*) was related to the existence of the intention to start up subsequent non-agricultural projects. If the family was dependent on the *non-agricultural business income*, the intention to start up subsequent non-agricultural projects was more common. Furthermore, opting for a growth *strategy* (rather than no change or decline/closure) was associated with having a non-agricultural start-up intention. All these relationships indicated that in this farm family business, the path chosen included some “glue” for the subsequent business action. *The directional futures imperative and the strategy imperative played a role, and the system of coherence was active.*

The possession of several *non-agricultural professions* by the farmer was strongly associated with the intention to start up a non-agricultural entrepreneurial project. Possession of “non-agricultural” knowledge seemed to favour strategic choices pointing in the non-agricultural direction. A similar relationship applied to the non-agricultural profession of the spouse, to the *non-agricultural education* of the farmer or the spouse, and to the *non-agricultural work experience* by the farmer or the spouse. All these visits to the world outside the farm had opened up some views and ideas of a new “adaptive kingdom”; they possibly granted the agents with some prototypic projects and expanded their domain of habitual thought and action. *The system of generation had stored this knowledge for the systems of selection to work at a later stage in favour of these knowledge depositories.* These knowledge stores could be described as “resources”. Interestingly, a *short period* (less than 3 years) of

work experience seemed to be associated with the intention of a non-agricultural project; a longer period could have “glued” one to that path (i.e., salaried work rather than non-agricultural business).

Furthermore, the *non-agricultural business experience* of the farmer, of the spouse or of the child, had a statistically significant relationship with the intention to start up a non-agricultural entrepreneurial project. This indicates strong causal powers of the entrepreneurial “structural inheritance”. Having business experience not only in agricultural business but also in non-agricultural business, granted the agents with a broader experience in establishing and managing multidimensional “fits” related to the projects, and in coping with novelty and risk. Looking at the strength of the relationships, this appeared to be very valuable “structural inheritance” for the subsequent entrepreneurial path, and it was indeed shared within the family as an entrepreneurial team. *The learning and risk imperatives played a role.*

Finally, the *life cycle stage* (age of the farmer) did not have relationship with the start-up intention. General life experience or “wisdom” played no role; only experience which is more specific to the business path. The *type of region* had no significant association with the intention either, despite the commonly recognized differences in the availability of opportunities between the regions of the extensive country with polarized inhabitation. One could have expected that the intentions were more common close to the urban conglomerates. The exposed result could reflect the tendency of the systems of generation, selection and coherence to focus more on the resources “in here” than on the opportunities “out there” in organizing how aspirations became translated into practical action within the regional frame. The “structural inheritance” related to *farm size* played no role behind the intentions either, indicating that the dynamics were not sensitive to the volume of agricultural business. One may engage with the non-agricultural business path with diverse scales of the agricultural business. All these findings are based on statistics reported in Table 7.

TABLE 7 Indicators of “Structural Inheritance” and Their Relationship with the Start-up Intention for a Non-Agricultural Entrepreneurial Project by the Entrepreneurial Team of Finnish Family Farms

Indicator of the “Structural Inheritance”	Statistical Relationship with the Start-Up Intention			Description of the Relationship: Intention Most Common When...
	χ^2	df	p ^{*)}	
Life-cycle stage:				
Age, farmer	0.677	1	0.411	
Region:				
Region type	5.270	3	0.153	
Current Farm Business and Income Sources:				
Type of farm business	1.546	2	0.462	
Diversification	0.018	1	0.894	
Farm size (field area)	0.421	1	0.516	
Turnover in agric. business	0.000	1	0.994	
Turnover in forestry business	0.900	1	0.343	
Turnover in non-agr. business	7.134	1	0.008**	Turnover above average
Agric. business income, farmer	1.669	2	0.434	
Non-agr. business income, family	18.342	2	0.000***	Exists; > 50 % of net income
Strategy:				
Farm business strategy	7.364	2	0.025*	Growth strategy
Non-Agricultural Education and Non-Agricultural Professional Experience:				
One profession, farmer	3.031	1	0.082	
One profession, spouse	5.652	1	0.017*	Exists
One profession, child	2.584	1	0.108	
Several professions, farmer	28.381	1	0.000***	Exist
Several professions, spouse	0.110	1	0.740	
Several professions, child	0.263	1	0.608	
Education, farmer	5.564	1	0.018*	Exists
Education, spouse	7.469	1	0.006**	Exists
Education, child	2.255	1	0.133	
Work experience, sector, farmer	6.593	2	0.037*	Exists; productive activities
Work experience, sector, spouse	9.479	2	0.009**	Exists; productive activities
Work experience, sector, child	1.427	2	0.490	
Work experience, length, farmer	10.737	2	0.005**	Exists; less than 3 years
Work experience, length, spouse	7.178	2	0.028*	Exists; less than 3 years
Work experience, length, child	10.457	2	0.005**	Exists; less than 3 years
Non-Agricultural Business Experience:				
Experience, farmer	34.785	1	0.000***	Exists
Experience, spouse	22.533	1	0.000***	Exists
Experience, child	4.197	1	0.040*	Exists

*) Statistical significance of the test: *** p < 0.001, ** p < 0.01, * p < 0.05

The results discussed above already provided some indication for the predictive value of the various elements of the “structural inheritance” for the business intentions, because path-dependency was observed to exist to some degree. Some more specific indication of the magnitude of the impact was explored by means of logistic regression analysis, selecting effective predictors for the intention (Table 8).

The strongest predictors for the intention were *non-agricultural business experience* of the farmer, possession of *several non-agricultural professions* by the farmer, *high dependence on the non-agricultural business income* by the family, and *short non-agricultural work experience* of the child. The model fit seemed acceptable, why it was possible to evaluate individual predictors. The odds of having the intention were 3.4 times as large for farmers with non-agricultural business experience as for farmers without non-agricultural experience. However, the strongest single predictor was possession of several non-agricultural professions by the farmer. Also non-agricultural work-experience of the child was a strong predictor of the intention, though not statistically as significant as the previous ones. Besides providing the agency with an additional knowledge base, it also could be a cue to the future prospects for the continuation of the agency. Also dependence on non-agricultural income was a statistically significant predictor, but weaker “glue” for the path.

This set of predictors for the intentions confirmed the important role, which the path-relevant knowledge depositories within the “structural inheritance” played for the subsequent thought and action. The odds of having the intention were extremely low (0.03) when the “structural inheritance” exhibited non-existence of the predictors, as indicated by the constant capturing of the impact of the reference categories.

Returning to the research question under discussion, it became evident that the “structural inheritance” affected subsequent intentions through several interfaces and contingencies. There were not only “profit” drivers behind the business intentions. The path-dependency was multidimensional. Some of the elements “glued” the entrepreneurial agency to the committed course of action, other elements afforded taking another course. In the statistical sense, there were some effective predictors of the intention. The specific elements of the past, which afforded and constrained the choices for the future in this context, may not be relevant in another context.

TABLE 8 Predictors of the Start-up Intention for a Non-Agricultural Entrepreneurial Project by the Entrepreneurial Team of the Finnish Family Farms in Logistic Regression Analysis⁾

Dependent variable:	1= Intention exists, 0 = No intention		
Predictors:	β	Wald	Odds Ratio [Exp(β)]
Non-agr. business experience, farmer	1.229	13.486***	3.419
Several non-agr. professions, farmer	1.497	14.426***	4.469
Non-Agricultural business income		8.156*	
Less than 50 % of net family income	-0.127	0.065	0.880
More more than 50 % of net family income	0.809	5.556*	2.246
Non-agricultural work experience, child		6.736*	
Less than 3 years	1.317	6.290*	3.732
More than 3 years	0.513	0.747	1.670
Constant	-3.502	171.089***	0.030
Model:	Model $X^2 = 54.905$, $df = 6$, $p < 0.001$		
	-2 log likelihood = 342.091		
	Nagelkerke $R^2 = 0.174$, Cox & Snell $R^2 = 0.074$		
	Observations $n = 711$		

⁾ Forward stepwise method (Likelihood Ratio); $p_{\text{entry}} 0.05$, $p_{\text{removal}} 0.10$; reference category last (in these cases = no). Statistical significance of parameters: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Narrower path-dependency for more distant paths

Some of the intentions were related to an entrepreneurial project having rather close links with the farm: farm tourism, food or timber processing, etc. To analyze the strength of the “glue” set by the “structural inheritance” in maintaining path-dependency, the intention to start a “distant”, off-farm non-agricultural entrepreneurial project was studied separately. There were 24 such cases in the data. This sharpened the path for the projects. Was the “structural inheritance” related through similar interfaces with the intention to start up “proximate” and “distant” projects? The results are given in Table 9.

The majority of the statistically significant relationships remained more or less unchanged. However, what was associated differently with this more distant intention as compared to the general intention was of interest. The type of the *current farm business* was associated with the intention. Probably the significant sunk costs (personal, economic, social) in animal husbandry formed stronger “glue” than the sunk costs in crop farming, forestry and other sectors, and kept those committed to this business path away from the distant non-agricultural business path. Unlike with the general intention, low *turnover in forestry* was also associated with the distant intention. The existence of *non-agricultural business income* was associated with the distant intention, as it was also with the general intention, but the relationship was strongest when the income share was modest. Farm families with distant business intentions were already heavily involved in the non-agricultural business (*turnover in non-agricultural business* above average),

as were those with the general intention. The interpretation of this slightly different business-related “structural inheritance” was evident: the economic aspirations were not met and this pushed the entrepreneurial agency to take a longer step toward new, more distant non-agricultural projects. *A quantum leap required additional energy, a stronger push.* A specific business strategy no longer played a role.

Regarding the *non-agricultural professional expertise, education and work experience*, the role of the farmer became more pronounced. The profession and work experience of the spouse were no longer associated with the intention, neither was the work experience or business experience of the child. The more distant the step, the more relevant a specific, narrow “structural inheritance” became. There could be less room for internal compensatory or synergetic dynamics within the team comprising the entrepreneurial agency. The demands set out by the project could be more specific, reflected in the narrower range of “structural inheritance” associated with the respective intention. Path-dependency between the “structural inheritance” and the business intention was broader in the vicinity of the agricultural business. When being further away, the past had a sharper voice. As evident, *the intentions to take a more distant business path were driven by slightly different forces (current business, income and strategy) and through a narrower interface than more proximate intentions.* The statistics for these findings are reported in Table 5.

For the more distant intention, the strong predictors were related to the farmer only (Table 10). The role of *non-agricultural business experience* was very pronounced, with the odds of 12.2 for the intention. Also possession of *several non-agricultural professions and non-agricultural work experience in productive activities* were statistically significant predictors, but weaker than the business experience. *All statistically significant predictors appeared to contain “evolutionary relevant” knowledge for finding and maintaining various “fits” related to an entrepreneurial project within that distant business path.*

It should be noted that the inclusion of additional variables would add new interfaces between the “structural inheritance” and the subsequent business intentions – not remove the ones captured by these variables. A broader set of variables might bring in stronger predictors than those which exist within this incomplete set.

TABLE 9 Indicators of "Structural Inheritance" and Their Relationship with the Start-up Intention for a Distant Non-Agricultural Entrepreneurial Project by the Entrepreneurial Team of Finnish Family Farms

Indicator of the "Structural Inheritance"	Statistical Relationship with the Start-Up Intention			Description of the Relationship: Intention Most Common When...
	χ^2	df	p ⁾	
Life-cycle stage:				
Age, farmer	1.872	1	0.171	
Region:				
Region type	1.032	3	0.793	
Current Farm Business and Income Sources:				
Type of farm business	6.308	2	0.043*	Outside animal husbandry
Diversification	1.114	1	0.291	
Farm size (field area)	0.307	1	0.580	
Turnover in agric. business	0.652	1	0.419	
Turnover in forestry business	4.565	1	0.033*	Turnover below average
Turnover in non-agr. business	12.415	1	0.000***	Turnover above average
Agric. business income, farmer	0.298	2	0.861	
Non-agr. business income, family	18.778	2	0.000***	Exists: 1-50 % of net income
Strategy:				
Farm business strategy	1.186	2	0.553	
Non-Agricultural Education and Non-Agricultural Professional Experience:				
One profession, farmer	9.595	1	0.002**	Exists
One profession, spouse	2.765	1	0.096	
One profession, child	0.301	1	0.583	
Several professions, farmer	30.552	1	0.000***	Exist
Several professions, spouse	0.719	1	0.397	
Several professions, child	0.105	1	0.746	
Education, farmer	6.245	1	0.012*	Exists
Education, spouse	5.101	1	0.024*	Exists
Education, child	0.038	1	0.845	
Work experience, sector, farmer	16.844	2	0.000***	Exist; productive activities
Work experience, sector, spouse	2.567	2	0.277	
Work experience, sector, child	0.572	2	0.751	
Work experience, length, farmer	11.812	2	0.003**	Exist; less than 3 years
Work experience, length, spouse	6.129	2	0.047*	Exist; less than 3 years
Work experience, length, child	0.031	2	0.985	
Non-Agricultural Business Experience:				
Experience, farmer	44.219	1	0.000***	Exists
Experience, spouse	11.692	1	0.001**	Exists
Experience, child	0.009	1	0.923	

⁾ Statistical significance of the test: *** p < 0.001, ** p < 0.01, * p < 0.05

TABLE 10 Predictors of the Start-up Intention for a Distant Non-Agricultural Entrepreneurial Project by the Entrepreneurial Team of Finnish Family Farms in Logistic Regression Analysis⁾

Dependent variable:	1= Intention exists, 0 = No intention		
Predictors:	β	Wald	Odds Ratio [Exp(β)]
Non-agr. business experience, farmer	2.499	19.597***	12.175
Several non-agr. professions, farmer	1.445	8.406**	4.240
Non-agricultural work experience, farmer		5.919	
In productive activities	1.258	5.917*	3.518
In other activities	0.557	0.970	1.746
Constant	-5.376	90.828***	0.005
Model:	Model $X^2 = 51.514$, $df = 4$, $p < 0.001$		
	-2 log likelihood = 158.320		
	Nagelkerke $R^2 = 0.273$, Cox & Snell $R^2 = 0.070$		
	Observations $n = 711$		

⁾ Forward stepwise method (Likelihood Ratio); $p_{\text{entry}} 0.05$, $p_{\text{removal}} 0.10$; reference category last (in these cases = no). Statistical significance of parameters: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Regarding the research question, the elements of the “structural inheritance” which had causal powers and predictive ability to commit to distant non-agricultural business paths included knowledge particularly relevant for taking such a path. The “glue” became stronger (attempts were more rare) and more specific (the interface was narrower) when longer deviant steps were aimed for. *History mattered – and it made more specific claims for longer steps in the business path.* Becoming different may be rewarded in an evolutionary process, but it requires energy and is enhanced by a diversified “genetic pool”.

8.4 Discussion

The uniqueness of the entrepreneurial agency lies in its capacity to introduce novel projects capable of changing the world (c.f. Sarason et al. 2010, 242). Farm-based entrepreneurs diversify or renew their business by adding new entrepreneurial projects to their portfolio, or by replacing old ones with the new ones. The agency seems to be partly conditioned by history in this creative action. The business projects of the entrepreneurial agency – comprised by a farm family team – seem to indicate a fair amount of path-dependency. In general, the multidimensional ingredients of the aspirations may become bridged into a coherent and focused intention (cf. Bird 1992, 11), directed towards a specific course of action, and towards a specific evolutionary path. How the aspirations become focused and specified, may be affected by the past through accumulated stress for renewal of the “fits” (cf. Ginsberg 1988, 563; Huff et al. 1992, 58) and through establishment of varying thresholds for the commitment (cf. Gimeno et al. 1997, 774), for example. How tightly these aspirations are bound to a specific course of business action in this particular context, seems to be affected by several affording and constraining

elements of the “structural inheritance” within the family team, comprising the entrepreneurial agency.

Scholars have labelled these factors, conditioning the entrepreneurial agency, with many names, indicating possession or lack of specific resources (Shane & Venkataraman 2000, 222; Westhead et al. 2005, 129), entrepreneurial capital (Erikson 2002, 278; Piazza-Georgi 2002, 463), human capital (Davidsson & Honig 2003, 321), capabilities (Yu 2001c, 194), etc. *Generally, possession of knowledge (information, habits, prototypic projects, etc.) relevant to a specific business path has some predictive value for the introduction of new entrepreneurial projects related to that path.* Again, scholars have labelled these kinds of partly path-dependent renewal processes with many names and varying specifications in different contexts: entrepreneurial strategy (Murray 1984, 1-2), “unstructured” strategic decision process (Mintzberg et al. 1976, 266), entrepreneurial learning (O’Driscoll & Rizzo 1994, 37-38; Politis 2005, 401), strategic learning (Kuwada 1998, 723-724; Mintzberg 2007, 352-356), investment and deployment of absorptive capacity (Cohen & Levinthal 1990, 128), temporal vs. event-based pacing of strategic change (Gersick 1994, 20-41), etc. *In empirical inquiry with any population, the causal power of the past on the subsequent human (entrepreneurial) action is probabilistic, however, since several incidental factors may focus one’s attention to a particular direction.* Humans are not machines and the future is not a given, only the past. Accepting only event-based (past) or outcome-based (future) explanations of entrepreneurship (Van de Ven & Englemen 2004, 343-344) appears naïve. Furthermore, outside the diverse typologies and statistical explanations, part of the factors always remain unobserved due to research design or data limitations (e.g. network relationships in this study; cf. Adaman & Devine 2002, 345). Besides the studies dealing with entrepreneurship, human capital and strategy, many other fields host ideas and empirical findings resembling the substance of this case, but their reflection is beyond the scope of this illustrative example.

Outside the ocean of diverse concepts generated by the scientific enterprise having some relevance for the phenomenon and for the empirical findings, the corridor principle by Ronstadt (1988, 34) is a brilliant conceptual tool for capturing this kind of dynamic more systematically. An ultimate risk imperative is present in getting started with truly novel action, but once such a start is made, a more intimate acquaintance may be formed with the things “behind the door”. Upon arrival to a new “adaptive kingdom”, the uncertainty will have to be coped with in the beginning. Later on, the aspirations, resources and behavioural systems of the entrepreneurial agency may become better adapted to the new world as the “structural inheritance” of the specific agency accumulates. Proximate surroundings become easier to conquer. Distant steps on the evolutionary path are more rare than proximate ones, and they are related to the stronger relationship with the relevant “structural inheritance” (Figure 45). Alternatively, a distant jump implies greater risk along even a more blind trial. The temporality lens has strong links with the changeability link in this phenomenon and context. *Any historical visit to the depositories of knowledge related to the specific path will provide some ingredients for subsequent thought and action: better cues, stronger reliance on the possessed cues (irrespective of their validity), or understanding of the consequences of the validity of cues (correct or failing).*

Generally, the metatheory has guided us in identifying the voices of the past in this inquiry with incomplete data. It has served as a “weak theory” in guiding the research act and helped in agreeing with one useful conceptual model for analyzing this kind of a phenomenon in the small firm world. Here, the corridor principle is presented as an example of the (in this case existing) theoretical development toward which the metatheory could encourage students. The corridor principle deals with rather abstract and synthesized issues, but such is required if broad coverage of forces is to become besieged. In the empirical analysis, some interfaces, through which path-dependency of the business action manifests itself, have been identified by utilizing the temporality lens and interpretative “hard core” of the metatheory. Presumably, these interfaces are relevant only for this particular world in this historical time, and may not have even this degree of universality outside it. In other contexts, other elements of the “structural inheritance” may have causal powers and predictive abilities. We change our explanations and theories on a continuous basis, but it is the understanding of the social world framing them, that matters most. *The important contribution of the findings for the true accumulation of scientific understanding is not comprised by the contents of the individual variables and predictors, but in the following conclusion: the accumulated and somewhat enduring “structural inheritance” may guide the subsequent business path through several path specific and context specific contingencies, besides the incidental factors taking focus gain.*

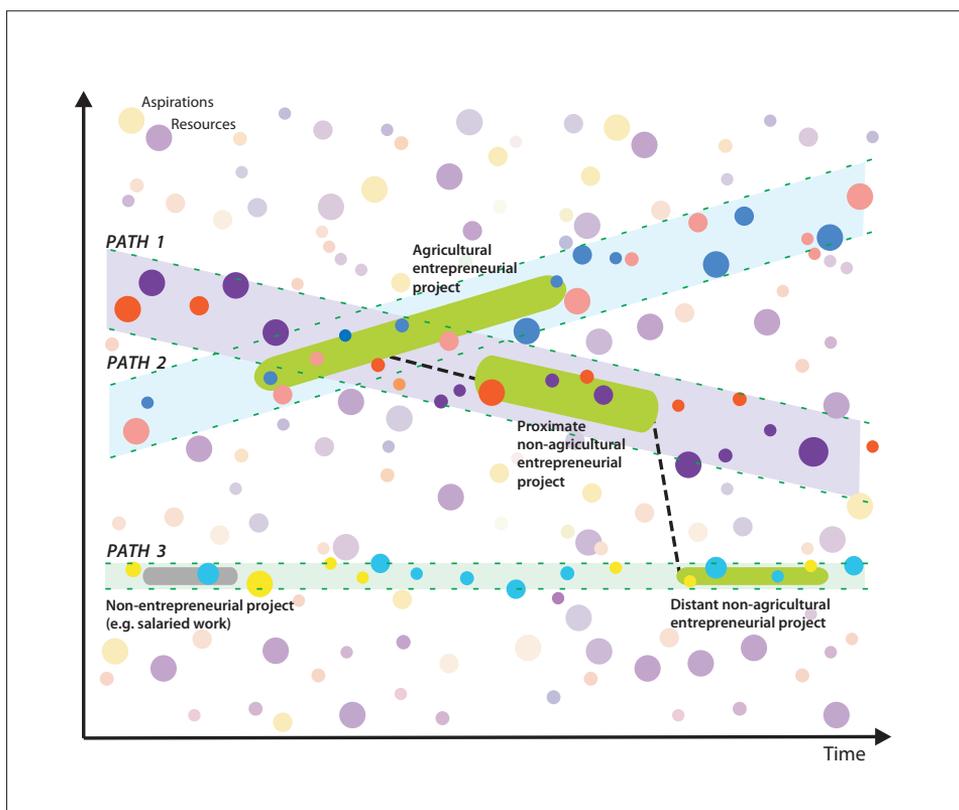


FIGURE 45 Illustration of the Path-Dependency of Business Projects in the Context of the Farm

Part IV

DISCUSSION AND EVALUATION



9 Conclusions, Evaluation and Future Research

*"For those who fancy colouring books
And lots of people do
Here's a new one for you..."*

- Agneta Fältskog: My Colouring Book

9.1 Conclusions

This study aimed to create a useful general analytical framework to investigate the dynamics of the heterogenous small firm world. The concepts of adaptation and performance were used as stepping stones to decide on the appropriate analytical structure. The "intellectual crime" of taking numerous concepts out of their original context was reconciled by the "intellectual benefit" of staying out of a single paradigm prison. Various common theories, concepts, metaphors and research findings and their relevance were evaluated and discussed in capturing the essential elements of the phenomenon. A rather broad field (economics, sociology, psychology, biology, physics, organization science, strategic management, anthropology, dramaturgy and various strands of philosophy) was touched upon in the structuring effort.

It soon became evident that it was not possible to capture the dynamics and the heterogeneity in a way that was at the same time simple, general and accurate without making significant intellectual sacrifices by "black-boxing" or making counterproductive *á priori* conventions. The solution was sought in "grey-boxing", in finding universals and metaconjectures that could bridge diverse views and forces and be specified in full colour if so desired. An appropriate "flight altitude", or level of abstraction, was sought. The messy and dirty work was strongly driven by the topic of inquiry and was consolidated in a *metatheory of small firm performance and entrepreneurship*. It goes without saying that such a novel and truly general research framework in this field allowing access by various paradigms, approaches, sciences and schools of thought certainly may, could and should be improved in subsequent acts of research.

The specificity of the small firm world lies in *entrepreneurship* giving a unique flavour to the inherent dynamics. In no other world do so many people “sit on the fire with their own pants” after taking up the entrepreneurial agency, while also maintaining the small firm “species”. Taking up the entrepreneurial agency means committing to an uncertain course of action in the future by generating situational novelty. The future may not be known. There may be *better or worse cues*, based on “rational” knowledge, tales, rumours or signs from the gods. There may be *more or less confidence in one’s own cues*, based on experience, risk hedging, cultural habit or blind trust. There may be a stronger or weaker *ability to cope with the consequences of the cues*, based on slack resources, alternative opportunities and paths, flexible aspirations or forgivable institutions. Entrepreneurship may be featured by the psychology, economics and sociology of novelty – and by the psychology, economics and sociology of risk.

The concept of the *entrepreneurial project*, fulfilling the risk and novelty criteria, was proposed as the key concept to be used in probing this world by the scientific enterprise. The small firm and entrepreneurship research has been characterized by extensive manufacturing of concepts and empirical research findings without strong integrative focus. In the small firm studies, “*much of the research output has been of mixed and indifferent quality*” (Beaver & Prince 2004, 35), there has been an “*absence of any unifying theory*” why “*knowledge development appears fragmented rather than cumulative*” (Dobbs & Hamilton 2007, 296) in the “*lack of holistic studies*” (Macpherson & Holt 2007, 173). Entrepreneurship research has been “*a cacophony of results and ideas*”, “*a bonanza of efforts*” (Gartner 2001, 27, 28) and “*a hodgepodge of research*” (Shane & Venkataraman 2000, 217). “*There is no consensus among researchers as to the exact meaning of entrepreneurship and the role of entrepreneurs*” (Amit et al. 1993, 816). Apparently, the understanding does not accumulate without a solid basement. Focusing the inquiries on entrepreneurial projects could give rigour to the research effort; it could help to cover all kinds of territories where such appears; and it could aid to distinguish between the outcome (project) and the causal forces, including the personal (analytical dualism), economic and social-institutional agencies possessing causal forces. Essentially, entrepreneurship refers to the uptake of the entrepreneurial agency to introduce and manage entrepreneurial projects, which are situationally novel and which imply a risk of failure for the project and for the entrepreneurial agency. *Entrepreneurs* introduce and own such projects.

On the other hand, many traditional approaches (e.g. conventional economics, organizational ecology, trait theory), based on rational choices, solid interaction or inflexible behaviours, have penetrated this fuzzy world with their precise, fixed and universal explanations. When the core dynamics of this world originates in the entrepreneurial agency, introducing novel and risky projects by using the small firm as an instrumental platform, such claims may have a very poor grip on the slippery phenomenon before it has been institutionalized. The future may not be known. It has to be tried and tested. Entrepreneurial projects may be of almost any kind. They can be introduced by almost anyone and found in almost any context. Furthermore, when the entrepreneurial agency has to cope with many forces simultaneously and sequentially, such paradigmatic claims may at best catch a small slice of this reality. Consequently, neo-classical “pure” economic

theory has closed its eyes completely to entrepreneurship, which simply does not exist! In particular, in the field of economics we have convenient theories of existing, but poor *theories of becoming*. To understand this world, such is needed to capture heterogeneity, historical time, and interaction of structures and actions.

Theories are operating systems of the reality. A more general metatheory may advise us as to how various theories may be used to extract explanations and predictions. Such may comprise the metaphysical “hard core” of a scientific research programme targeted at the production and accumulation of coherent understandings of a specific reality. *The metatheory crafted in this study is a proposal for establishing such a scientific research programme to better understand the small firm world dynamics and entrepreneurship.* It is worth of repeating here, as it is a tender for the operating system of the scientific enterprise in this field:

(1) *The entrepreneurial agency facilitates commitment to a specific course of action to introduce and manage an entrepreneurial project while interacting with the personal, economic and institutional agencies, all having specific “structural inheritances” comprised of the aspirations, resources, and behavioural systems of generation, selection and coherence.*

(2) *The “structural inheritance” and incidental interaction may provide causal powers along focus gain and sequencing of thought and action in energizing aspirations for the commitment and management of the project; they may be placed on the continuums of changeability (determination – deliberation), subjectibility (internal – external) and temporality (past – future).*

(3) *The owner of the entrepreneurial project is an entrepreneur and the small firm has an instrumental role as one potential platform for the project, forming a nexus of exchange and transformation.*

(4) *The entrepreneurial projects have the potential to introduce situational novelty (innovations) in time and/or space as new combinations of competitive resource use or as new sources of isolation in resource use (niche) by meeting aspirations not met by other projects (novelty criterion), and a potential for failure of the project and the entrepreneurial agency (risk criterion).*

(5) *All the entities involved have a “back stage” and a “front stage” allowing for visibility, opacity, fuzziness, accessibility and control of the contents within their boundaries.*

(6) *Performance of this adaptive system can be observed by the entrepreneur, the project, the firm, and the environment, and it is born through achieving (or not) “fits” between the constituencies to allow exchange of aspirations and resources, revising the “structural inheritance” of aspirations, resources and behavioural systems.*

The true difficulty in studying the social world lies in finding the demarcation line between the *universal* and the *particular* in each context. Every change has a particular reason, but the universality of the reasons may lie only at the “grey-boxed” level in a truly heterogenous world. *The presented metatheory defines the absolute universals for this world.* They are, of course, based on convention. They still

should be valid in all contexts and able to guide all inquiries related to this world and, as such, pave the way for a coherent accumulation of understanding. They may help to create, select and test various hypotheses and explanatory theories to arrive at more colourful contextual universals and particulars. They should be able to digest all the concepts manufactured for describing and analyzing this field. Because the deepest ontological essence of the phenomenon is heterogeneity, the epistemological approach trying to frame it has to be based on an appropriate level of abstraction, where cumulative and comparable understandings may be extracted.

The thoughts and actions of human beings (also entrepreneurs) are always affected by some force(s) maintaining or changing the focus gain. The accumulated “structural inheritance” will change when new steps are taken, driven and guided by these forces. Along the way, new forces may become effective through increasing dominance or purely incidental focus gain. *Entrepreneurship is characterized by commitment to an uncertain course of action, along which many “fits” become established, maintained and lost.* Entrepreneurial projects are initiated, managed and closed. All the projects are affected by several forces, which may affect as deterministic “points”, as configurations or as broad force field frontiers, directing the focus of thought and action. The necessary and satisfactory “fits” among them allow exchange of aspirations for resources. Aspirations energize the agencies and resulting performance is moderated by resources and behavioural systems facilitating their fulfilment. The small firm world with a huge number of diverse entrepreneurial projects is truly multidimensional, affected by personal, economic and social-institutional agencies.

Various *research lenses* may focus the metatheory on various territories of this multidimensional world in distilling contextual research findings. The metatheory comes equipped with three broad research lenses of *changeability* (deterministic – deliberate/flexible), *subjectibility* (internal – external) and *temporality* (past – future). They may expose a range of effective universal or particular causal powers in each context. For specific research purposes, the metatheory could be focused with several other lenses as well (e.g. strategy lens, complexity lens, risk lens, learning lens). The research findings should have a coherent relationship, a link, with the “hard core” of the metatheory in order to contribute to the scientific research programme.

The capacity of the metatheory to guide research work was illustrated with three mini-cases. Different kinds of ordinary research methods were used with various kinds of data concerning small Finnish farm-based firms. In all cases, the metatheory was helpful and the link could be maintained. The empirical research findings, as such, were just examples of the universals and particulars among the causal powers affecting the entrepreneurial projects in this context. The cases illustrated the value of a coherent approach to the empirical research act. The illustrations identified some universals in the specific context as to how the entrepreneurial agency initiated, managed and closed diverse projects, while being afforded and constrained by the various generative, selective and coherence maintaining forces along the accumulation of “structural inheritance”. Despite the numerous diverse forces that existed in this context, they resulted in a precise action through maintenance or uptake of the focus gain by the entrepreneurial

agency. The cases employed rather broad lenses, synthesizing several forces, but also more focused investigations are possible as long as the link with the metatheory is specified to avoid rootless empiricism. How to maintain this link, was the ultimate purpose of the illustrations.

The methodological challenge in coping with this kind of multidimensionality asks the researcher to work at an appropriate level of synthesis and abstraction; the cases illustrated also some ideas of methodological development for which the metatheory encourages in this respect. For “artificially” precise prescriptions – asking for artificial presumptions – we have plenty of tools, but genuinely multidimensional prescriptions lack such repertoire. To this end, the ordinary human mind is probably better equipped than the contemporary scientific enterprise. In this quest, the interpretative “hard core” of the metatheory was a useful backbone. It worked like a *colouring book* providing structure for the phenomenon, but accepting several colours to produce valid pictures of diverse contexts: *“The goal of science is to make the wonderful and the complex understandable and simple – but not less wonderful”* (Simon 1996, x).

9.2 Relevance, Validity and Reliability of the Metatheory

Against which criteria should this kind of a metatheory be judged? Regarding “normal theory”, Weick (1989, 517) gave a demanding guideline:

“Verification and validation are used interchangeably to mean the demonstration, beyond pure chance, that the ordered relationship predicted ... exists. ... Finally, a good theory is a plausible theory, and a theory is judged to be more plausible and of higher quality if it is interesting rather than obvious, irrelevant or absurd, obvious in novel ways, a source of unexpected connections, high in narrative rationality, aesthetically pleasing, or correspondent with presumed realities. Each of these outcomes is more likely when theorists develop fuller problem statements, create more diverse thought trials, and apply multiple selection criteria more consistently to these thought trials.”

Abrams and Hogg (2004, 103), while discussing social psychology, provided also some guidance for testing a theory:

“A valuable way to test the limits of theory is to pitch it into the real world. Think of the most mundane everyday relations or situations to which the theory should apply. Does it apply across all such situations? Does it apply consistently over time? Does it apply to all participants and actors? If not, why not? Do these failures to fit the theory represent real boundaries or merely minor exceptions that require refinement in the theory?”

While these would be marvellous tests for many of the existing theories for this world (e.g. neo-classical microeconomics), they do not have that role for the more abstract metatheories. As evident in the cases, the metatheory apparently could support studies that were “high in narrative rationality” and “applied to all participants and actors”, for example.

But metatheories represent a different technology of science. *Their role is not to produce precise scientific explanations, but to generate and maintain basic understandings on which these explanations are based on. Their role is not to make predictions, but to lay*

the foundations for them. A metatheory is an incubation system for the scientific understanding, for explanatory and observational theories (Newell 1990, 14): “Theories are things to be nurtured and changed and built up”. They maintain an epistemological hierarchy within a stable interpretative “hard core” with flexible outskirts, where various middle-level or local theories and hypotheses may be tested and evaluated, verified or falsified (Popper 1959, 27), and possibly replaced by other ones as an everyday job by the scientists. Metatheories synthesize and frame middle-level theories; they help to focus research on plausible territories and help the development of competing lower level theories to be tested against the rationale provided by the metatheory and the empirical evidence of the reality (Ketelaar & Ellis 2000, 4; Overton & Ennis 2006, 145). Metatheories provide speculative, untestable world pictures that may direct attention and search of explanations rather than statements directly testable against evidence of the reality (Koertge 1979, 56; Overton 2007, 154).

Specifically, Lakatos (1970, 1978) considered *metatheory as the “hard core” of a scientific research programme*. This hard core is surrounded by a lower level protective belt of auxiliary hypotheses. This operates as the problem-solving machinery for the scientific research programme: the competing middle-level theories and hypotheses connect the core logic of the metatheory to diverse domains, where it is operationalized and tested and used to improve the understandings. The protective belt provides insulation for the metatheory against direct refutation, and the metatheory receives only indirect support filtered through this belt. In this way, falsification of a single theory or hypothesis or prediction (in Popperian sense) does not reject the whole metatheoretical research programme, as such a single element may be replaced by a better one on the outskirts of the research engine. This kind of a process contributes to a genuine and coherent progression, when the “big picture” and the specific, contextual understanding both strengthen and accumulate. Wagner and Berger (1986, 179) illustrate the hierarchy:

“In the final analysis they [metatheories] are evaluated in terms of their utility as framework ideas, orienting principles, and directives in producing different types of unit theories. It is the unit theories, however, that are evaluated in terms of such criteria as empirical accuracy, generality, or explanatory power relative to other available unit theories.”

The metatheories do not exist to become verified or falsified. *They exist to direct a coherent research act, and to collect the benefits of progressive scientific discoveries in a specific field. They are more or less useful in this role. Their parts may be changed and modified to make them more useful.* For example, “force field theory” or the “corridor principle”, allowing dominance-based and incidental focus gain to vary in *historical time*, were found to be much more appropriate middle-range and observational theories for this phenomenon than neo-classical economics, organizational ecology or various approaches of psychology emphasizing immanent traits. The confrontational debate used as a discussion opener for the study as to whether it is the adaptation or the selection that is the only logic of business evolution, proved to be an intellectual waste. It is both, of course, but within a meaningful analytical structure. Any metatheory may become replaced by a new metatheory,

having more steam and being able to accommodate anomalies and pave a better way for new discoveries.

As such, the *relevance* and *validity* of the metatheory lies in its value for the scientific research programme, when it guides and controls the problem solving strategy. If it was useful in providing genuine progression, it was relevant; if it was successful in maintaining coherence, it was valid (cf. Calder et al. 1982, 243; Lakatos 1978, 33-34, 155; Ketelaar & Ellis 2000, 13; Taylor et al. 2006, 312-313). *If it was able to besiege the particular reality successfully to extract descriptions and explanations to understand it better, it was both.* Ultimately, theories are operating systems of reality, and metatheory is an operating system of theories or the scientific enterprise in a specific field. The metatheory developed in this study is a proposal for setting up a coherent scientific research programme for the small firm world dynamics and entrepreneurship, based on the lines laid down by it. To ensure the relevance and validity of the metatheory in this role, it was constructed on a broad basis. *The distillation process was extensively documented to expose the line of thought, making it easier to identify weaknesses and make improvements.* Relying on a broad basis and logics was deemed to be a safe solution, as compared to working only with what was done on this particular field before, because a thousand scientists could have been wrong: citing each other, taking narrowing paths and becoming increasingly blind along while taking progressive steps towards Kuhnian professionalism – or paradigm prison. The metatheory was a useful “colouring book” in the case studies used to illustrate its role, but its value regarding other research needs, contexts, methods and data sets is to be seen only in the future. The true value of a scientific research programme, especially in the social world, will be exposed only in time. *Reliability* of a metatheory concerns the empirical findings rather than the metatheory itself, for which relevance and validity are more important evaluation criteria.

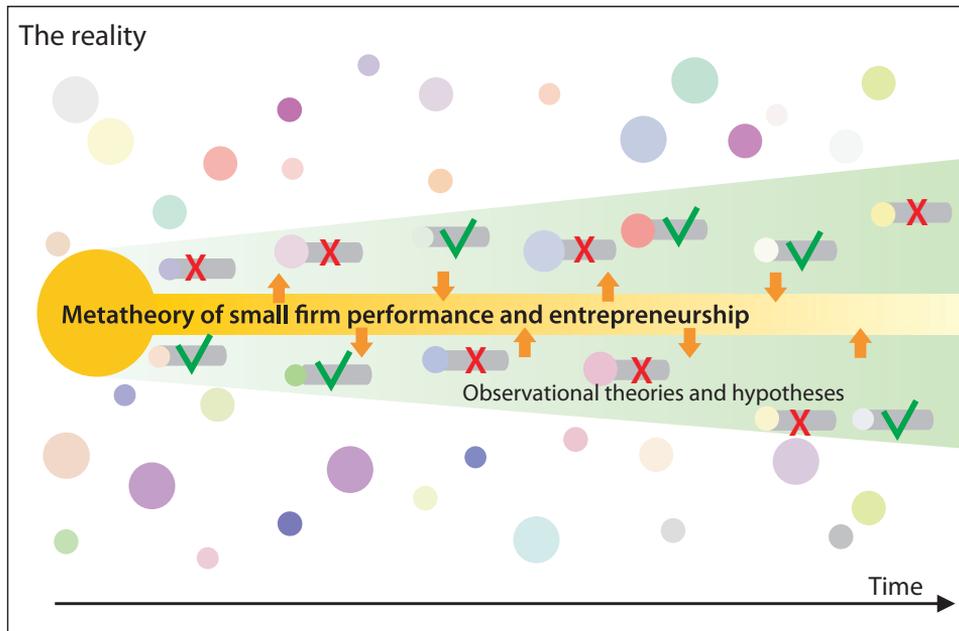


FIGURE 46 Relevance and Validity of the Metatheory as a Useful Operating System of a Progressive Scientific Research Programme

9.3 Implications for Future Research

The small firm and entrepreneurship research field is characterized by a fragmented corpus of disparate empirical findings and partly invalid theories regarding their philosophical and intellectual basis to master ontological heterogeneity. The metaphysical “hard core” of a research programme capable of guiding and controlling a coherent accumulation of scientific understanding is sketched in this study. *It is a tender to be taken as the basis for the research act in this field, subject to revision and improvement.* Manufacturing of more rootless findings or canonization of intellectually invalid frameworks do not provide genuine and coherent progress. Scholars should have more courage to distinguish between useful and less useful theories and concepts in their inquiries. Many inquiries are taken from the “paradigm prisons”, are blindly or willingly bound to the epistemological and methodological premises allowed in their cells. In truly multidimensional and interdisciplinary phenomena, they may capture only slices of reality – slices, which are allowed or possible to be seen between the bars.

If economists, sociologists, psychologists, anthropologists and other scholars were really asked to sit around a table, and told they needed a common analytical platform and a somewhat common language to generate coherent understandings of the topic on the table, what would the result be? *If they could agree upon the essential universals related to the phenomenon and let it guide and control their research act, the topic-driven research programme of this multidimensional world could be progressive.* Indeed, *“metaphor deserves more attention from those who attempt interdisciplinary theoretic integration”* instead of *“isolated specialization”* (Ambrose 1996, 265-266).

“Wisdom consists of the ability to sustain a conversation” (Mahoney 1993, 185). None of the single sciences could explain the following phenomenon alone:

It was one misty morning when one of the sheep left the herd. In the evening it came back, but left again the next morning. The members of the herd were wondering why she left, since there were wolves around. On the third morning, another sheep followed her to see why the trips were actually done. The wanderer had followed a rainbow and found a rich pasture in a valley behind the mountains. On the fourth morning, the whole herd moved there.

This study provides hardly anything for those in the safe cells of some “paradigm prison” and happy with their destination. For those interested in understanding the kaleidoscopic dynamics of this world, it hopefully provides some inspiration and ideas as to how to proceed.

SUMMARY IN FINNISH (YHTEENVETO)

Tutkimuksen tavoitteena oli laatia metateoria pienyritysten toiminnasta ja yrittäjyydestä sen keskeisenä taustavoimana. Yrittäjyys on vaikuttava voima, joka voi tuottaa ja ylläpitää *yrittäjyysprojekteja* monilla aloilla (liiketoiminta, politiikka, kulttuuri, sotatoimet, rikollisuus jne.) ja monenlaisten alustojen varassa, joista pienyritys on yleisin. Projekti velvoittaa sen omistajan *sitoutumaan strategiaan, riskipitoiseen, tulevaisuuteen suuntautuvaan ja oppimiseen velvoittavaan polkumaiseen valintaan*. Jos projekti onnistuu sovittamaan yhteen ("fit") siihen liittyvät mielihalut, voimavarat ja toimintatavat riittävän hyvin, se voi tuottaa paikallisen tai ainutkertaisen *uutuuden*, innovaation. Koska tulevaisuutta ei voi tietää, yrittäjillä on siitä erilaisia arvauksia, heidän luottamuksensa arvauksiin vaihtelee ja he kestävät väärät arvaukset eri tavoin. Projektin tuloksellisuutta voidaan havainnoida yrittäjän, projektin, yrityksen ja toimintaympäristön näkökulmista.

Ilmiökentän kuvaamiseksi ja selittämiseksi rakennettiin metateoria, jonka avulla se on mahdollista piirittää kattavasti. Metateorian aineksia haettiin mm. taloustieteen, sosiologian, psykologian, biologian, strategisen johtamisen, organisaatiotutkimuksen, antropologian, dramaturgian, filosofian sekä tietenkin yrittäjyyden teorioista, käsitteistä ja tutkimustuloksista. Yrittäjyys erotettiin sitä kantavasta henkilöstä, joka on yrittäjyydelle samalla tavalla mahdollistava ja rajoittava tekijä kuin taloudelliset, sosiaaliset ja yhteiskunnalliset tekijätkin. Näistä muodostuva "historiallinen perintö" saattaa hallita projektin omistajan (yrittäjän) ajattelua ja toimintaa, joka voi kuitenkin suuntautua ennakoimattomalla tavalla myös täysin satunnaisten tekijöiden vuoksi. Niinpä vaihtoehtoja luovat, karsivat ja toiminnan johdonmukaisuutta ylläpitävät voimat sekä niiden tuloksena syntyvät projektit vaihtelevat voimakkaasti tilanteesta toiseen. Siksi *yrittäjyyttä ja yrittäjyysprojekteja voidaan kuvata vertailukelpoisella ja yleistettävissä olevalla tavalla vain "metatasolla"*. Yrittäjyyden tulosten tarkka ennustettavuus on huono, mihin perustuu myös sen kyky muuttaa maailmaa.

Metateoriaa voidaan tarkentaa erilaisilla *tutkimuslinseillä* käytännön tutkimustyötä varten. Teorian vakiovarusteisiin kuuluu kolme linssiä: 1) onko vaikuttava tekijä muutettavissa vai ei, 2) onko se peräisin sisäisistä vai ulkopuolisista lähteistä ja 3) perustuuko se menneeseen vai tulevaan. Nämä perusulottuvuudet voivat kiteyttää eri oppisuuntien tutkijoiden runsaan käsittehtailun tulokset, täydentää eri tieteenalojen vajavaisia teorioita ja yhdenmukaistaa yrittäjyyden ja pienyritysten toiminnan tarkastelutapaa. Parhaimmillaan metateoria voi toimia tieteellisen tutkimusohjelman johdonmukaisuutta ylläpitävänä sekä erilaiset teorit, tutkimusotteet ja tulokset yhdistävänä ytimenä. Pienyrityksiä ja yrittäjyyttä koskevassa hajanaisessa tutkimuksessa tälle on erityistä tarvetta. Metateoriaa ei voida empiirisesti kumota, mutta sitä voidaan parantaa tai se voidaan korvata paremmalla. Sen hyödyllisyyttä koeteltiin kolmessa Suomen maatilojen yrittäjyysprojekteja koskeneessa empiirisessä minitutkimuksessa.

Avainsanat: Metateoria, pienyritys, yrittäjyys, moniulotteisuus

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APPENDICES

APPENDIX 1

CST-INVENTORY TO ILLUSTRATE CHANGEABILITY, SUBJECTIBILITY AND TEMPORALITY RELATED TO THE ENTREPRENEURIAL PROJECT (CASE 1)

1) Aspirations related to the project

	<u>Importance</u>					
	Very low				Very high	
Personal aspirations	1	2	3	4	5	
Economic aspirations	1	2	3	4	5	
Social-Institutional aspirations	1	2	3	4	5	
<i>Qualities of personal aspirations</i>						
Inflexible	1	2	3	4	5	Flexible
Internally defined	1	2	3	4	5	Externally influenced
Past-based	1	2	3	4	5	Future-oriented
<i>Qualities of economic aspirations</i>						
Inflexible	1	2	3	4	5	Flexible
Internally defined	1	2	3	4	5	Externally influenced
Past-based	1	2	3	4	5	Future-oriented
<i>Qualities of social-institutional aspirations</i>						
Inflexible	1	2	3	4	5	Flexible
Internally defined	1	2	3	4	5	Externally influenced
Past-based	1	2	3	4	5	Future-oriented

2) Resources related to the project

	<u>Importance</u>					
	Very low				Very high	
Personal resources	1	2	3	4	5	
Economic resources	1	2	3	4	5	
Social-Institutional resources	1	2	3	4	5	
<i>Qualities of personal resources</i>						
Inflexible	1	2	3	4	5	Flexible
Constructed/learned	1	2	3	4	5	From external sources
Past-based	1	2	3	4	5	Future-oriented
<i>Qualities of economic resources</i>						
Inflexible	1	2	3	4	5	Flexible
Constructed/accumulated	1	2	3	4	5	From external sources
Past-based	1	2	3	4	5	Future-oriented

Qualities of social-institutional resources

Inflexible	1	2	3	4	5	Flexible
Constructed/organized	1	2	3	4	5	From external sources
Past-based	1	2	3	4	5	Future-oriented

3) Behaviours related to the project

	<u>Importance</u>					
	Very low			Very high		
Generation of alternatives	1	2	3	4	5	
Selection and choice	1	2	3	4	5	
Maintenance of coherence	1	2	3	4	5	
<i>Generation of alternatives</i>						
Inflexible model	1	2	3	4	5	Flexible behaviour
Self tried/constructed	1	2	3	4	5	Based on external models
Past-based ref. points	1	2	3	4	5	Future-based ref. points
<i>Selection and choice</i>						
Inflexible model	1	2	3	4	5	Flexible behaviour
Self tried/constructed	1	2	3	4	5	Based on external models
Past-based ref. points	1	2	3	4	5	Future-based ref. points
<i>Maintenance of coherence</i>						
Inflexible model	1	2	3	4	5	Flexible behaviour
Self tried/constructed	1	2	3	4	5	Based on external models
Past-based ref. points	1	2	3	4	5	Future-based ref. points

4) Performance by the project

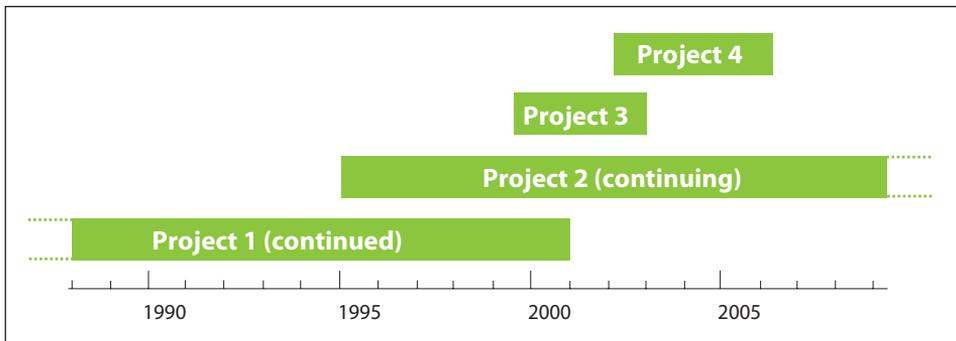
	<u>Performance</u>				
	Very low			Very high	
Personal performance	1	2	3	4	5
Economic performance	1	2	3	4	5
Social-institutional performance	1	2	3	4	5

The ICT-Inventory may be calibrated using expressions that are relevant to the context and attuned by adding short descriptions of the continuums.

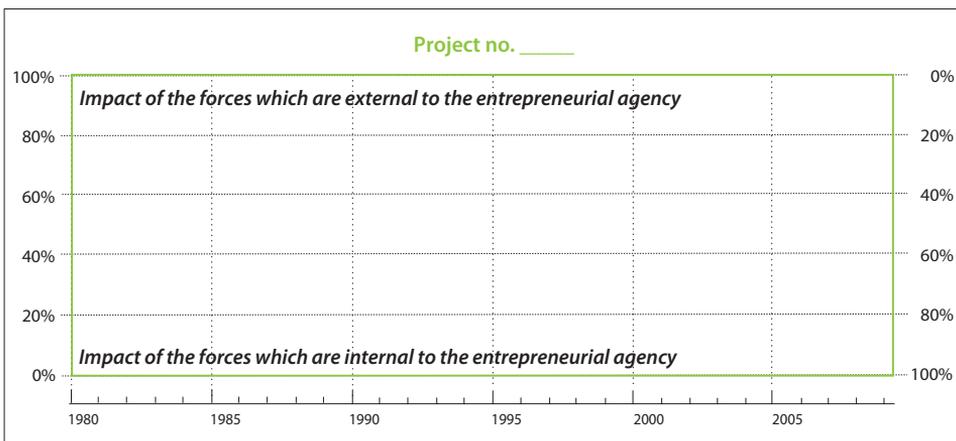
APPENDIX 2

THEMES IN THE INTERVIEWS FOR CAPTURING THE DIALOGUE BETWEEN THE AGENCY “IN HERE” AND THE STRUCTURE “OUT THERE” (CASE 2)

1) Identification and specification of the entrepreneurial projects: start and closure, sector, size as labour input; check of novelty and risk criteria

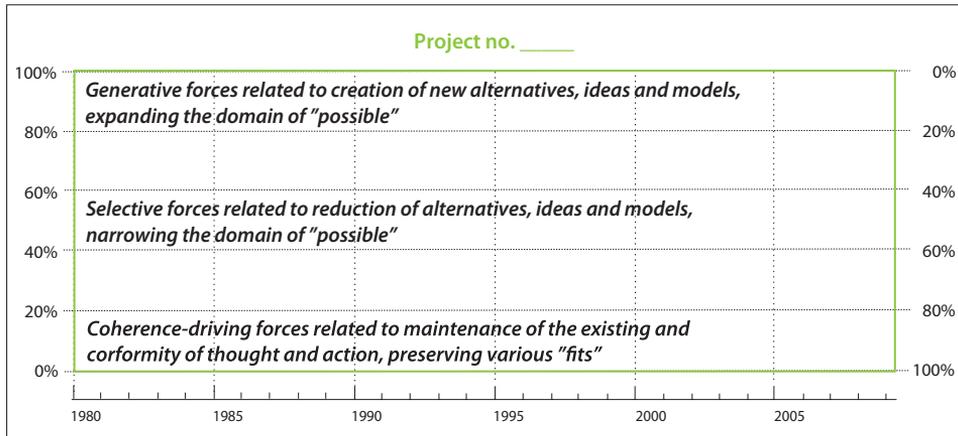


2) For each project, a temporal power field map is sketched to identify the dominance of the entrepreneurial agency or the external agencies (or structures), with potential bifurcation points (research questions 1 and 2; subjectibility)



NOTE. In all occasions, the craft of the maps is guided by the interviewer asking to identify the dominant or incidentally focused aspects, their causes and effects, encouraging the entrepreneur to understand why their business life was lived in that particular way.

3) For each project with the bifurcation points, a temporal power field map is sketched to identify the dominance of the behavioural systems of generation, selection and coherence *by the entrepreneurial agency* (research question 3; subjectibility)



APPENDIX 3

VARIABLES IN THE ANALYSIS OF THE INTENTIONS FOR A NON-AGRICULTURAL ENTREPRENEURIAL PROJECT (CASE 3)

Variable	Description
<i>Life-cycle stage:</i>	
Age, farmer	Age of the farmer: 1 = less than 35 years, 2 = 35- years
<i>Region:</i>	
Region type	Type of the region, national municipality-based multi-criteria typology in 2006: 1 = town, 2= urban-adjacent rural area, 3 = rural heartland area, 4 = remote rural area
<i>Current Farm Business and Income Sources:</i>	
Type of farm business	The most important farm business sector based on sales: 1 = animal husbandry, 2 = crop production, 3 = other production (e.g. forestry, farm tourism, various services)
Diversification	Number of farm business sectors: 1 = 1, 2 = 2-7
Farm size (field area)	Field area under cultivation: 1 = <49 ha, 2 = 50- ha
Turnover in agric. business	Turnover in agricultural business (including subsidies, excluding value added tax): 1 = less than the category of the average, 2 = at least the category of the average (40,001-70,000 euros)
Turnover in forestry business	Turnover in agricultural business (including subsidies, excluding value added tax): 1 = less than the category of the average, 2 = at least the category of the average (10,001-20,000 euros)
Turnover in non-agr. business	Turnover in agricultural business (including subsidies, excluding value added tax): 1 = less than the category of the average, 2 = at least the category of the average (10,001-20,000 euros)
Agric. business income, farmer	Share of agriculture in the gross earnings of the farmer: 1 = full-time (> 75 %), 2 = subsidiary (50-75 %), 3 = part-time (<50 %)
Non-agr. business income, family	Share of non-agricultural business income in the total income (incl. salaries, interest, rent, etc.) of the farm family: 1= no non-agricultural business income, 2 = less than 50 %, 3 = at least 50 %

Strategy:

Farm business strategy Farm business strategy: 1 = growth, 2 = no change, 3 = decline or closure

Non-Agricultural Education and Non-Agricultural Professional Experience:

One profession, farmer	Non-agricultural profession by the farmer: 1 = no, 2 = yes
One profession, spouse	Non-agricultural profession by the spouse or companion living on the farm: 1 = no (spouse or profession), 2 = yes
One profession, child	Non-agricultural profession by the child living on the farm: 1 = no (child or profession), 2 = yes
Several professions, farmer	Several non-agricultural professions by the farmer: 1 = no, 2 = yes
Several professions, spouse	Several non-agricultural professions by the spouse or companion living on the farm: 1 = no (spouse or professions), 2 = yes
Several professions, child	Several non-agricultural professions by the child living on the farm: 1 = no (child or professions), 2 = yes
Education, farmer	Non-agricultural professional or university education by the farmer: 1 = no, 2 = yes
Education, spouse	Non-agricultural professional or university education by the spouse or companion living on the farm: 1 = no (spouse or education), 2 = yes
Education, child	Non-agricultural professional or university education by the child living on the farm: 1 = no (child or education), 2 = yes
Work experience, sector, farmer	Non-agricultural work experience by the farmer: 1 = no, 2 = yes, in productive activities (forestry, industry, construction, etc.), 3 = yes, in other activities
Work experience, sector, spouse	Non-agricultural work experience by the spouse or companion living on the farm: 1 = no (spouse or experience), 2 = yes, in productive activities (forestry, industry, construction, etc.), 3 = yes, in other activities
Work experience, sector, child	Non-agricultural work experience by the child living on the farm: 1 = no (child or experience), 2 = yes, in productive activities (forestry, industry, construction, etc.), 3 = yes, in other activities
Work experience, length, farmer	Non-agricultural work experience by the farmer: 1 = no, 2 = yes, less than 3 years, 3 = yes, at least 3 years

Work experience, length, spouse	Non-agricultural work experience by the spouse or companion living on the farm: 1 = no (spouse or experience), 2 = yes, less than 3 years, 3 = yes, at least 3 years
Work experience, length, child	Non-agricultural work experience by the child living on the farm: 1 = no (child or experience), 2 = yes, less than 3 years, 3 = yes, at least 3 years
<i>Non-Agricultural Business Experience:</i>	
Experience, farmer	Non-agricultural business experience by the farmer: 1 = no, 2 = yes
Experience, spouse	Non-agricultural business experience by the spouse or companion living on the farm: 1 = no (spouse or experience), 2 = yes
Experience, child	Non-agricultural business experience by the child living on the farm: 1 = no (child or experience), 2 = yes
<i>Intention to start a non-agricultural entrepreneurial project within the next 5 years:</i>	
Intention, general	The farmer, the spouse or the child living on the farm has the intention to start a non-agricultural entrepreneurial project within the next 5 years: 0 = no, 1 = yes
Intention, distant	The farmer, the spouse or the child living on the farm has the intention to start a "distant" non-agricultural entrepreneurial project within the next 5 years: 0 = no, 1 = yes "Distant" = off-farm; machinery contracting, business services, technical services, construction services, social and health care services, other services Vs. "proximate" = on-farm; processing of the farm supplies, horse business, fire wood and energy production, farm tourism and catering, forest-based businesses











