

# **BRINGING DYNAMISM INTO DYNAMIC CAPABILITIES: PROCESS, PRACTICE AND CRITICAL APPROACHES**

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# Acknowledgments

When I started this PhD I never thought it would be such a long and difficult journey. With a career of more than 15 years in the highly demanding corporate world, and having already done a Master thesis, I thought that doing a PhD would be a piece of cake. It was also an old dream, and at that time, for professional and personal reasons, it seemed to me that the right moment had come. The original plan was to make a ‘short’ pause of three years in my professional career as a manager, so that I could broaden my academic knowledge about management, spend more time with my family, and also invest in personal development (focusing more at my inner self and less in the outside world). While I actually managed to accomplish both the academic, family and personal goals, it took me six years to reach here, and the journey was everything but simple and straightforward.

Through the journey I did a lot of things that were not originally planned, like teaching at FEP, collaborating with INESC-TEC, and working in a project for the European Commission. At the same time, I met a lot of people who contributed to my personal development and to making the journey more enriching. However, several things did not happen as I expected. In particular, due to several constraints related with data collection, I was not able to accomplish my first project thesis as I had initially calculated and imagined. The moment I realized I needed to change the topic of my PhD thesis, I questioned myself if I had enough energy and motivation to start it all over again. After meditating over the subject, I decided that giving up was not a choice. I am a resilient person. But I had to find a new research topic, and did not want to face the same kind of problems with data collection that I had experienced in the first time (as people say, ‘once bitten, twice shy’).

At that time, I found myself unemployed for the first time in my life. I was worried, and thought that I had two problems to solve. It took me a while to look on the bright side of the situation – finally, I would be totally available for doing the PhD. Coincidentally or not, for reasons not related with the PhD, I happened to meet Professor Manuel Graça, with whom I shared the issues about the research I was doing, and how I felt about not seeing the light at the end of the tunnel. He was very supportive, and helped me thinking more clearly about potential solutions. Our conversation was absolutely determinant in my decision about which the new research topic would be: dynamic capabilities. Changing the research topic, in my case, also implied shifting supervisors. That was the most difficult part, as I really respected my previous supervisors, Professor Pedro Quelhas Brito and Professor Alípio Jorge, to whom I am grateful for many reasons, including for having sympathetically accepted my decision and facilitated the transition to my next supervisor.

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I dedicate this thesis to my beloved daughters, Mariana and Carolina. #powerfulgirls

Fabiane Valente

# Abstract

Even though dynamic capabilities as a research topic has been studied for more than twenty years, with few exceptions, academic scholarship has privileged a mainstream view over its nature, microfoundations and outcomes. Differently, this thesis adopts three alternative lenses to approach dynamic capabilities in ways that not only contrast but also complement the mainstream view. These three approaches are: a process-oriented view that assumes an Heraclitean conception of reality as always in flux; a practice-based approach that pays attention to human activity as a complex systemic formation; and a critical Foucauldian perspective that sees power as circulating through discourse.

The motivation for developing these novel approaches stems from the conviction that the mainstream view is weak in its capacity to examine a dynamic concept like dynamic capabilities in a truly dynamic and innovative way. First, the mainstream view reveals a tendency to stabilizing the dynamic and ongoing nature of dynamic capabilities through efforts of representing it in well-organized names, concepts and categories. Second, the mainstream view has dedicated little attention to the contribution of the actions and interactions of multiple actors within and around the organization (not restricted to managers) to the microfoundations of dynamic capabilities. Third, the mainstream view insists on a managerial discourse with taken-for-granted assumptions that have not yet been critically examined.

This thesis contributes to address these issues through bringing together the process, practice and critical approaches to dynamic capabilities theorizing. More specifically, the process-oriented view provides a novel look at dynamic capabilities as a *becoming* phenomenon, rather than a static thing or end-state, suggesting two process-oriented theories, organizational sensemaking and actor-network theory, that can aid a process-based understanding of dynamic capabilities. The practice-based approach builds upon cultural-historical activity theory to broaden our understanding of dynamic capabilities as a socially embedded construct, revealing the role of dialectical strategic and entrepreneurial practices to the microfoundations of dynamic capabilities. The critical perspective explores the governmentality of mainstream academic dynamic capabilities discourse to unveil its hidden power effects.

Together, the three approaches contribute to invigorate key debates within dynamic capabilities scholarship, namely around the nature and microfoundations of dynamic capabilities, and the link between dynamic capabilities and competitive and sustained advantage, and to start new

discussions, specifically around the managerialism of dynamic capabilities discourse, while bringing dynamism into dynamic capabilities scholarship.

**Keywords:** Dynamic Capabilities, Strategic Change, Strategic Entrepreneurship, Process Thought, Actor-Network Theory, Organizational Sensemaking, Practice, Strategy-as-Practice, Cultural-Historical Activity Theory, Critical Studies, Foucault, Power, Power Relations, Power/Knowledge, Discourse, Governmentality.

# Resumo

Embora as capacidades dinâmicas como tópico de investigação tenham sido estudadas por mais de vinte anos, salvo raras exceções, a investigação académica tem privilegiado uma visão *mainstream* para estudar a sua natureza, microfundações e efeitos. Diferentemente, esta tese adota três lentes alternativas para abordar as capacidades dinâmicas de formas que não apenas contrastam, mas também complementam a visão *mainstream*. Essas três abordagens são: uma visão orientada para o processo que assume uma concepção Heraclitiana da realidade como sempre em fluxo; uma abordagem baseada na prática que olha para a atividade humana como uma formação sistémica complexa; e uma perspetiva crítica Foucaultiana que vê o poder circulando através do discurso.

A motivação para desenvolver essas novas abordagens vem da convicção de que a visão *mainstream* é fraca na sua capacidade de examinar um conceito dinâmico como capacidades dinâmicas de uma forma verdadeiramente dinâmica e inovadora. Em primeiro lugar, a visão *mainstream* revela uma tendência de estabilizar a natureza dinâmica e contínua das capacidades dinâmicas por meio de esforços para representá-las através de nomes, conceitos e categorias bem organizados. Em segundo lugar, a visão *mainstream* tem dedicado pouca atenção à contribuição das ações e interações de vários atores dentro e à volta da organização (não restrita aos gestores) para as microfundações das capacidades dinâmicas. Terceiro, a visão *mainstream* insiste num discurso *managerialista* com suposições tidas como certas que nunca foram examinadas criticamente.

Esta tese contribui para endereçar estas questões ao reunir as abordagens de processo, prática e crítica para a teorização das capacidades dinâmicas. Mais especificamente, a visão orientada para o processo fornece um novo olhar sobre as capacidades dinâmicas como um fenómeno de devir, ao invés de uma coisa estática ou estado final, sugerindo duas teorias orientadas para o processo, *sensemaking* organizacional e *actor-network theory*, que podem ajudar na compreensão das capacidades dinâmicas enquanto efeitos de processos. A abordagem prática baseia-se na *cultural-historical activity theory* para alargar a nossa compreensão das capacidades dinâmicas enquanto construção social, revelando o papel da dialética entre práticas de estratégia e empreendedorismo para as microfundações das capacidades dinâmicas. A perspetiva crítica explora a *governmentality* do discurso académico *mainstream* sobre as capacidades dinâmicas para revelar os seus efeitos de poder ocultos.

Juntas, as três abordagens contribuem para revigorar os principais debates no âmbito do conhecimento sobre capacidades dinâmicas, nomeadamente em torno da sua natureza e microfundamentos e da sua ligação a vantagens competitivas e sustentadas, e para iniciar novas discussões, especificamente em torno do *managerialismo* do discurso mainstream sobre capacidades dinâmicas, enquanto traz dinamismo para o conhecimento das capacidades dinâmicas.

**Palavras-chave:** Capacidades Dinâmicas, Mudança Estratégica, Empreendedorismo Estratégico, Pensamento de Processo, *Actor-Network Theory*, *Sensemaking* Organizacional, Prática, *Strategy-as-Practice*, *Cultural-Historical Activity Theory*, Estudos Críticos, Foucault, Poder, Relações de Poder, Poder/Saber, Discurso, *Governmentality*



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# List of abbreviations

ANT	Actor-Network Theory
DC	Dynamic Capabilities
DMC	Dynamic Managerial Capabilities
EM	Eisenhardt and Martin (2000)
RBV	Resource-Based View
SaP	Strategy-as-Practice
SE	Strategic Entrepreneurship
TPS	Teece, Pisano and Shuen (1997)

# Chapter 1 Introduction

## 1.1 Background

That firms need to adapt and evolve in this turbulent and uncertain world is undisputable. Even though organizational routines may provide a feeling of control over the way things are done, when external change occurs, like it happened with the current Covid-19 pandemic, organizations need to rapidly change and adapt the way they do things and sometimes the things they do in order to remain competitive or even to survive. How firms are able to reconfigure their resources, competences and capabilities to deal with the challenges posed by changing environments is the concern of the dynamic capabilities (DC) framework. Hoping to introduce dynamism into the static approach of the resource-based view (RBV) of the firm (Barney, 1991; Peteraf, 1993; Wernerfelt, 1984), the DC framework was originally proposed by Teece, Pisano and Shuen (1997) (TPS from here on) with the purpose to explain the sources of competitive and sustained advantage in fast changing environments. Following TPS's seminal contribution, scholars have attempted to develop the DC framework further, sometimes extending and clarifying TPS's formulation, other times challenging it. Among the latter, Eisenhardt and Martin (2000) (EM from here on) questioned the nature and outcomes of DC originally prescribed by TPS, and particularly the capacity of DC themselves to sustain competitive advantages in high velocity markets.

Because it provided such a contrasting framing to TPS's one, leading to many tensions and contradictions in DC scholarship (Peteraf, Di Stefano and Verona, 2013) which few scholars have attempted to reconcile (e.g., Peteraf et al., 2013; Di Stefano, Peteraf and Verona, 2014; Nayak, Chia and Canales, 2020), EM's paper is often considered a second seminal contribution (Peteraf et al., 2013). Even though two decades have passed, and thousands of papers have been published on DC, the DC framework is still under development, with scholars continuing to struggle with the same questions that remain unclear in the RBV literature. Why and how do a firm's DC become idiosyncratic? Are DC truly inimitable and why? In which conditions may DC be a source of competitive and sustained advantage? In a recent paper, Nayak et al. (2020) proposed a non-cognitive microfoundational framework for DC that attempts to address these questions in a fresh, alternative way. By adopting a practice-based approach inspired in Bourdieu's social theory, the originality of their paper puts in evidence the need for novel approaches to DC that contrast with, but also complement, the mainstream view. The present thesis is a response to this need.

This said, this thesis offers three novel ways of looking at DC: a process-oriented view that assumes an Heraclitean conception of reality as always in flux; a practice-based approach that pays attention to human activity as a complex systemic formation (Engeström, 1987); and a critical perspective that sees power as circulating through discourse (Foucault, 1980). The motivation for developing these three approaches stems from the conviction that the mainstream view is weak in its capacity to examine a dynamic concept like DC in a truly dynamic and innovative way. Firstly, the mainstream view describes DC as a static construct, as ‘something’ that is tangible and visible, emphasising the boundary between organization (inside) and environment (outside), and ignoring the dynamics of DC as an active forming process that happens *in between*. Secondly, the mainstream view has not paid enough attention to the daily activities of all actors within and around the organization, their actions and interactions, which may contribute to explain DC as a socially embedded construct. Thirdly, the mainstream academic DC discourse provides a full menu on how entrepreneurial and strategic managers can create successful firms, which hidden power effects have not yet been critically investigated. The process, practice and critical approaches, respectively, address these issues, while contributing to bring dynamism into DC scholarship.

### **1.1.1 Why a process-oriented view?**

In a recent content-analytic review Schilke et al. (2018) concluded that a process-oriented approach to DC theorizing is still scarce in scholarship. The approach developed is a response to Schilke et al.’s (2018) invitation for researchers to approach DC from a process perspective. Having reviewed the key theoretical contributions to DC scholarship, it is my understanding that DC scholars in the mainstream tradition have attempted to explain the nature and theoretical underpinnings of DC in cognitive and representationalist terms, an approach that builds upon a Parmenidean assumption of reality as fundamentally permanent and unchangeable, rather than a Heraclitus’ view of reality as always in flux. As such, the mainstream view has primarily approached DC as a taken for granted thing that is “already given and ‘out there’” (Chia, 1995, p. 594), privileging a *substance* mode of thinking that has struggled to represent DC in well-organized names, concepts and categories, this way closing off the ontological question of what is *beyond* DC. Although the DC framework was originally proposed to introduce dynamism into the static approach of the RBV, scholars in the mainstream tradition show a tendency to stabilizing the dynamic nature of DC through efforts of conceptualization and categorization. However, consistent with a *process* style of thinking, names, concepts and categories cannot accurately capture the emergent, immanent, dynamic and interactional nature of firm-level DC. By embracing a *process* mode of thought, the approach that will

be elaborated, on the contrary, looks at DC as change and movement rather than a static thing or end-state, and acknowledges that what is real is the *becoming* nature of DC.

### **1.1.2 Why a practice-based approach?**

The practice turn in contemporary social theory has stimulated many organization and management scholars to adopt a practice perspective. Having started in the fields of innovation (e.g., Dougherty, 1992), accounting (e.g., Hopwood and Miller, 1994), knowledge and organizational learning (e.g., Blackler, 1993, 1995; Brown and Duguid, 2001) and technology (e.g., Orlikowski, 2000), this gradual movement to a practice turn has also penetrated the strategy arena (e.g., Whittington, 1996, 2002, 2003, 2006; Johnson, Meilin and Whittington, 2003; Jarzabkowski, 2003, 2005; Samra-Fredericks, 2003; Chia and Holt, 2006). Strategy-as-practice takes the view of strategy as a socially accomplished practice. It focuses on concrete actions and interactions of manifold individuals in the everyday life of an organization (Whittington, 1996, 2003, 2006; Jarzabkowski, 2003, 2005). Emerging as an alternative approach to the mainstream view of strategy, a practice-based approach may contribute to explain the microfoundations of firm-level DC (Jarzabkowski, 2005; Regnér, 2008). However, a practice-based approach to DC inquiring only recently has started to receive attention from DC scholars, with few attempts to explain DC as collective practices (e.g., Salvato and Vassolo, 2018; Kurtmollaiev, 2020; Nayak et al., 2020). Among these, only one actually gets inspiration from social theory (in the case, Bourdieu's theory of practice and concept of habitus) to suggest a non-cognitive microfoundational framework of DC (Nayak et al., 2020). In addition, being DC a key strategic concept, it is my understanding that these works lack a clear focus on strategy practice, including their actors, objects, rules and artifacts. The present thesis intends to address this gap by drawing upon Cultural-Historical Activity Theory (CHAT) as a dialectical approach to develop an activity theory framework for effective strategic entrepreneurship practices that contributes to explain the microfoundations of DC.

### **1.1.3 Why a critical perspective?**

Critical management studies provide alternative ways of interrogating, interpreting and making sense of management theory and practice (see Alvesson and Willmott, 1996, 2003, for a review). From a critical theoretical perspective, "management is viewed as a set of practices and discourses embedded within broader asymmetrical power relations, which systematically privilege the interests and viewpoints of some groups while silencing and marginalizing others" (Levy, Alvesson and Willmott, 2003, p. 93). More specifically, critical perspectives on management have

questioned and challenged the constitution of a managerial discourse and practice that privilege and legitimate the monopoly of top management over processes of problem-solving and decision making (Alvesson and Willmott, 1996), aiming at “developing a less managerially partisan position” (Alvesson and Willmott, 2003, p. 1). In this light, Michel Foucault’s poststructuralist approach to power and power relations has been a source of great inspiration for critical management studies. McKinlay, Carter and Pezet (2012) describe Foucault as “perhaps the most important authority in critical management studies” (p. 3). Despite the Foucauldian methodology has inspired many scholars to analyse strategy discourse and practice (Hardy and Thomas, 2014; McCabe, 2010; Ezzamel and Willmott, 2010, 2008, 2004; Knights, 1992; Knights and Morgan, 1995, 1991), a key concept of strategic management – dynamic capabilities – has been neglected within critical strategy scholarship. The present study adopts for the first time a Foucauldian poststructuralist approach to critically investigate the mainstream academic DC discourse.

#### **1.1.4 Three alternative approaches to DC theorizing**

This thesis is concerned with DC theorizing in ways that contrast with but also complement the mainstream view. It approaches DC from three different theoretical lens: process, practice and critical. The process-oriented view explicates the dynamic nature of DC in terms of actions and interactions, movement and change, process and emergence. It examines how a process-based perspective contrasts with the mainstream, static view of DC in respect to certain theoretical underpinnings, assumptions and types of reasoning, addressing in particular the non-representational nature of DC, the principle of immanence, the logic of *otherness* and the focus on *in betweenness*. In addition, it suggests two process-oriented theories, organizational sensemaking and actor-network theory, that can aid our understanding of DC as dynamic and ongoing processes of ordering and organizing.

The practice-based approach explicates DC as a socially embedded construct. It draws upon third-generation CHAT (Engeström, 1987, 2001, 2009) as a dialectical approach to inform how DC emerge and develop from everyday individual and collective actions and interactions that take place within entrepreneurial and strategic organizations. It is proposed an activity theory framework for effective strategic entrepreneurship (SE), in which exploitation and exploration activities are framed as two contradictory and interacting activity systems. The framework suggests that the microfoundations of DC ultimately lie with the tensions and contradictions within and between the two activity systems, which act as driving forces for constant change and innovation.

The critical perspective adopts a poststructuralist Foucauldian approach to examine the power effects of mainstream academic DC discourse. More specifically, it draws upon Dean’s (1995,



1999) governmentality framework to investigate the governmentality of DC discourse in terms of what it seeks to govern, the means by which it proposes to do so, what subjectivities it produces, and the goal it intends to achieve. The governmentality analysis suggests that DC discourse and practices work as a power/knowledge technology that legitimizes the exercise of power by specific individuals and firms, producing certain subjectivities that make them more governable.

## 1.2 Objectives and research questions

The name of this thesis is:

*Bringing Dynamism into Dynamic Capabilities: Process, Practice and Critical Approaches.*

It intends to indicate the objective of the thesis as a whole, which is to bring dynamism into the concept of DC in particular, and into DC scholarship more broadly. To this purpose, three theoretical approaches that represent alternative ways to the mainstream view are employed, each addressing one specific research question.

The process-based lens wishes to explore the ontological question of what is *beyond* DC. The focus is on that which is not immediately observable or visible to the naked eye, and is less known about. More specifically, the thesis addresses the following question: **How can we make sense of dynamic capabilities from a process-based style of thinking?** This question aids our understanding of DC as a dynamic construct, always in flux.

The practice-based approach draws upon third-generation activity theory (Engeström, 2009, 2001) to develop a conceptual framework for effective strategic entrepreneurship that answers to the following question: **How can a dialectical approach to practice inform about the microfoundations of dynamic capabilities?** This question contributes to bringing dynamism into DC by focusing on the dialectic of two contrasting activity systems, exploration and exploitation, and emphasizing what people within and around the organization *do* (DC as practice) rather than what they *have* (DC as possession).

The critical perspective intends to investigate the power/knowledge relations and the associated subjectivities that are embedded in the managerialism of mainstream academic DC discourse. The underlying research question is the following: **How can governmentality be used to analyse the power effects of mainstream academic DC discourse?** Through this question it is intended to bring dynamism into DC scholarship by illuminating researchers and practitioners on how DC discourse works as a technology of power.

### 1.3 Organization of the thesis

The following chapters are organized as follows. Chapter 2 introduces the mainstream view of DC that has prevailed in DC scholarship. It provides a literature review of key theoretical developments around the DC framework, at both the organizational- and the individual-level. It also reviews key empirical studies linking the individual-level approach to organizational strategic change/renewal and firm-level heterogeneity. While the literature review is not intended to provide a comprehensive review of DC scholarship, it elucidates the reader on the most important debates and issues, some of which the thesis contributes to address. In particular, it serves the purpose of highlighting the main limitations of the mainstream view of DC which the thesis wishes to tackle. In Chapter 3, I use the lens of process thinking to analyse the *becoming* nature of DC. More specifically, I propose two process-oriented theories that can aid our understanding of DC as always in flux. In Chapter 4, I adopt a practice-based approach that builds upon CHAT as a dialectical approach to practice that explicates DC as a socially embedded construct. In Chapter 5, I investigate the mainstream academic DC discourse from a Foucauldian critical perspective. Drawing upon Foucault's concept of governmentality, I explore the power/knowledge relations and the associated subjectivities that are embedded in the managerialism of mainstream academic DC discourse. In Chapter 6, I discuss the contributions to theory and practice of the three approaches adopted, and suggest topics for future research.

## Chapter 2 The mainstream view of dynamic capabilities

When the DC framework was introduced by TPS, it intended to explain the sources of competitive and sustainable advantage in fast changing environments. Emerging as an extension of the RBV of the firm, the DC framework shared with the latter the emphasis on internal competences and efficiency. However, its concern with dynamics, focusing on how firms deal with turbulent, uncertain environments, contrasted with the static approach of the RBV. Being related with change, linked to mechanisms of resource reconfiguration and transformation, the DC framework was a breath of fresh air in the strategic management field. In addition, since several questions were left open for investigation in TPS's framing, it inspired many scholars, not only from the strategic management field but also from other research areas, to develop the DC framework further. Among these, the paper of EM, which questioned the nature and consequences of DC originally prescribed by TPS, came to be considered a second seminal contribution (Peteraf et al., 2013). The two contrasting framings, TPS and EM, have stimulated a wide debate within DC scholarship, which despite having more than 20 years is still vigorous and, apparently, far from being closed. The purpose of the present chapter is to examine the mainstream view of DC, discussing the leading debates and approaches that have characterize it, to subsequently critically assess whether it can actually be considered a truly dynamic approach.

This chapter is organized as follows. Firstly, I describe two leading approaches that have governed the field of strategic management: the industrial organization approach that is focused on market power; and the RBV which emphasizes internal efficiency, and was the starting point for the DC framework. Secondly, I review the major theoretical contributions to the mainstream view of DC, while introducing the few works that recently arose as alternative, yet complementary, approaches. I focus in particular on the following topics that have generated important debates within DC scholarship: definition/nature of DC, microfoundations of DC, link with competitive advantage (with special emphasis on the existing tensions and contradictions between the two seminal contributions), theoretical attempts to reconcile the two contradictory framings, typologies of capabilities, organizational- vs. individual-level approach, and the specific role of emotions. Thirdly, I review key theoretical and empirical works on dynamic managerial capabilities (DMC), an individual-level approach that has explored the role of individual managers to the DC construct and the impact of managerial decision-making on firm-level heterogeneity. Finally, I critically discuss the mainstream view of DC.

## 2.1 Theoretical foundations

Throughout the 1980s the work of Porter (1979) on competitive forces has influenced the field of strategy, reflecting a strong industrial organizational approach. According to Porter's (1979, 1980) framework, industry competition and profitability are derived by industry structure which is shaped by five forces: industry established rivals, bargaining power of suppliers, bargaining power of customers, aspiring new entrants and threat of substitute products. The five-forces framework helps firms understanding the industry structure, formulating their competitive strategy and anticipating their profitability (Porter, 1980, 1985). Competitive strategy refers to the actions, either defensive or offensive, that a firm can take to create a defensible position in an industry in the long run, to deal with the outside five forces better than its competitors and thus yield superior performance (Porter, 1980). Porter (1980) describes three generic strategies for a firm to achieve competitive advantage in an industry: overall cost leadership, differentiation focus and cost focus. Hence, Porter's (1980) approach to strategic planning is outside-in, since it is the industry structure shaped by the five forces that determines the competitive rules and the strategies available to firms.

The industrial organizational approach is also mirrored in Shapiro's (1989) article *The Theory of Business Strategy*, which provides a game-theoretic view of business strategy. In Shapiro's (1989) words "[t]he theory of business strategy has taught us that we must look at an industry and understand the type of competition that prevails in it if we are to make any reliable predictions of industry behaviour and performance and how they are affected by an exogenous or structural change" (p. 134). Shapiro's (1989) theory uses game-theoretic models to analyse a wide range of business strategies, such as investment in physical capital, investment in intangible assets, strategic control of information, horizontal mergers, network competition and product standardization, contracting, and other dimensions. It examines strategic moves and countermoves of competitors, and explains a firm's profits as an outcome of market manipulation (Shapiro, 1989).

In the 1990s, a new approach to strategic management emerges: the resource-based view (RBV) of the firm which emphasises the links between firms' internal resources and sustained competitive advantage (Barney, 1991; Peteraf, 1993; Amit and Schoemaker, 1993; Prahalad and Hamel, 1990). The foundations of the RBV originate in the works of Penrose (1959), Rumelt (1984), Teece (1984) and Wernerfelt (1984, 1989). Their perspective supports that a firm's higher returns (and competitive advantage) is determined by superior, unique or critical bundles of resources, assets, capabilities or competences, and the existence of isolating mechanisms<sup>1</sup>.

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<sup>1</sup> Rumelt (1984) introduced the term 'isolating mechanisms' in business strategy to describe the phenomena that impede imitation and defend the competitive position of an individual firm.

This new inside-out approach shifts the heart of strategic management from the traditional analysis of the industry structure to the analysis of the internal organization of the firm, where the firm itself plays a central role. The RBV is nevertheless complementary to industrial organization research and intertwined with organizational economics literature (Mahoney and Pandian, 1992). According with Kor and Mahoney (2000), Penrose's (1959) *Theory of the Growth of the Firm* is actually the first work to bridge strategic management and organizational economics.

The RBV has two critical assumptions, which break up with the assumptions of the industry-focused approach. First, firms are heterogeneous with respect to their resources, and, second, resources are immobile or imperfectly mobile<sup>2</sup> in the short run (Barney, 1991; Peteraf, 1993). On the one hand, heterogeneity means that if firms own different bundles of resources they will employ distinct strategies to outcompete each other (Barney, 1991; Peteraf, 1993). On the other hand, since resources are immobile or imperfectly mobile, firms will not be able (at least in the short run) to replicate their rivals' resources<sup>3</sup> or resource-based strategies (Barney, 1991; Peteraf, 1993). In addition, in order for resources to hold the potential to generate sustained competitive advantages they must be (V)aluable, (R)are, (I)nitiable and (N)on-substitutable, that is, they must verify the VRIN conditions (Barney, 1991). Resources are valuable if they are employed by a firm in a way that will increase its efficiency or effectiveness; resources are rare if they are possessed by only one or few companies; resources are inimitable (or imperfectly imitable) if they are hard to obtain for a competing firm (because of unique historical conditions, causal ambiguity, or social complexity); and resources are non-substitutable when rival companies are not able to find and employ either similar or different substitutes (Barney, 1991). In a subsequent article, Barney (1995) suggests that a firm also needs to have an appropriate organization in place if it wants to fully realize the competitive advantage potential of valuable, rare and costly to imitate<sup>4</sup> resources and capabilities. By organization, the author means formal reporting structures, management control systems, compensation policies and the like. In practical terms, in order to evaluate the strengths and weaknesses of its internal attributes, a firm must ask four questions about its resources and capabilities: the questions of Value, Rareness, Imitability and Organization, which has been referred to as the VRIO framework (Barney, 1995).

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<sup>2</sup> Peteraf (1993) define imperfectly mobile resources as "resources which are tradable but more valuable within the firm that currently employs them than they would be in other employ. Resources are imperfectly mobile when they are somewhat specialized to firm-specific needs" (p. 183).

<sup>3</sup> "Because immobile or imperfectly mobile resources are nontradeable or less valuable to other users, they cannot be bid away readily from their employer" (Peteraf, 1993, p. 184).

<sup>4</sup> Barney (1995) aggregates the reasons for resources and capabilities being costly to imitate into three categories: the firm history, the several small decisions that it has taken over time and its socially complex resources.

An alternative model to the VRIN conditions is proposed by Peteraf (1993). Besides heterogeneity and imperfect mobility of resources, Peteraf's (1993) model requires two additional conditions for a firm to have competitive advantage: *ex post limits to competition* and *ex ante limits to competition*. The former refer to factors that limit the subsequent competition for a superior position (e.g., property rights). The latter are related with imperfections in strategic factor markets prior to any competition which will drive a firm's superior performance (e.g., a superior location). Comparing with the VRIN conditions, one can find some parallelisms. On the one hand, *ex post limits to competition*, as Peteraf (1993) recognizes, may include factors such as imperfect imitability and non-substitutability. On the other hand, *ex ante limits to competition* may be originated in rare resources (such as superior location), if they are acquired or obtained prior to any firm's reaching a superior competitive position.

Amit and Schoemaker (1993) also build on the two fundamental assumptions of the RBV, to advance a behavioral approach to strategic assets which emphasises the impact of managerial decisions (taken under uncertainty, complexity and intraorganizational conflicts) in identifying, developing, protecting and deploying firm-specific strategic assets. Strategic assets are "difficult to trade and imitate, scarce, appropriable and specialized resources and capabilities that bestow the firm's competitive advantage" (Amit and Schoemaker, 1993, p. 36). They further argue that uniqueness and low mobility of strategic assets "stem from imperfect and hard to predict decisions by boundedly rational managers facing high uncertainty (a la Schumpeter), complexity, and intrafirm conflict" (p. 44). Hence, Amit and Schoemaker (1993) complement the RBV by adding discretionary managerial decisions to resource-market imperfections as sources of firm-level heterogeneity. Their study offers insights on how managers may identify, develop and deploy idiosyncratic strategic assets that can be the source of competitive advantage.

Also focusing on managers, Prahalad and Hamel (1990) emphasize their ability and vision in identifying and building core competences that will secure a firm's competitive advantage. The latter consists of its collective knowledge on how to coordinate new diverse production skills and technologies (Prahalad and Hamel, 1990). Managers should further nurture a core-competency attitude, one that looks at core competences as critical corporate resources that should be shared and reallocated across the organization as the firm chases new opportunities (Prahalad and Hamel, 1990). This position is closer to a knowledge-based view of the firm, which focuses on human capital (rather than physical capital) and considers knowledge creation and sharing within an organization (i.e., social knowledge) as its most relevant strategic resource (e.g., Kogut and Zander, 1992, 1996; Conner and Prahalad, 1996; Grant, 1996; Nahapiet and Ghoshal, 1998).

## 2.2 The dynamic capabilities framework

The RBV links a firm’s sustained competitive advantage to its idiosyncratic resources, capabilities and competences (Barney, 1991; Peteraf, 1993; Amit and Schoemaker, 1993; Prahalad and Hamel, 1990). However, the RBV literature has failed to clearly explain what are the sources of such idiosyncrasies, and whether and why are they truly inimitable, particularly in contexts of dynamic environments. To address this gap, TPS<sup>5</sup> proposed the ‘dynamic capabilities’ framework. By ‘dynamic’ TPS refer to “situations where there is a rapid change in technology and market forces, and ‘feedback’ effects on firms” (p. 512). By ‘capabilities’ they mean “the key role of strategic management in appropriately adapting, integrating, and reconfiguring internal and external organizational skills, resources, and functional competences to match the requirements of a changing environment” (p. 515). TPS then define DC “as the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments” (p. 516). TPS further consider that the essence of DC is embedded in specific organizational processes of coordination/integration, learning and reconfiguration.

### 2.2.1 Definition and nature

After TPS, many scholars have attempted to explain the DC construct. While Eisenhardt and Martin (2000) have proposed an alternative to TPS’s original framing, some authors have approached the concept with evolutionary lens (e.g., Zollo and Winter, 2002; Winter 2003), and others have tried to refine, reconcile, extend or clarify previous conceptualizations (e.g., Helfat et al., 2007; Teece, 2007; Barreto, 2010). More recently, Kurtmollaiev (2020) has suggested an action-based approach to DC. Accordingly, many definitions of DC can be found in extant literature. Table 2.1 lists the most cited definitions of DC (according to Schilke, Hu and Helfat’s 2018 review).

Authors	Definition
Teece, Pisano and Shuen, 1997, p. 516	“the firm’s ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments”
Eisenhardt and Martin, 2000, p. 1107	“The firm’s processes that use resources – specifically the processes to integrate, reconfigure, gain and release resources – to match and even create market change. Dynamic capabilities thus are the organizational and strategic routines by which firms achieve new resource configurations”

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<sup>5</sup> It should be noted that despite the work of Teece and colleagues had only been published in journal in 1997 it was first available in working paper format seven years before (see Teece, Pisano and Shuen, 1990). Hence, although TPS is considered the seminal paper on DC, the starting point of DC scholarship can be considered as dating back to 1990.

<b>Authors</b>	<b>Definition</b>
Zollo and Winter, 2002, p. 340	"A dynamic capability is a learned and stable pattern of collective activity through which the organization systematically generates and modifies its operating routines in pursuit of improved effectiveness"
Winter, 2003, p. 991	"Defining ordinary or 'zero-level' capabilities as those that permit a firm to 'make a living' in the short term, one can define dynamic capabilities as those that operate to extend, modify or create ordinary capabilities"
Zahra, Sapienza and Davidsson, 2006, p. 918	"the abilities to reconfigure a firm's resources and routines in the manner envisioned and deemed appropriate by its principal decision-maker(s)"
Helfat et al., 2007, p. 4	"the capacity of an organization to purposefully create, extend, or modify its resource base"
Teece, 2007, p. 1319	"the capacity (1) to sense and shape opportunities and threats, (2) to seize opportunities, and (3) to maintain competitiveness through enhancing, combining, protecting, and, when necessary, reconfiguring the business enterprise's intangible and tangible assets"

**Table 2.1.** Most cited definitions of DC

The paper of EM, entitled '*Dynamic Capabilities: What are They?*', is perhaps the most contradictory and challenging attempt to reformulate TPS's framing, and for that reason it has been regarded as a second seminal contribution (Peteraf et al., 2013). While both seminal papers take the RBV as a basis and conceptualize DC as managerial and organizational processes, EM equate DC to 'best practices' (such as product development, strategic decision making and alliancing), which exhibit commonalities that render DC more equifinal, substitutable and homogeneous than under TPS's formulation. In addition, EM consider that the patterns of DC vary with market dynamism. They distinguish DC in moderately dynamic markets, which "rely heavily on existing knowledge" (p. 1110), from DC in high-velocity markets, which rely "much more on rapidly creating-specific new knowledge" (p. 1111). While in the former case DC are complicated, detailed and analytic processes, in the latter case they are simple, experiential and iterative ones (EM). EM's framing has consequences on whether, how and when DC may be the source of competitive and sustained advantage (see section 2.2.3).

Other authors define DC as routines that change routines (Zollo and Winter, 2002; Winter, 2003). Such position has its grounds on Nelson and Winter's (1982) evolutionary theory of economic change, where routines are the unit of analysis, acting as the genes of the firms that guide economic change. This stance advocates that changes in the existing set of operating routines are brought by superior operating routines which are a source of advantage (Zollo and Winter, 2002). Some authors refer to higher-order DC that head the changes over ordinary capabilities (Winter, 2003; Collis, 1994). While the latter type of capabilities – also called 'zero-level' capabilities (Winter, 2003) – allows "a firm to 'make a living' in the short term, ... dynamic capabilities [are] those that operate to



create, extend or modify ordinary capabilities” (Winter, 2003, p. 991). The routine-based view claims that fast-changing environments are not required for DC to exist (Zollo and Winter, 2002; Winter, 2003), whereas “to have a dynamic capability and find no occasion for change is merely to carry a cost burden” (Winter, 2003, p. 993). In addition, it asserts that not all responses to change constitute an exercise of DC (Winter, 2003). For example, *ad hoc* problem-solving behaviour (e.g., acting in ‘firefighting’ mode) has a non-routine nature and, therefore, does not qualify as DC (Winter, 2003). DC in the form of routinized change efforts and developed through learning processes are necessary to track the environmental change (Zollo and Winter, 2002).

Helfat et al. (2007) build on previous views of DC to develop a clearer definition that is based on capacities, which Teece (2007) further disaggregates into three groups: the capacities to sense, seize and transform. These capacities are linked to entrepreneurial management’s ability, and shaped by organizational processes, procedures, systems and structures (Teece, 2007; Helfat et al., 2007). Teece (2007) agrees with Winter (2003) in that “not all enterprise-level responses to opportunities and threats are manifestations of dynamic capabilities” (p. 1321). Nevertheless, Teece (2007) argues that, in order to build and maintain competitive advantages, companies in open economies need to be able to simultaneously sense and seize opportunities, manage threats, and transform/reconfigure the enterprise business when technology changes occur.

Barreto (2010) suggests an ‘aggregate multidimensional construct’ that attempts to avoid a conceptualization of DC as abilities/capacities or processes/routines. He defines DC as “the firm’s potential to systematically solve problems, formed by its propensity to sense opportunities and threats, to make timely and market-oriented decisions, and to change its resource base” (p. 271). The four dimensions of ‘propensity’ intend to capture ideas from previous research, while the use of the term ‘potential’ aims to cope with the possibility of different intensities of DC existing across firms and to highlight the need of an action in order for DC to yield the envisaged results.

More recently, Kurtmollaiev (2020) distinguishes between abilities and capabilities to develop an action-based approach to DC. Whereas “an ability implies having the proven potential to perform an action (...) a capability means actually doing it regularly” (p. 7). Drawing upon this distinction, the author describes DC as individuals’ “regular actions of creating, extending, and modifying an organizational resource base” (p. 9). In this way the author avoids the misconceptions between capability and ability, while also emphasizing the agency role to the DC construct.

### **2.2.2 Microfoundations**

Since TPS’s seminal paper, many scholars have attempted to explain the microfoundations of DC, yet not reaching a common agreement. The mainstream research assigns the origins and

development of DC to path-dependent processes shaped by asset positions (TPS) or by learning mechanisms (EM), to learning processes of experience accumulation, knowledge articulation and knowledge codification (Zollo and Winter, 2002), to learning modes such as improvisation, trial-and-error, experimentation and imitation (Zahra et al., 2006), to “distinct skills, processes, procedures, organizational structures, decision rules, and disciplines” (Teece, 2007, p. 1319), to dynamic managerial capabilities such as cognition, social capital and human capital (Adner and Helfat, 2003; Helfat and Peteraf, 2015). Despite the different and sometimes contradictory antecedents of DC suggested, researchers in the mainstream tradition have primarily attempted to explain how DC emerge and develop in cognitivist terms (Nayak et al., 2020).

More recently, scholars have suggested that the microfoundations of DC are rooted in social accomplishments (e.g., Argote and Ren, 2012; Salvato and Vassolo, 2018; Nayak et al., 2020). Argote and Ren (2012) present organizational transactive memory (a shared system for collectively encoding, storing, and retrieving knowledge) as a microfoundation of DC. Salvato and Vassolo (2018) propose that firm-level DC originate in the integration of individual employees’ cognition, habit and emotion, and their capacity for productive interpersonal dialogue. The authors offer a multi-level theory that explains DC “as effortful social accomplishments emerging from individual employees’ capacity to leverage interpersonal relationships conducive to productive dialogue” (p. 1723). Differently, Nayak et al. (2020) offer a non-cognitive microfoundational framework of DC, that contrasts with but also complements the mainstream perspective.

Drawing on Bourdieu’s concept of ‘habitus’, these authors “show how firm-specific capabilities originate from the aggregation of everyday adaptive actions and how that gradually becomes the source of a firm’s dynamic capabilities” (p. 283). Nayak et al. (2020) distinguish between *detached action*, *deliberate adaptive action* and non-cognitive *skilled adaptive action*. *Detached action* refers to “abstract analysis and cognitive manipulation” (p. 291) usually undertaken by senior executives and strategy makers, that ends up in routines, procedures and best practices. *Deliberate adaptive action* comprises “problem-solving action that relies on simple rules and heuristics” (p. 291) and “is largely experiential and iterative” (p. 292), corresponding to Teece’s (2012) notions of “entrepreneurial action” and EM’s concepts of “rational heuristics” or “simple, experiential rules” (Nayak et al., 2020). Both types of actions rely on cognitive, analytical, conscious, intentional processes (Nayak et al., 2020). Finally, non-cognitive *skilled adaptive action* is habitus-driven, unconscious and spontaneous responses to everyday situations and opportunities offered by the external environment (Nayak et al., 2020). It comprises the empirical sensitivities, predispositions and shared habitus typically acquired through social practices, that form the substrate of a firm’s DC without which cognitive actions would not be possible (Nayak et al., 2020). The authors claim that prior acquisition of such skilled adaptive actions “through immersion in social practices” (p. 293) is

a prerequisite for “the successful firm, entrepreneur or manager (...) to respond effectively to opportunities proffered by the environment” (p. 293). In their view, such skilled adaptive action explains Teece’s idea of “non-routine” action (Teece, 2007) and the “something else” (Teece, 2012).

### **2.2.3 Link with competitive advantage**

The DC framework was originally proposed to explain the sources of competitive and sustained advantage in fast changing environments (TPS). Even though the RBV was said to have overlooked strategies for exploring new competences and capabilities to respond to environmental dynamism (TPS), DC scholars continued to struggle with the same fundamental questions of the RBV of the firm. Why and how do a firm’s DC become idiosyncratic? Are DC truly inimitable and why? In which conditions may DC be a source of competitive and sustained advantage? These interrelated questions have been widely discussed by DC scholars, leading to many tensions and contradictions in DC scholarship, mostly rooted in the contrasting DC framings proposed by TPS and EM (Peteraf et al., 2013). Although some scholars have attempted to reconcile the existing tensions and contradictions between both framings (e.g., Peteraf et al., 2013; Di Stefano, Peteraf and Verona, 2014; Nayak et al., 2020), the topic is far from being exhausted.

#### **Idiosyncrasies**

In TPS’s view, the idiosyncratic nature of DC lies on a firm’s distinctive managerial and organizational processes, shaped by its specific asset-position and evolutionary path. Processes refer to “the way things are done in the firm, or what might be referred to as its routines, or patterns of current practices and learning” (TPS, p. 518); they encompass firm-specific coordination or integration routines, learning processes and capacity to reconfigure and transform internal and external activities. Positions denote a firm’s “current specific endowments of technology, intellectual property, complementary assets, customer base, and its external relations with suppliers and complementors” (TPS, p. 518). Paths mean “the strategic alternatives available to the firm, and the presence or absence of increasing returns and attendant path dependencies” (TPS, p. 518). For TPS, idiosyncratic DC typically have to be built and cannot be acquired. In contrast, EM claim that DC are “certainly idiosyncratic in their details” (p. 1108) but exhibit “common features that are associated with effective processes across firms” (p. 1108). EM conceptualize DC as organizational processes, such as product development, alliance and acquisition routines, strategic decision making and knowledge creation, which exhibit commonalities, generally known as ‘best practices’. For example, product development processes, whatever the firm undertaking it, will always involve “the

participation of cross-functional teams that bring together different sources of expertise” (p. 1108), “routines that ensure concrete and joint experiences among team members, such as working together to fix specific problems or participation in brainstorming sessions” (p. 1109) and “extensive external communication that is often facilitated by strong or ‘heavyweight’ team leaders” (p. 1109). At the same time, EM acknowledge that common features do not “however, imply that any particular dynamic capability is exactly alike across firm” (p. 1109). For example, while external linkages are a common feature of successful knowledge creation processes, these linkages “can take varied forms including informal personal relationships, relationships driven by promotion criterion, and formal practices” (EM, p. 1109). Hence, in spite of exhibiting commonalities, “effective DC can differ in form and details” (EM, p. 1110)

Besides not truly idiosyncratic, in EM’s view DC are also equifinal. Although the authors agree with TPS in that DC are path dependent in their emergence, EM argue that the same DC may be developed from different starting points and multiple paths (equifinality). Moreover, according to EM, commonalities not only make DC more equifinal but also more substitutable across different contexts. EM argue that “Dynamic capabilities are substitutable because they need to have key features in common to be effective, but they can actually be different in terms of many details” (p. 1110). However, it is unclear in EM’s argument why commonalities are required for DC to be effective, or why the idiosyncratic details are irrelevant for effective DC. Actually, and against their own argument, EM acknowledge that “Sometimes even the managers themselves do not know why their dynamic capabilities are successful” (EM, p. 1114). EM illustrates the difficulty in explaining effective/successful DC with a quote from the CEO of a leading biotech firm ““We have the best research process in the industry, but we don’t know why.”” (p. 1114).

### **Inimitability**

TPS advocate that DC can only be idiosyncratic, and hence a source of competitive and sustained advantage, if they are difficult to replicate and difficult to imitate. “Replication involves transferring or redeploying competences from one concrete economic setting to another” (TPS, p. 525). Embodied productive knowledge, the tacit nature of certain organizational routines or contextual differences are examples of factors that can make certain capabilities difficult to replicate (TPS). “Imitation is simply replication performed by a competitor” (TPS, p. 526), and it tends to be harder than self-replication (TPS). Additional factors that make imitation of certain capabilities difficult include intellectual property rights (TPS). How easy a firm’s DC can be imitated by competing firms will then dictate the sustainability of its competitive advantage (TPS).

In contrast, by describing DC as equifinal, inimitability is not pertinent in EM’s framing. EM advocate that “firms can gain the same capabilities from many paths, and independent of other firms.

So, whether they can imitate other firms or move resources is not particularly relevant because managers of firms can discover them on their own” (p. 1110). In other words, equifinality makes inimitability irrelevant, since “there are multiple paths (equifinality) to the same dynamic capabilities” (p. 1109) and “firms can develop these capabilities from many starting points and along different paths” (p. 1116).

### **(Sustained) competitive advantage and boundary conditions**

DC scholars have different views on the links between DC and competitive advantage. On the one side, we have scholars who advocate for a direct link. TPS explicitly attribute to DC the ability to achieve and sustain new forms of competitive advantage. Zollo and Winter (2002) assert that “superior operating routines are always a source of advantage” (p. 341). Teece (2007) reiterates that DC are without doubt relevant to achieve and sustain competitive advantage, particularly in globally competitive environments. On the other side, we have other scholars who contend for an indirect link. EM consider that the value of DC for competitive advantage “lies in the resource configurations they create, not in the capabilities themselves” (p. 1146). In a similar vein, Bowman and Ambrosini (2003) argue that it is the resource base that is directly linked to firm performance, while the DC may only have an indirect effect. Likewise, Zott (2003) claims that the effects of DC on firm performance depend on alternative resource configuration. Zahra et al. (2006), as well, argue for an indirect link when they propose that the relationship between DC and performance is mediated by the quality of ordinary capabilities and organizational knowledge. Helfat et al. (2007) also suggest that DC “do not necessarily lead to competitive advantage” (p. 14), indicating several conditions and factors that may affect competitive and sustained advantage.

Perhaps the most interesting debate about the links between DC and competitive and sustained advantage is the one between TPS’s and EM’s framings. In TPS’s view, idiosyncratic and difficult-to-imitate/replicate DC are a source of competitive and sustained advantage. EM challenge this position and claim that “dynamic capabilities per se can be a source of competitive, but not sustainable, advantage” (p. 1110). However, how DC can be a source of temporary competitive advantage is not clear in EM’s paper. If we accept the RBV logic that firm-level heterogeneity is a required condition for a competitive advantage to exist (Barney, 1991; Peteraf, 1993), EM’s arguments seem to be somewhat contradictory. On the one hand, EM argue that the “existence of common features among effective dynamic capabilities does not ... imply that any particular dynamic capability is exactly alike across firms” (p. 1109). The last part of this statement seems to suggest that DC could be somewhat heterogeneously distributed across firms. However, if DC’s idiosyncratic details are “unimportant” (p. 1114), as EM argue, they would not be a source of ‘important’ heterogeneity. On the other hand, EM claim that DC are “more homogeneous ... than is usually

assumed” (p. 1116), precisely because of the existence of common features. In the RBV logic, if DC are not heterogeneous in the short term, how can they be a source of any temporary competitive advantage? While EM argue that commonalities “violate the RBV assumption of persistent heterogeneity across firms” (p. 1117), they are not able to explain in a convincingly way why and how heterogeneity may occur in the short term.

The topic of sustainability of competitive advantage is where EM clearly disagree with TPS. While TPS’s framing satisfies the VRIN conditions (Barney, 1991), in EM’s view, although DC are “typically valuable” (p. 1110) and “somewhat rare” (p. 1111), “equifinality renders inimitability ... irrelevant to sustained advantage” (p. 1110) and also makes DC “more substitutable ... across different contexts” (p. 1110). Hence, by violating the VRIN conditions of inimitability and non-substitutability, DC cannot be a source of sustained advantage. For EM the potential for long-term competitive advantage “lies in using dynamic capabilities sooner, more astutely, or more fortuitously than the competition to create resource configurations that have that advantage” (p. 1117). EM then conclude that “long-term competitive advantage lies in the resource configurations that managers build using dynamic capabilities, not in the capabilities themselves” (p. 1117).

EM further explain the impact of market dynamism on sustainability of competitive advantage. While the TPS framework was developed to deal with fast changing environments, EM distinguish DC in high-velocity markets and in moderately dynamic markets. In moderately dynamic markets, DC are “complicated, detailed, analytic processes that rely extensively on existing knowledge and linear execution” (p. 1106) with “predictable outcomes” (p. 1106). In high-velocity markets, DC “are simple, experiential, unstable processes that rely on quickly created new knowledge and iterative execution” (p. 1106) with “unpredictable outcomes” (p. 1105). Hence, in moderately dynamic markets DC are “easily sustained and even inertial” (EM, p. 1113), while in high-velocity markets DC “become difficult to sustain” (EM, p. 1113). EM further assert that in the former “competitive advantage is destroyed from outside the firm” (p. 1113), while in the latter “the threat to competitive advantage comes not only from outside the firm, but also more insidiously from inside the firm through the potential collapse of dynamic capabilities” (EM, p. 1113). Because the patterns of effective DC vary with the market dynamism, EM conclude that the RBV in which the TPS framework relies on “encounters a boundary condition in high-velocity markets where the duration of competitive advantage is inherently unpredictable, time is central to strategy, and dynamic capabilities are themselves unstable” (p. 1118). By questioning the applicability of TPS’s framing in fast changing environments, EM hit the heart of TPS’s contribution.

#### 2.2.4 Reconciling the two contradictory framings

The tensions and contradictions between TPS and EM, described by Peteraf et al. (2013) as the '*elephant in the room*', have inspired many scholars to find ways to reconcile the two contrasting framings. Peteraf et al. (2013) advocate that, in moderately dynamic markets, "it is logically possible for dynamic capabilities in the form of best practices to give rise to a competitive advantage or even a sustainable advantage under contingent, exceptional circumstances" (p. 1403). Contingent conditions arise from idiosyncrasies in 'best practices', such as "differences in experience, competitive context, added value, and timing" (Peteraf et al., 2013, p. 1406). In turn, in high-velocity markets, where DC adopt the character of simple rules and unstable processes (EM), Peteraf et al. (2013) indicate several other conditional cases that can make DC to reach greater stability and therefore verify the VRIN conditions of sustainable advantage. These cases include hierarchy types of DC, possible variations within simple rules and processes, or DC necessarily belonging to a 'dynamic bundle' of resources and capabilities that comprises more stable elements.

Whereas Peteraf et al.'s (2013) efforts to reconcile TPS and EM framings are appreciated, the effectiveness of their contingent-based approach to explain DC as direct sources of sustainable advantage may be questioned. In moderately dynamic markets, when Peteraf et al. (2013) indicate the ZARA case to point out differences in timing, it seems that the long-term competitive advantage does not lie in the "practice of fast fashion" itself, but in using it "long before other firms" (p. 1403). In high-velocity markets, when Peteraf et al. (2013) suggest that "simple rules and unstable processes may form a part of a dynamic bundle of resources and capabilities" (p. 1406), it looks like that the value of DC (framed as simple rules) to support a sustainable advantage can only come from their combination with other resources and capabilities, but not from the use of DC alone. As such, Peteraf et al.'s (2013) contingent-based approach tends to corroborate EM's view that DC "are necessary, but not sufficient, conditions for competitive advantage" (p. 1106) and that the potential for long-term competitive advantage does not lie in the capabilities themselves but "in using dynamic capabilities sooner, more astutely, or more fortuitously than the competition" (EM, p. 1117). The potential of Peteraf et al.'s (2013) contingent-based approach to unify the field of DC is therefore hampered by two different sets of assumptions which they want to preserve, but that are contradictory in their essence. By not refuting the existence of commonalities among DC in moderately dynamic markets, nor their simple and unstable nature in high-velocity markets, Peteraf et al. (2013) actually accept the assumptions of EM's framing, and fail to unequivocally demonstrate TPS's view of DC being a direct source of sustainable competitive advantage.

Another attempt to reconcile TPS and EM framings comes from Di Stefano et al. (2014). Building upon Peteraf et al.'s (2013) idea of a 'dynamic bundle' that comprises both complex and

simple routines, Di Stefano et al. (2014) propose the ‘organizational drivetrain’ model as a complex and dynamic system in which both type of routines operate simultaneously. While top managers are responsible for selecting and controlling simple rules, the latter “enable and constrain the set of complex routines at the organizational level” (p. 320). The authors consider that such system would be difficult to imitate and replicate and therefore may be “the real source of sustainable competitive advantage” (p. 321) in high velocity markets. The ‘organizational drivetrain’ model offers an improved version of Peteraf et al.’s (2013) idea of a ‘dynamic bundle’, namely by proposing an interacting mechanism between simple and complex routines, and linking individual-level and organizational-level or analysis (see 2.2.6). However, both the ‘dynamic bundle’ and the more sophisticated ‘organizational drivetrain’ raise additional questions such as: Is there an appropriate proportion between simple rules and complex routines so that a sustainable advantage can be assured? If so, how exactly, in practical terms, do firms reach an appropriate balance? Does such a balance change across firms and/or over time? These questions deserve further investigation.

Nayak et al.’s (2020) also examine the tensions and contradictions in DC scholarship to propose a non-cognitive microfoundational framework of DC. The authors particularly focus on the tensions surrounding the simple/complex, explicit/tacit nature of DC in both EM and TPS/Teecian accounts of DC (e.g., Augier and Teece, 2009; Teece, 2012). For Nayak et al. (2020) these tensions exist because EM, Teece and colleagues struggle to explain in cognitivist terms how DC are acquired in the first instance. In contrast, the suggested non-cognitivist approach, which sees DC as originated in idiosyncratically refined sensitivities and predispositions rather than stemming from cognitively-based routines, best practices, rules or heuristics, contributes to overcome the existing tensions, and to explain DC as sources of sustainable competitive advantages (Nayak et al., 2020).

### **2.2.5 Typologies of capabilities**

An important debate concerns the typologies of organizational capabilities, often framed in hierarchal terms. Collis (1994) suggests four categories of capabilities. The first category are those abilities which allow a firm to perform its basic functional activities. In view of TPS’s framing, they constitute the firm’s existing resources and functional competences. The second category concern to capabilities that generate dynamic improvements in the firm’s functional activities. The third category are also related to dynamic improvements, but in a more strategic way, as they enable a firm “to recognize the intrinsic value of other resources or to develop novel strategies before competitors” (p. 145). Both second and third categories capabilities correspond to TPS’s notion of DC, as they operate on a firm’s resources and functional competences. The fourth category is called meta-capabilities or higher-order capabilities, and they include that kind of future winner capability that



is able “to develop the capability to develop the capability that innovates faster (or better), and so on” (p. 148). Hence, they operate on DC. Collis (1994) describe meta-capabilities as a variety of learning-to-learn capabilities. These meta-capabilities tend to *ad infinitum*, and in the view of Collis (1994), their development carries the potential for a firm to outperform its competitors. In a similar vein, Danneels (2002) suggest a hierarchical distinction between first-order competences and second-order competences. The former “involve the tangible and intangible resources needed for producing a particular product or addressing a certain group of customers” (p. 1112). The latter reflect a firm’s ability to identify, evaluate, and incorporate new first-order competences into the firm (Danneels, 2002). In a subsequent paper, Danneels (2008) defines “a second-order competence as the competence to build new first-order competences” (p. 520). In light of TPS’s framing, first-order competences would correspond to a firm’s resource base, while second-order competences can be understood as a firm’s DC. Winter (2003) also proposes a hierarchy for organizational capabilities, but split into three levels: zero-level (also called ‘ordinary’), first-order (also termed ‘dynamic’) and higher-order capabilities. For Winter (2003), zero-level ‘ordinary’ capabilities are those that allow a firm to earn a living; they correspond to Collis’ (1994) first category, constituting a firm’s resource base in TPS’s terminology. First-order ‘dynamic’ capabilities are those that have the capacity to change or modify the ordinary ones; they match TPS’s concept of DC which Collis (1994) disaggregate into second and third categories. Similarly to Collis (1994), Winter’s (2003) higher-order capabilities operate on DC, namely through organizational learning. Zahra et al. (2006) likewise separate DC from substantive (or ‘ordinary’) capabilities. They define substantive capabilities as “the set of things that a firm can do” (p. 926). In turn, DC are those that enable a firm to change or reconfigure its existing substantive capabilities. Zahra et al. (2006) describes the relationship between the two types of capabilities as bi-directional, insofar as DC affect and are affected by substantive capabilities.

Building on the works of Danneels (2002), Winter (2003) and Zahra et al. (2006), Ambrosini, Bowman and Collier (2009) further suggests three levels of DC: incremental, renewing and regenerative. Incremental DC are concerned with continuous improvement of the resource base; they are required for a firm to maintain its rent stream in relatively stable environments. Renewing DC are concerned with modifying the resource base in such a way that allows a firm to sustain its rent generation in changing environments. The main difference is that, while the former only improve the extant resource base, the latter create or introduce new resources to the resource base, or combine the existing ones in new ways. Regenerative DC are associated with the capacity of a firm to “move away from previous change practices towards new dynamic capabilities” (Ambrosini et al., 2009, p. S15). While the first two types of DC fall under TPS’s concept of DC, regenerative DC are equivalent to Collis’ (1994) or Winter’s (2003) higher-order capabilities.

### **2.2.6 Organizational-level vs. individual-level approaches**

In respect to the level of analysis, mainstream DC scholarship is divided over whether the focus is on organizations or on individual managers. More specifically, the organizational-level view develops the DC framework around managerial and organizational processes and routines (e.g., TPS; EM; Zollo and Winter, 2002; Zahra et al., 2006; Helfat et al., 2007; Teece, 2007). In turn, the individual-level approach interprets DC as decision-making activities reliant on the competences and skills of executives and top managers (e.g., Adner and Helfat, 2003; Helfat and Peteraf, 2015).

DC scholars who have adopted an organizational-level approach often recognize the importance of individual managers to the DC construct. Zahra et al. (2006), for example, by defining DC as a firm's abilities to reconfigure resources and routines "in the manner envisioned and deemed appropriate by its principal decision-maker(s)" (p. 918) and considering managers and entrepreneurs as "key agents of change" (p. 922) emphasize the managerial role to the DC construct. Similarly, Teece (2007) claim that sensing, seizing and reconfiguring are "key strategic functions of executives" (p. 1341) and highlight the strategic entrepreneurial management function embedded in DC. In a similar vein, Augier and Teece (2009) assign managers (either entrepreneurs or intrapreneurs) a leadership function in processes of strategic renewal. They maintain that "the manager/entrepreneur must articulate goals, help evaluate opportunities, set culture, build trust, and play a critical role in the key strategic decisions" (p. 417). Teece (2012) further emphasizes the "critical role for the entrepreneurial manager in both transforming the enterprise and shaping the ecosystem through *sui generis* strategic acts that neither stem from routines (or algorithms) nor need give rise to new routines" (p. 1395). He describes entrepreneurial management as having "little to do with standardized analysis and optimization [being] more about figuring out the next big opportunity or challenge and how to address it, rather than maintaining and refining existing procedures" (p. 1398). Teece (2014) even acknowledges that DC "reside, at least in part, in the managerial, entrepreneurial, and leadership skills of the firm's top management, and in management's ability to design, develop, implement, and modify" (p. 16) organizational routines. Despite recognizing the managerial role, the mainstream organizational-level approach, because it associates the microfoundations of DC to managerial and organizational processes and routines, does not explore how individual managers contribute to the development of DC. That is the focus of the individual-level approach, which will be briefly elaborated in the following section.

## **2.3 Dynamic managerial capabilities**

As Felin and Foss (2005) note "Organizations are made up of individuals, and there is no organization without individuals" (p.441). As such, in order "to fully explicate organizational ...

capabilities ... one must fundamentally begin with and understand the individuals that compose the whole, specifically their underlying nature, choices, abilities, propensities, heterogeneity, purposes, expectations and motivations” (Felin and Foss, 2005, p.445). The individual-level approach to DC is interested in understanding the role of individual managers to the DC construct.

### **2.3.1 The role of individual managers**

The study of DC at the individual level – with individuals (often managers) as key actors in directing organizational and strategic change – started with the case studies of NCR Corporation (Rosenbloom, 2000) and Polaroid (Tripsas and Gavetti, 2000). These two works put in evidence the role of leadership and managerial cognition, respectively, to face and adapt to situations of radical external technological changes. While NCR’s case study illustrates how new CEOs were able to develop DC that permitted the company to successfully entry into the computer industry (Rosenbloom, 2000), Polaroid’s case shows how senior management prior cognitions and beliefs about the company strategy impeded the firm to develop new capabilities to successfully enter into the digital imaging market, and to adapt its business model accordingly (Tripsas and Gavetti, 2000).

These two works mark the inception of scholarship on what was coined by Adner and Helfat (2003) as *Dynamic Managerial Capabilities* (DMC). Adner and Helfat (2003) introduced the concept to refer to the “capabilities with which managers build, integrate, and reconfigure organizational resources and competences” (p. 1012). Similarly, Hefalt et al. (2007) describe DMC as “the capacity of managers to purposefully create, extend, or modify the resource base of an organization” (p. 24). This capacity includes ‘asset orchestration’, which involves search and selection (such as designing business models and selecting investments) and configuration and deployment (such as nurturing change and innovation processes) (Helfat et al., 2007). The authors then recognize that (strategic) managers play a critical role in asset orchestration, since it “requires astute decision making and entrepreneurial capacity” (p. 19). Beck and Wiersema (2013) clarifies how DMC influence managerial decisions regarding the composition of the firm’s resource portfolio, which will further shape corporate and competitive strategy decisions.

O’Reilly and Tushman (2008) explain DMC as resulting “from actions of senior managers to ensure learning, integration, and, when required, reconfiguration and transformation – all aimed at sensing and seizing new opportunities as markets and technologies evolve” (p. 189). They claim that for organizations to thrive in the long-run, their senior leaders need to be ambidextrous. *Ambidexterity* is the capacity of senior leaders to reconfigure resources to explore mature markets and technologies while simultaneously exploiting emerging ones (O’Reilly and Tushman, 2008). It requires “a senior leadership team with the cognitive and behavioral flexibility to establish and

nurture both” (O’Reilly and Tushman, 2008, p. 190) exploration and exploitation. Beck and Wiersema (2013) also highlight the necessity of a firm’s leadership team to develop the required DMC over time in order for strategies to succeed, particularly when market and technological conditions change. This idea that collective DMC matter has been studied by some scholars. For instance, Martin (2011a) highlights the importance of *episodic teams* of senior executive leaders of business units as important sources of DMC in complex multibusiness organizations. An episodic team is “a stable group of individuals who operate autonomously in their respective domains of responsibility much of the time, but in certain circumstances act collectively and interdependently to achieve a common objective” (p. 136). Martin (2011b) further proposes a practice theory of executive leadership groups, which explains how the former’s capacity for taking strategic resource actions (described as the essence of DMC) may impact organizational outcomes.

Kor and Mesko (2013) introduce the concept of *top management team absorptive capacity* to describe “the collective capacity of managers to absorb new knowledge and combine their existing knowledge repositories with new insights, assumptions, and knowledge systems” (p. 237). They argue that this collective capacity can be developed and nurtured through two key functions of the CEO: configuration of executive team competency profile, and orchestration of individual efforts and group interactions within the senior executive team. In addition, successful accomplishment of these key functions will enhance the CEO’s own DMC (Kor and Mesko, 2013). Submitted to this interactive system that shapes the DMC of both the CEO and the executive team, Kor and Mesko (2013) further link stronger collective capacity to greater ability to reviewing the firm’s dominant logic (embedded in the firm’s routines, procedures and resource commitments) in order to better adapt to external changes (evolutionary fitness).

### **2.3.2 DMC as sources of firm-level heterogeneity**

Most of DMC scholarship follows Felin and Foss’ (2005) view of firm-level heterogeneity being rooted “in the past decisions of individuals, notably in the initial conditions, decisions or even the characteristics of the founders and individuals” (p. 449). Adner and Helfat (2003) suggest that differences in DMC are relevant sources of heterogeneity in firm performance under conditions of change. They further propose that DMC are underpinned by three key factors: managerial cognition, managerial human capital, and managerial social capital, which may contribute either separately or interactively to differences in DMC. “Managerial cognition refers to the managerial beliefs and mental models that serve as a basis for decision making” (Adner and Helfat, 2003, p. 1021, see also Walsh, 1995). “Human capital refers to learned skills that require some investment in education, training, or learning more generally” (Adner and Helfat, 2003, p. 1021; see also Becker, 1964). “Social capital

results from social relationships and can confer influence, control, and power” (Adner and Helfat, 2003, p. 1021; see also Adler and Kwon, 2002).

Building upon Adner and Helfat (2003) and the RBV, Beck and Wiersema (2013) clarify how DMC have influence on firm performance through executive strategic decision making. They argue that differences in DMC are driven by the interaction effect of innate abilities and unique life experiences on all three underpinning factors: managerial cognition, managerial human capital, and managerial social capital. Since strategic leaders have different DMC, their strategic decisions on how the resources will be used will vary accordingly, which in turn will generate unique resource portfolio composition and configuration (Beck and Wiersema, 2013). Consequently, firms will pursue distinctive strategies and achieve different performance outcomes (Beck and Wiersema, 2013). In addition, Beck and Wiersema (2013) emphasize that the decisions made about a firm’s resource portfolio are only the visible part of a dynamic process that resides behind the strategic decision making, which is influenced by changes in the firm leaders’ DMC, such as “lessons learned through experience” (p. 416).

Kor and Mesko (2013) link the work of Adner and Helfat (2003) with Prahalad and Bettis’s (1986) concept of firm’s dominant logic to develop knowledge about the top management team’s DMC. They claim that the three attributes of DMC – human capital, social capital and cognition – work jointly to originate managers’ dominant logic. “This logic represents management’s view of the world, where the firm stands in its business environment, and what it ought to be doing” (Kor and Mesko, 2013, p. 235). As managers’ dominant logic guides managerial decisions over time, it “becomes embedded in a firm’s routines, procedures, and resource commitments” (p. 236), which in turn will influence a firm’s resource and competency configuration (Kor and Mesko, 2013). In other words, managerial preferences, expectations and perceptions will be reflected in managerial decisions that will ultimately shape a firm’s strategy.

Helfat and Martin (2015a) address the critical role of systematic, patterned behaviour of DMC for creativity and innovation. More specifically, the authors explain how different skills, knowledge and prior experience (managerial human capital), networks and social ties (managerial social capital), and mental models (managerial cognition), either separately or interactively, may shape managerial capacity to sense and seize opportunities and to reconfigure resources for technological innovation and business model innovation. Another theoretical contribution specifically focusing managerial cognition capabilities comes from Helfat and Peteraf (2015). These authors “identify specific types of cognitive capabilities that are likely to underpin DMC for sensing, seizing, and reconfiguring, and explain their potential impact on strategic change of organizations” (p. 832). Drawing upon Adner and Helfat (2003) and Teece (2007), Helfat and Peteraf (2015) specifically examine “the role of attention and perception in relation to sensing, the role of problem

solving and reasoning in relation to seizing, and the role of language and communication as well as social cognition in relation to reconfiguring” (p. 845). In the context of ambidexterity capabilities, O’Reilly and Tushman (2008) also identify cognitive complexity and behavioral flexibility as necessary conditions for senior leaders to simultaneously explore mature markets/technologies and exploit emerging ones, as a way for adapting over time.

### **Empirical evidence**

Empirical research on DMC as facilitators of strategic change shows the impact of managerial decisions, choices and interventions on firm performance and strategic renewal within the context of external change (e.g., Adner and Helfat, 2003; Peteraf and Reed, 2007; Sirmon and Hitt, 2009; Eggers and Kaplan, 2009; Salvato, 2009; Martin, 2011a). However, empirical evidence linking the several underpinning factors of DMC to heterogeneity in firm performance or strategic renewal is still scarce. Still, some empirical studies suggest that such heterogeneity may be driven by differences in managerial cognition (e.g., Eggers and Kaplan, 2009), managerial human capital (e.g., Sirmon and Hitt, 2009), or managerial social capital (e.g., Prashantham and Dhanaraj, 2010).

#### Heterogeneity in firm performance

Adner and Helfat (2003) examined the impact of strategic decisions of corporate managers in the US petroleum industry over 21 years, a time period that was characterized by external technological changes, and concluded that different “managerial decisions at the corporate level are associated with heterogeneity in business performance” (p. 1012). Based on these findings, they suggest that the sources of heterogeneity in managerial decisions in contexts of change, and consequently in business performance, may be the DMC. They further discuss (theoretically) how managerial cognition, human capital and social capital, may explicate heterogeneity in managerial decisions, which in turn may lead to variance in business performance.

Peteraf and Reed (2007) studied the effects of the deregulation of the U.S. airline industry on managerial choice. The authors distinguish between two types of strategic choices: those concerning operations (such as routes and departures) and those regarding administrative practices (such as organizational processes). The difference between operational and administrative choices is related with how they were constrained by regulation: either directly or indirectly, respectively (Peteraf and Reed, 2007). The authors found that when constrained on operational choices because of regulation, managers adapted their behavior by choosing practices and processes that fit the constrained choices, allowing them to run the organization efficiently. Following deregulation, managers chose new administrative practices not because they were the ‘best practices’ that were not previously available to them, but because they fit the new derestricted conditions, leading to

superior efficiency (Peteraf and Reed, 2007). Hence, their findings suggest that “when managers find that their discretion is limited in one arena, they adapt by exercising their discretion in a less constrained arena” (p. 1106). Moreover, “this type of behavior might also be characterized in terms of how managers develop and exercise a dynamic capability for maintaining fit over changing conditions” (p. 1107).

Sirmon and Hitt (2009) build on Helfat et al.'s (2007) concept of ‘asset orchestration’ (a key dimension of DMC) to explore how the fit between managers’ resource investment and deployment decisions (two strategic functions of asset orchestration) impact on firm performance. Based on a sample of US banking firms, they found negative effects on firm performance when investments in human or physical capital deviate from the norms set by rivals, and that optimal results are achieved when “resource investment and deployment decisions ‘fit,’ regardless of the investment level (i.e., high or low)” (p. 1390). By demonstrating that “how managers orchestrate firm assets, that is, how they select (e.g., acquire/develop via investment) and deploy (e.g., bundle/leverage) resources, significantly affects firm success” (p. 1391), Sirmon and Hitt (2009) contribute to expand our knowledge on the effects of DMC on firm performance. Moreover, their study emphasizes the importance of human capital as underpinning DMC.

While the aforementioned empirical studies examined the impact of DMC at executive individual-level, Martin (2011a) highlighted the ‘teamlike’ behaviour at executive group-level (collective actions and interactions) as relevant sources of heterogeneity in DMC. In the context of multibusiness organizations, operating in the highly dynamic US software industry, Martin (2011a) found an association between episodic multibusiness executive teams and higher firm performance. This evidence suggests the importance of executive group-level dynamic capabilities “to collectively sense, seize, and formulate novel resource actions, and thereby adapt/transform their BUs, and likewise the firm” (Martin, 2011a, p. 135).

#### Heterogeneity in strategic renewal

Since “the processes of organizational and strategic renewal are essential for the long-term survival and prosperity of the business firm” (Augier and Teece, 2009, p. 415), researchers have also examined the effects of DMC on strategic renewal. Strategic renewal may be defined as “the processes, content, and outcome of refreshment or replacement of attributes of an organization that have the potential to substantially affect its long-term prospects” (Agarwal and Helfat, 2009, p. 282). Eggers and Kaplan (2009) used CEO letters to shareholders of communication technology incumbent firms to investigate how managerial cognition may affect heterogeneity in strategic renewal, specifically heterogeneity in the timing of entry into a new emerging technology (the fiber-optics market). They focused on CEO’s attention toward three different directions: the emerging

technology, the existing technology and the affected industry, and also considered the interactions between organizational orientation and managerial cognition. Their findings suggest that “managerial cognition is indeed associated with differences in the timing of entry into a new product market” (p. 473). Moreover, their study shows that the effect in the timing of entry accelerates when the CEO attention focus on the emerging technology and the affected industry, while it slows down when the focus is on the existing technology. In addition, their findings reveal that the greater the level of firms’ capabilities and assets toward the affected industry, the more important is the accelerative effect of CEO cognition in relation to the emerging technology. Hence, Eggers and Kaplan (2009) concluded that, in the presence of new technological opportunities, both managerial cognition and organizational capabilities matter for strategic renewal.

The empirical evidence provided in Salvato’s (2009) case study of Alessi sheds light on the role of intentional managerial activities for organizational capabilities renewal and competitive advantage. By studying the processes of new product development within the Italian firm Alessi over a 15-year period, Salvato’s (2009) findings suggest that outstanding performance is caused by concrete actions of individuals within and around the organizations. More specifically, his findings suggest that “higher-level competence for strategic renewal is (...) achieved when lower-level skills and routines are learned, perfected and maintained through everyday practice” (p. 402). Hence, DMC seem to emerge from the gradual improvement of lower-level organizational capabilities, which simultaneously allow managers to focus attention on threats and opportunities that are relevant for strategic change (Salvato, 2009). That is, mindful ordinary actions result in routinized and refined practices, which in turn increase the quality and sustain the attention of managers to deal with dynamic environments (Salvato, 2009).

Prashantham and Dhanaraj (2010) explored the effects of social capital of founders of new ventures on the latter’s internationalization strategy. Social capital has been considered one relevant factor underpinning DMC (Adner and Helfat, 2003). Since the setting of Prashantham and Dhanaraj’s (2010) study “is the Bangalore software industry, a technology based, high-velocity environment in an emerging market, India” (p. 970), it is reasonable to accept that the study provides evidence of the effects of social capital in processes of strategic renewal within the context of highly dynamic markets. Hence, despite not explicitly recognized in the paper, Prashantham and Dhanaraj (2010) contribute to the study of DMC as facilitators of strategic change. More specifically, by observing “the entrepreneurial process in new ventures and the actions entrepreneurs take to build and exploit social networks internationally” (p. 968), Prashantham and Dhanaraj (2010) examined how social capital may drive international growth and expansion over time. Their findings suggest that founders have different levels of initial social capital, which is associated with their previous experience in globally-connected environments. While this factor may explain heterogeneity in DMC, it is not



enough to explain differences in international growth. Prashantham and Dhanaraj (2010) suggest that achieving international growth of new ventures requires conscious action by entrepreneurs through effective network learning opportunities.

### **2.3.3 The specific role of emotions**

With few exceptions, the role of emotions to the DC construct has been seldom explored. As Zott and Huy (2019) indicate, although scholarship has addressed several aspects of managerial cognition (see Helfat and Martin, 2015b, for a review), “Less is known about emotion-related processes and their importance for dynamic managerial capabilities” (p. 29). Huy (2005) was perhaps the first author to bring emotions into DC scholarship. He elaborated on how emotion management can help organizations to achieve strategic change and renewal. He argues that the ability of organizations to realize continuous or radical change to face external changes is rooted in developing emotion-based dynamic capabilities. “These emotion-based dynamic capabilities express or arouse distinct emotional states such as authenticity, sympathy, hope, fun, and attachment to achieve specific organizational goals important to strategic renewal, such as receptivity to change, the sharing of knowledge, collective action, creativity, and retention of key personnel” (Huy, 2005, p. 3). Differently, Hodgkinson and Healey (2011) uses contemporary social neuroscience literature to explicate how Teece’s (2007) notions of sensing, seizing and transforming each require affective and emotional processes of individuals and groups for organizational adaptation. More recently, Salvato and Vassolo (2018) propose that firm-level DC originate in the integration of individual employees’ cognition, habit and emotion, and their capacity for productive interpersonal dialogue. Zott and Huy (2019) adopted an individual-level approach to empirically explore how and whether managers’ attention to emotion regulation behaviors of the self and of others influence the process of resource mobilization in seizing business opportunities. They identify that emotion regulation of the self helps mobilize managerial human capital “by creating psychic benefits for themselves” (p. 30), while conscious attention to others’ emotion regulation helps mobilize managerial social capital “by eliciting favorable legitimacy judgments from stakeholders” (p. 30), which will further benefit opportunity-seizing activities. In this way, their study not only identifies specific emotion regulation behaviors that vary across entrepreneurial managers, but also uncovers relevant interactions between the three underpinnings of DMC, which may lead to different outcomes in resource configuration.

## 2.4 Critical assessment

Based on the above review, it is my understanding that mainstream view is weak in its capacity to examine a dynamic concept like DC in a truly dynamic and innovative way. DC scholarship and knowledge has been mostly developed around TPS and EM papers (Peteraf et al., 2013), with few recent works actually proposing alternative approaches or introducing novel elements into our understanding of the nature, microfoundations and outcomes of DC (e.g., Nayak et al., 2020; Kurtmollaiev, 2020; Zott and Huy, 2019; Salvato and Vassolo, 2018). I make three major criticisms to the mainstream view. Firstly, a tendency to stabilizing the dynamic nature of DC through efforts of conceptualization and categorization and emphasizing clear boundaries between internal organization and external environment. This tendency indicates a lack of a process-oriented view that focuses on the ongoing and dynamic nature of DC. Secondly, its little attention to the contribution of actions and interactions of multiple actors within and around the organization (and not restricted to managers) to the microfoundations of DC. More specifically, being DC a key strategic concept, a strategy-as-practice approach is needed to further our understanding of how DC emerge and develop over time. Thirdly, an insistence on a managerial discourse that takes for granted that having DC is necessary for firms to reach success in dynamic contexts, and that individual managers must have specific skills in order to create successful firms. These taken-for-granted assumptions and their hidden power effects have not yet been critically investigated.

### **On the lack of a process-oriented view**

The above literature review shows that the mainstream view of DC tends to associate DC with tangible and intangible organizational and managerial elements, such as processes, routines, managerial cognition/human capital/social capital, and organizational learning and knowledge. In this way DC scholars in the mainstream tradition struggle to represent and describe DC in well-organized names, concepts and categories. It is therefore my understanding that DC scholars in the mainstream tradition have attempted to explain the nature and theoretical underpinnings of DC in cognitive and representationalist terms. Such an approach builds upon a Parmenidean assumption of reality as fundamentally permanent and unchangeable, rather than a Heraclitus' view of reality as always in flux. As such, the mainstream view has primarily approached DC as a taken for granted thing that is "already given and 'out there'" (Chia, 1995, p. 594), privileging a *substance* mode of thinking that describes DC as something static, tangible and visible, that can be analysed and measured in terms of firm performance and strategic change variables. Although the DC framework was originally proposed to introduce dynamism into the static approach of the RBV, scholars in the mainstream tradition show a tendency to stabilizing the dynamic nature of DC through efforts of

conceptualization and categorization, this way closing off the ontological question of what is *beyond* DC. However, consistent with a *process* style of thinking, names, concepts and categories cannot accurately capture the emergent, immanent, dynamic and interactional nature of firm-level DC.

In addition, authors of the DC framework emphasize an organization's capabilities "to address rapidly changing environments" (TPS, p. 516) and possibly shape them (Helfat et al., 2007; Teece, 2007, 2012), or "to match and even create market change" (EM, p. 1107). Hence, implicit in the concept of DC as it was originally framed (either by TPS, EM or their followers) is a clear boundary between organization (inside) and environment (outside). As it will be argued in the following chapter, this feature is distinctive of a *distal (substance)* mode of thinking, as opposed to a *proximal (process)* one (Cooper, 1992, Cooper and Law, 1995; Chia, 1995). Therefore, by emphasizing the boundary between internal capabilities and external context, the mainstream view of DC is committed to a *distal (substance)* mode of thinking, in opposition to a *proximal (process)* one. *Distally*, DC are a static internal thing (e.g., processes, routines, managerial capabilities, knowledge) that is 'out there' so that firms are able to effectively cope with external changing environments, or even to create market change or shape the business environment. In contrast, a *proximal* understanding of DC, that is absent in the mainstream view, must pay attention to what happens in *between*, not inside or outside boundaries.

### **On the need of a practice-based approach**

Strategy-as-practice takes the view of strategy as a socially accomplished practice. It focuses on concrete actions and interactions of manifold individuals in the everyday life of an organization (Whittington, 1996, 2003, 2006; Jarzabkowski, 2003, 2005). Despite it has been claimed that a practice-based approach may contribute to explain the microfoundations of firm-level DC (Jarzabkowski, 2005; Regnér, 2008), the mainstream view has not paid enough attention to the daily activities of all actors within and around the organization, their actions and interactions, which may contribute to explain DC as a socially embedded construct. At the organizational level, scholars have developed the DC framework around managerial and organizational processes and routines (e.g., TPS; EM; Zollo and Winter, 2002; Zahra et al., 2006; Helfat et al., 2007; Teece, 2007). At the individual-level the focus has been on managerial decision-making activities reliant on the competences and skills of executives and top managers (e.g., Adner and Helfat, 2003; Helfat and Peteraf, 2015). Only recently, a practice-based approach to DC inquiring has started to receive attention from DC scholars, with few attempts to explain DC as collective practices (e.g., Salvato and Vassolo, 2018; Kurtmollaiev, 2020; Nayak et al., 2020). Among these, only one actually gets inspiration from social theory (in the case, Bourdieu's theory of practice and concept of habitus) to suggest a non-cognitive microfoundational framework of DC (Nayak et al., 2020) that contrasts (but also complements) the

mainstream view. Despite the contribution of these recent works to developing a practice-based approach to DC theorizing, it is my understanding that they lack a clear focus on strategic and entrepreneurial practices, including their actors, objects, rules and artifacts.

### **On the absence of critical investigation**

The mainstream view insists on a managerial discourse that takes for granted that having DC is necessary for firms to reach success in dynamic contexts (either in the form of profits, growth, survival, value creation, and potentially sustained competitive advantage) and that individual managers must have specific skills and attitudes (e.g., managerial cognition/social capital/human capital, leadership and entrepreneurial skills) in order to create successful firms. The knowledge around DC has been developed around the seminal papers of TPS and EM (Peteraf et al., 2013), which despite their tensions and contradictions provide a full menu on specific managerial and organizational processes and routines that firms are expected to adopt to deal with changing environments. In addition, the mainstream view expects individuals to engage in certain practices (e.g., attention, problem-solving, education, training, learning, networking) that can attest their dynamic managerial capabilities which are said to be needed for them to reconfigure resources and make better strategic decisions, namely in contexts of environmental dynamism. While these taken-for-granted assumptions are common in the mainstream academic DC discourse, they hide the power implications which, to my knowledge, has not yet been considered in DC scholarship.

## Chapter 3 A process-oriented view

*"No man ever steps in the same river twice, for it's not the same river and he's not the same man"*

Heraclitus, Greek Philosopher

The purpose of the present chapter is to elaborate an approach to DC that is fundamentally different from the mainstream, entitative view that has prevailed in DC scholarship. An approach that interprets DC in weak processual terms, which means, looking at DC as change and movement rather than a static thing or end-state, and acknowledging that what is real is the *becoming* nature of DC. It implies that DC should not be taken for granted, as an established social category that is "already given and 'out there'" (Chia, 1995, p. 594). Instead, it requires that DC be explicated in terms of actions and interactions, movement and change, process and emergence. By adopting the process-based lens, I am interested in the ontological question of what is *beyond* DC. The approach developed focuses on what is less visible and known about DC, which is beyond representation. It highlights the immanence that is inexorably implicated in the strengthening or weakening of DC. It captures the *Other* that is immanent in DC as a *becoming* phenomenon. It rejects clear boundaries between organization and environment, but rather focuses on the actions and interactions that take place *in between*, offering numerous opportunities for 'dynamizing' an organization's DC while preparing it for future encounters with changing environments. Organizational sensemaking and actor-network theory are then suggested as process-oriented theories that can aid a process-based understanding of DC. The former looks at DC as a process-relational phenomenon enacted by organizational sensemaking activities toward strategic change. The latter interprets DC as interactional effects of heterogeneous *networks* of both people and objects.

I proceed with this chapter in the following manner. Firstly, I introduce the philosophical roots of process thinking, and identify the main features that distinguish process philosophy. Secondly, I discuss how process thinking has been applied to the organization as *becoming*. Thirdly, I develop an approach intended to address the broader research question of how can we make sense of DC from a process style of thinking. I further discuss the contributions of this process-oriented view to DC scholarship as well as its methodological implications. Finally, I conclude with a critical assessment on the adoption of the process-based lens to DC theorizing.

### 3.1 Process thinking

If we look at our natural and human history, we easily realize that it is made of several remarkable events – the big bang, the creation of fire, the invention of clothing and the emergence of language, the extinction of the Neanderthals and the supremacy of the Homo sapiens, the first Olympic games in Greece, the creation of democracy in Ancient Greece, the emergence of Buddhism and the birth of Jesus of Nazareth, the Portuguese world discoveries, the invention of the steam engine, the slavery abolition within the British Empire, the invention of Model T by Ford Company, Martin Luther King’s famous speech “I Have a Dream”, the election of the first black president in South Africa and the abolishment of the apartheid, the release of the Apple’s revolutionary iPhone, the nomination by a major party of Hillary Clinton as the first-ever woman for the USA presidency, etc. At this point, we may acknowledge that all these events, just like many others that are not listed here, have changed the course of our natural and human history. Yet, they are nothing but the result of extended and complex processes that are constituted by manifold activities, actions, tensions, discontinuities, relationships and interconnections. How these events became what they are, what is the intricate story behind their emergence, is the focus of process thinking.

Process thinking has its philosophical roots in Heraclitus’ view of reality as always in flux, which is opposed to Parmenides’ view of reality as permanent and unchangeable (Rescher, 1996). Heraclitus’ famous dictum that “no man ever steps in the same river twice, for it’s not the same river and he’s not the same man” connotes his belief that everything in the world is constantly changing. While both Greek philosophers looked for answering to the fundamental question of ‘what exactly is the universe?’, they had different perspectives on the metaphysics of universe. For Parmenides, reality is static and any change is only illusion (ontology of *being*). In contrast, for Heraclitus, reality is a constellation of processes (not things) and everything in nature is in the constant state of *becoming* (ontology of *becoming*).

Twentieth-century philosophers who are precursors of Heraclitus’ process thinking include, for instance, William James, Henri Bergson, and Alfred North Whitehead. All these thinkers have a common understanding of reality as consisting of processes rather than things, of time as indivisible rather than discrete points in space, of movement and change as all that exists rather than stability and persistence. For James (1996/1909) “What really exists is not things made but things in the making” (p. 263). This idea is also present in Bergson’s (1912) proposition on the ontology of *becoming* which states that “reality is mobility. Not *things* made, but things in the making, not self-maintaining *states*, but only changing states exist” (p. 65). In a similar vein, Whitehead (1978/1929) describes the real world as a “process, and that the process is the becoming of actual entities” (p. 22). In Whiteheadian sense, “how an entity *becomes* constitutes *what* that actual entity is (...). Its ‘being’

is constituted by its 'becoming'. This is the 'principle of process'" (Whitehead, 1978/1929, p. 23). More recently, process thinking has been embraced by authors such as Robert Chia and Robert Cooper.

According to Chia (1995, 1996), the two contrasting ontologies of the world – ontology of *being* and ontology of *becoming* – represent two different *styles of thinking*, which have been described in human sciences as *downstream vs. upstream* (Latour, 1987), *modern vs. postmodern* (Cooper and Burrell, 1988), *strong vs. weak* (Vattimo, 1988), *distal vs. proximal* (Cooper, 1992) thinking. In his book *Science in Action*, Latour (1987) examines science and technology in action, whilst emphasizing that science can only be understood through its practice. He uses the terms *downstream* and *upstream* to describe two distinct approaches for perceiving science and technology. Chia (1996) draws a distinction between these two approaches in terms of modes of thought. *Downstream* thinking attempts to describe and represent the reality as it exists 'out there'. Such reality is assumed to exist independently of the subject who is observing it. Being representationalist from an epistemological stance, *downstream* thinking "takes as given the pre-existence of an already constituted world that we subsequently apprehend. Social and material objects, attributes and events exist prior to any attempts to linguistically represent them" (Chia, 1996, p. 5). This approach to science leads to what Latour (1987) calls 'ready-made science'. In contrast, *upstream* thinking aims to understand the objective facts (that downstream thinking takes as given) in terms of the social organizing processes involved in their construction. "Facts and 'bodies of established knowledge' are products or 'outcomes' of primary social organizing processes rather than the result of an accurate matching of words with things and events in the world" (Chia, 1996, p. 13). By placing science within its social context, *upstream* thinking shifts the focus of analysis from 'ready-made science' to 'science in the making' (Latour, 1987).

These opposing conceptual views, *downstream vs. upstream*, have an equivalence on what has been designated in human sciences as the *modernism-postmodernism* debate. According to Chia (1996), "the term 'modernism' has come into currency ... as an umbrella concept expressing a style of thinking and a set of intellectual preoccupations which are clearly identifiable with the downstream mode of thought" (p. 3). In turn, "postmodernism is another name for what we have called 'upstream thinking', an intellectual predisposition rather than an alternative perspective" (p. 6). Cooper and Burrell (1988) describes modernism as "that moment when man invented himself; when he no longer saw himself as a reflection of God or Nature. Its historical source lies in the eighteenth-century philosophy of the Enlightenment which chose Reason as the highest of human attributes" (p. 94). As such, *modern* thinking believes "in the essential capacity of humanity to perfect itself through the power of rational thought" (Cooper and Burrell, 1988, p. 92). In contrast, *postmodern* thinking rejects "the human agent as the centre of rational control and understanding"

(Cooper and Burrell, 1988, p. 91). For Vattimo (1988), modernity and post-modernity are represented by *strong* and *weak* thinking, respectively. *Strong* thinking is originated in the Western metaphysical logic that frames the reality in strong terms such as essence, stability and universality. *Weak* thinking, the antithesis of *strong* thinking, is focused upon processes of change, discontinuity, instability, complexity, indeterminacy that emphasize ambiguity, otherness and paradox.

Chia (1995) argues that “what distinguishes the modern from the postmodern is best understood as differences in styles of thinking, each with its own set of *ontological commitments, intellectual priorities and theoretical preoccupations*” (p. 580). While a modern style of thinking is committed to an ontology of *being* which emphasizes outcomes and end-states, a postmodern one honours an ontology of *becoming* which privileges movement, process and emergence (Chia, 1995). In terms of intellectual priorities, a postmodern style of thought starts from actions, relations and processes instead of their effects or products (Chia, 1995). It is theoretically concerned with actions, emergent relational interactions and local orchestrations of relationships, rather than the accomplished phenomena, static and end-states, entities and events (Chia, 1995).

Chia’s (1995) notions of *modern vs. postmodern* styles of thinking correspond to what Cooper (1992) and Cooper and Law (1995) have described as *distal vs. proximal* thinking. *Distal* thinking is related to “ready-made concepts, to the “finished” effects and outcomes of thought and action”, while *proximal* thinking refers “to process and event, to the continuous and “unfinished”” (Cooper, 1992, p. 373). “The distal stresses boundaries and separation, distinctness and clarity, hierarchy and order. The proximal manifests implication and complicity, and hence symmetry, equivalence and equivocality” (Cooper and Law, 1995, p. 239). Chia (1999) further explains these two modes of thought in terms of *substance metaphysics* and *process metaphysics*, respectively. The former understands social and material phenomena as relatively stable entities (Chia, 1999). By focusing on stability, permanence and order, *substance metaphysics* allows that social and material phenomena be represented and described as symbols and concepts, which is particularly convenient for scientists who look for exactness (Chia, 1999). This entitative conception of reality has dominated research in social and natural sciences, and has particularly influenced organization studies (Chia, 1996, 1999). In contrast, *process metaphysics* holds that “physical existence is at bottom processual; that processes rather than things best represent the phenomena that we encounter in the natural world about us” (Rescher, 1996, p. 2). Under this alternative way of thinking, things “are always subordinate to processes because processes inwardly engender, determine, and characterize the things there are” (Rescher, 1996, p. 2). From such processual view, social and material phenomena cannot be accurately represented by symbols and concepts because they are always in flux, in the constant state of *becoming*.



Rescher (1996) highlights that process philosophy is predicated on two contentions: first, in a dynamic world, “*things* cannot do without *processes*” (p. 28) and, second, “*processes* are more fundamental than *things*” (p. 28). As described by Nayak (2008),

Process philosophy defines theory by its relation to what does not yet exist. Processual theory does not synthesize something that has been or that is. Instead, it announces what will be and provokes our attention to what is going to be. It is in this sense that processual theory is a way of ‘thinking beyond’ the human intellect and opening ourselves to the reality of movement and becoming. (p. 187)

Process philosophy is characterized by certain pivotal features: the indivisibility of time and reality, the principle of immanence, the non-representational nature of reality, the logic of *otherness*, the focus on *in betweenness* and connectivity. In what follows I elaborate on each of these features, based on the contributions of key process philosophers and thinkers.

### **The indivisibility of time and reality**

In process philosophy, time is perceived as continuous, indivisible. It is not seen as an aggregation of infinite discrete points (like  $t_0, t_1, \dots, t_n$ ) that form a deterministic line in time, but rather understood as “a fusion of heterogeneous instants, an indivisible flux and becoming” (Chia, 1999, p. 217). This process-based view contrasts with the usual spatial representation of time as a succession of separate points or moments, like *past, present* and *future, before* and *after*, or *now* and *then*. Instead, time perceived as an indivisible continuity is designated by Bergson (1910, 1946) as ‘real duration’, which is time as we actually experience it (lived time) not as we see it (clock time). Time as duration is heterogeneous, qualitative and dynamic, in contrast with spatialized time which is homogeneous, quantitative and static (Linstead and Mullarkey, 2003). The perception of time as real duration is illustrated by Bergson’s (1946) example of listening to a melody:

When we listen to a melody we have the purest impression of succession we could possibly have – an impression as far removed as possible from that of simultaneity – and yet it is the very continuity of the melody and the impossibility of breaking it up which make that impression upon us. (p. 149)

For Bergson, not only time should be articulated as indivisible, but also movement and change: “*We shall think of all change, all movement, as being absolutely indivisible*” (Bergson, 1946, p. 142). For him, moving from point A to point B in space is trajectory, not movement. While “trajectory is space and space is infinitely divisible”, movement “is reality itself” (Bergson, 1946, p. 143), and true reality is not divisible. Bergson (1946) recognizes that it is legitimate to see movement as a series of successive positions, because our intellect usually needs the immobilities of the points in

the space in order to understand movement. But if immobility means absence of movement, then “there never is real immobility” (Bergson, 1946, p. 143). Similarly, although our minds, for practical reasons, might prefer to see change as a series of states that form a line in time, “real change is an indivisible change” (Bergson, 1946, p. 146). This idea of change and movement as indivisible wholes is a key feature of the processual approach. By challenging the natural tendency for treating movement and change as series of positions or states that occur in a spatialized time, process thinking privileges *processes* over *end-states*, and *becoming* over *being*.

Whitehead also argues for time as we experience it, and rejects the mathematical concept of absolute time which considers time as a succession of durationless instants (Mays, 1972). Moreover, Whitehead (1926, 1978/1929) rejects the traditional doctrine of *simple location*, which restricts matter (material things or entities) to one unique space-time region and denies the importance of space-time relations. The assumption of *simple location* implies that reality is constituted by physical entities locatable at specific points in space and time. According to Whitehead, this entitative view of reality leads to the *Fallacy of Misplaced Concreteness*, which is the unintentional error of mistaking the abstract for the concrete. This error refers to “the tendency to see physical objects and things as the natural units of analysis rather than, more properly, the *relationships* between them” (Chia, 1995, p. 582). For Whitehead, the assumption of *simple location* is unable to capture reality in its entirety (Roberts, 2014). Instead, Whitehead maintains that reality is made up of processes, what he calls *actual entities* (or *actual occasions*). *Actual occasions* never exist in isolation, they are “drops of experience, complex and interdependent” (Whitehead, 1978/1929, p. 18). In Whitehead’s scheme, these experiential events “take place in timespace and carry within themselves other events; furthermore, they come together to form a unified event, which in turn is the basis for the formation of new events” (Bakken and Hernes, 2006, p. 1608). In other words, nothing emerges from nothing, and everything is related to everything through process.

### **Principle of immanence**

An understanding of time as duration implies that the past is immanent in the present and is carried into the future. As such, “each outcome, each situation or state, always necessarily incorporates and absorbs the events of its past” (Chia, 1999, p. 220). Bergson (1910) describes real duration as “made up of moments inside one another” (p. 232). In terms of temporality, this means that “each moment of duration absorbs the preceding one, transforming it and in that very process transforming itself” (Chia, 1999, p. 221). In other words, accumulating the past into the present involves continuous change and transformation. Change is indivisible, and so is reality. Each moment is always an expanded creation, novel outcome of the previous one. Bergson’s (1910, 1946) account of indivisible change as constitutive of reality is also present in James’ (1996/1909) idea of novelty

(or creative change) as something that ‘doesn’t arrive by jumps and jolts’. The same principle is observed in Whitehead’s (1978/1929) theory of concrescence. Whitehead (1978/1929) calls concrescence to the process through which an actual entity (also termed actual occasion) makes itself continuous with its past, by incorporating the past into its own being.

Hence, in process thinking the past, present and future flow together. But then, how can we distinguish between them? Bergson (1911), for example, describes the present as being “that which is acting” while the past is “essentially that which acts no longer” (p. 74). Movement and action are thus intrinsic to the present. The past co-exists in the present but “has exhausted its possible action” (Bergson, 1911, p. 185). The future, “on the contrary, consists in an impending action, in an energy not yet spent” (Bergson, 1911, p. 185). Rescher (1996) highlights that:

process philosophy considers the specious present to be the movable entryway separating a settled and determinate past from an open and (as yet) unrealized and indeterminate future. And since this future always brings new situations to realization, the present is ever the locus of novelty, innovation, and creativity. (p. 74)

### **Non-representational nature of reality**

In an ontology of *being*, categories, things and symbols may help us to represent and analyse the reality as we observe it. However, in an ontology of *becoming*, they are not appropriate to grasp the underlying complexities of reality itself, which is indivisible, always in flux.

The belief that language and logic are adequate forms to accurately representing reality has its backgrounds in two Aristotle’s laws of thought: the law of identity and the law of non-contradiction (Chia and Nayak, 2017). According to the law of identity, everything is the same as itself. Considering a phenomenon ‘A’, this law asserts that ‘A is A’. The law of non-contradiction states that nothing can both exist and not exist at the same time. Hence, ‘it is impossible for something to be A and not A in the same respect and at the same time’. As Chia and Nayak (2017) note, these two laws hold only by supposing that reality is fundamentally stable and permanent, which reflects a commitment to an ontology of *being*. In contrast, a commitment to an ontology of *becoming* implies that reality cannot be translated into language and logic; reality as ever-flowing cannot be confined to well-ordered categories (Chia and Nayak, 2017). Hence, reality in a constant state of *becoming* is beyond representation.

As Nayak (2008) explains, reality “is a never-to-be-completed process. It is always a *fait accomplissant*, not a *fait accompli*. This emphasizes the continuous creativity of reality. Consequently, it cannot be represented” (p. 178). If a *becoming* reality is non-representable, how can we make sense of the processual nature of reality? For Bergson, *intuition* is the only method for perceiving reality as

continuous and indivisible. Intuition is “the kind of *intellectual sympathy* by which one places oneself within an object in order to coincide with what is unique in it and consequently inexpressible” (Bergson, 1912, p. 7). Bergson’s philosophical method of intuition consists of thinking of reality in terms of movement, which he calls ‘thinking in duration’. As Bergson (2007/1946) explains “Intuition starts from movement, posits it, or rather perceives it as reality itself, and sees in immobility only an abstract moment, a snapshot taken by our mind, of a mobility. ... For intuition the essential is change” (p. 22). In a similar vein, for James and Whitehead, our understanding of reality as an ongoing process is best gripped through *intuitive perception*. This is evident in James’ appreciation that our “acquaintance with reality grows literally by buds or drops of perception” (cited in Whitehead, 1978/1929, p. 68). Whitehead, however, “did not believe that humans are able to go beyond an entitative *understanding* of process” (Bakken and Hernes, 2006, pp. 1601-1602). An intuitive perception of process is what Weick’s (1995) refers to as *sensemaking*. It is through sensemaking that actors make sense of reality as a process: “The language of sensemaking captures the realities of agency, flow, equivocality, transience, reaccomplishment, unfolding, and emergence, realities that are often obscured by the language of variables, nouns, quantities, and structures” (Weick, Sutcliffe and Obstfeld, 2005, p. 410).

Cooper (2005), who describes reality as a “flow of events which keeps on flowing” (p. 1707), expresses its non-representational nature as ‘the latent’. “To say something is latent means that it is unclear, indefinite and even nebulous. The latent does not easily lend itself to the clarity of definition; it is allusive rather than explicative. It can mean hidden, secret, clandestine” (Cooper, 2005, p. 1693). He further argues that in order for us to understand the latent, “we have to abandon our customary habit of seeing the things of the world from the fixed focus of a centralized point of view and recognize their essential incipience when seen from a multiple mix of perspectives” (p. 1693). This idea is illustrated in Cooper’s (2005) example of a city, which

is not something that can be defined from a centralized perspective. It is an endless kaleidoscope of possible viewpoints. Any attempt to express it as in the fixed form of a street map, an aerial photograph or a written history has to be recognized as a provisional and partial glimpse of a territory whose latency exceeds all representation. While replete with the identifiable objects of its buildings, streets and traffic, the city also occupies a pre-objective space through which its objects relate to each other in a mobile panorama of interacting events. (p. 1693)

### **Logic of *otherness***

Another feature of process thinking is the *logic of otherness*. Chia (1999) describes it as “an insistence that terms do not and cannot stand alone in and of their own right. Instead, the very

platform on which things, identities and situations emerge is predicated upon the suppression and backgrounding of the other that has given rise to it” (p. 219). In other words, the representation of reality into terms, categories and concepts ignores what is absent, implied and cannot be expressed through language. Hence, things, terms and identities omit, suppress or overlook the “other” that gives meaning to the former. As Chia (1999) informs, “Meaning is never fully and immediately present in a term. Rather each term contains the traces of its ‘other’ which as other serves to supplement and complement it, thereby giving meaning to the term itself” (p. 220).

For Cooper (2016/1983), the “other” is what constitutes the one. He argues that the *logic of otherness* is immanent in every social structure, since structure is always relationship between “others”. To illustrate the *logic of otherness*, he gives the example of the humble screw and nut, which reminds us “of the Other inasmuch as a screw is a nut without a hole just as a nut is a screw with a hole” (p. 59). Both complement or supplement each other and, in this way, they are ‘*in-one-another*’ (Cooper, 2016/1983). The two are inseparably intertwined, one defines the other through their continual relationship, and they cannot be separated from each another. Hence the screw needs the nut and the nut needs the screw in order for both to have meaning. In a *becoming* ontology, the screw and nut are not two isolatable terms. One tends to its *Other*, and in this way they give meaning to each other. This idea of opposing tendencies that give meaning to identity is present in Deleuze’s conception of difference. For Deleuze (1999), all identities emanate from differences and tensions between opposing tendencies. In Ancient Chinese philosophy, the *logic of otherness* can be found in the principle of Yin and Yang, which represents the duality of all things that exist in the universe. According to this principle, all things exist as inseparable and contradictory opposites which are in continual and strong interaction. For example, negative and positive, male and female, night and day, life and death, inhalation and exhalation. One cannot exist without the other, and by existing as opposing forces they give sense to each other.

### **Focus on *in betweenness* and connectivity**

In process thinking, the human world is viewed as a complex network of dynamic relationships and connections between the individual and its environment. The focus of analysis relies on the interspace *between* the human agent and the environmental objects that sustain it (Cooper, 2005). The world is described in terms of *relationality*, “where everything is relative to everything else, suspended in an interspace of betweenness” (Cooper, 2005, p. 1692-1693). Action takes place *in betweenness*, where the elements of the world connect to one another and, in this way, they also give meaning to one another (Cooper, 2005). Relationality and connectivity point to an understanding of the world as made of ongoing relations rather than ready-made categories and things (Cooper, 2005).

The connectivity between human beings and objects is a key feature of Actor-Network Theory (ANT). Originated in the sociology of science and technology, ANT was developed during the 1980s by Bruno Latour, Michel Callon and John Law (e.g., Callon, 1986; Latour, 1987; Law, 1987). It was conceived as a theoretical or methodological approach to integrate technology into social theory. By considering the world as consisting of networks of relations, ANT focuses on the associations and connections between the different actors that build and constitute those networks. How heterogeneous networks come into being, how associations occur and evolve, how actors are enrolled into a network are typical concerns of ANT. In ANT, an actor is an actant, which is something that acts or is granted activity by others, and by no means it is restricted to humans (Latour, 2005). Hence, networks encompass both social and material actants, that is, people but also objects, such as machines, animals, documents, money and any other materials (Law, 1992), which should be considered on an equal plane (*principle of generalised symmetry*). Based on this principle, actor-networks are portrayed as chains of associations of humans and nonhumans (Latour, 1991b) or hybrid collectives (Callon and Law, 1995). ANT then explains knowledge (science) as a social product, an outcome of a network of heterogeneous materials (Law, 1992). Human and other material elements are put together in action to generate scientific products. Knowledge in this view “is a material matter but also a matter of organizing and ordering those materials” (Law, 1992, p. 381), a process that Law (1992) designates as “heterogeneous engineering” (p. 381). The same author notes that, besides science, ANT’s *principle of material heterogeneity* also applies to other social institutions, such as the family, the organization, the economy, etc. In his words, “the stuff of the social isn’t simply human. It is all these other materials too. Indeed, ... we wouldn’t have a society at all if it weren’t for the heterogeneity of the networks of the social” (p. 381). Society is then “constructed out of the activities of humans and nonhumans, who remain equally active and have been translated, associated, and linked to one another in configurations that remain temporary and evolving” (Callon, 2001, p. 64). Moreover, since every act of a human being is generated in networks, an actor – either a human being or an object – is always “a patterned network of heterogeneous relations, or an effect produced by such network” (Law, 1992, p. 384). In a similar vein, Cooper (2005) says that, in a world of relationality and connectivity, “the human agent is constituted by its relational acts rather than being the expression of an inner subjectivity” (p. 1699) and objects “reflect not so much themselves but the flux and flow of the connections and disconnections they become part of” (Cooper, 2005, p. 1691).

To sum up, from a process logic, the human world is viewed as a complex network of dynamic relationships and connections between the individual and its environment. Everything that happens, takes place *in between*, and we make sense of the world as we know it through relationality and connectivity. From an actor-network perspective, every act of a human being is materially

heterogeneous. That is, human actions and interactions take place with the support of material objects that shape and mediate social acts. For example, the act of playing tennis is an expression of the relationships between the tennis player, the ball, the court, the adversary. And it is also mediated by a network of other people such as the technical coach and other objects such as the training equipment. If we think about professional tennis, then other networks of people and objects may be involved such as fitness coaches, physiotherapists, psychologists, tennis federations, sponsors, money, etc. From an ANT perspective, Roger Federer as we know him is an effect of the connections and interactions that constitute his network of heterogeneous materials. And it is because his network of heterogeneous materials is different from the one that has been created around Rafael Nadal, that Nadal is not Federer. Connectivity between people and objects are then an intrinsic part of social acts, and depending on how they connect to one another, different patterns of social relationships will be generated, as well as different actors. As Law (1992) notably notes: “Hence the term actor-network – an actor is also, always, a network” (p. 384).

### **3.2 Organization as *Becoming***

An Heraclitean conception of reality as always in flux, in which properties such as change, movement and disorder are privileged over stability, permanence and order, has significant consequences for our understanding of organization. If organization is a collective of people and materials that operates within its surrounding environment, and people, materials and environment are continuously changing, then the organization itself should be understood as in a constant state of *becoming*. Not surprisingly, several scholars have adopted a process-based view of the organization, one that looks at the organization as an effect of complex social processes rather than a static state (Cooper and Law, 1995). In what follows I elaborate on how process thinking applies to organization, or more appropriately, to the dynamic processes of organizing.

Process thinking applied to organization correspond to what Cooper and Law (1995) refer to as proximal theory of organization, in which “organizations are outcomes, verbs and patternings, rather than structures in the stable distal sense” (pp. 259-260). They are effects of relations and interactions between diverse human and non-human materials, which are in a constant state of tension and movement. A proximal view sees organization as “an outcome (...) of fuzzy and indeterminate processes. Processes that are uncertain. Processes that are heterogeneous. Processes that do not add up” (p. 271). The outcome is somewhat precarious and uncertain, because relations and interactions are always changing (Cooper and Law, 1995). Hence, the proximal organization is better understood as a dynamic process of ordering and organizing (Cooper and Law, 1995). The organization in this sense is never fully finished, but rather in a continual process of change,

transformation and renewal. Hence, for process thinkers, change is the normal condition of organizational life, while organization is the exception (Tsoukas and Chia, 2002; Chia, 1999).

Chia (1999) describes organizational change as 'rhizomic'. A rhizome, he argues, establishes endless connections and depicts the heterogeneous and indeterminate nature of reality. As such, a 'rhizomic' model of change allows a better understanding of the inherent instability and multiple character of organizational transformational processes. According to Chia (1999), 'organization' and 'change' should be seen as opposing tendencies that create the required tensions for the natural process of organizational evolution. While change implies creativity and novelty, organization is an attempt to stabilizing the immanent forces of change (Chia, 1999). It is because the social world is made of change and disorder that organization exists. Organization treated in this way as "the appropriation of order out of disorder" (Cooper, 1986, p. 328) is a product of a dialectal relationship, and ontologically subsequent to change. In the words of Tsoukas and Chia (2002), "organization is a pattern that is constituted, shaped, and emerging from change. Organization aims at stemming change but, in the process of doing so, it is generated by it" (p. 567).

But how is change actually accomplished in the ground? Change is inextricably inherent in human action (Tsoukas and Chia, 2002; Chia, 1999; Orlikowski, 1996). Tsoukas and Chia (2002) argue that change "is the reweaving of actors' webs of beliefs and habits of action to accommodate new experiences obtained through interactions" (p. 567). Orlikowski's (1996) empirical study on the use of a new information technology within one organization reveals organizational change to be "an ongoing improvisation enacted by organizational actors trying to make sense of and act coherently in the world" (p. 65). March (1981) notes that change "takes place because most of the time most people in an organization do about what they are supposed to do; that is, they are intelligently attentive to their environments and jobs" (p. 564). In other words, an understanding of organizational change as inseparable of individuals' accommodations and adaptations to everyday new experiences and possibilities leads us to a view of organization as a human accomplishment. It is "the attempt to order the intrinsic flux of human action" (Tsoukas and Chia, 2002, p. 567).

In addition, a proximal mode of thinking implies that action takes place *in between*, not inside or outside boundaries (Cooper and Law, 1995). Consequently, the conventional boundary (in the distal mode) between organization and environment becomes an "intervening medium, a point or line of passage for action, movement" (Cooper and Law, 1995, p. 240). Remember that a process ontological perspective assumes that the *otherness* is immanent in every representational attempt and that the world is a complex network of connections and relationships. Hence, while distally organization and environment are two separate categories, proximally they live in a continual and dynamic interaction, being highly connected and interrelated and only existing as inextricable and contradictory opposites that give meaning to each other. The boundary, in this sense, does not divide



and separate organization and environment, but rather simultaneously divides and joins them through numerous occasions for interaction (Cooper and Law, 1995). It is the boundary that “structures the interactions and meaning *between* social actors” (Cooper, 1986, p. 306). Hence, the boundary, itself, must also be understood as a process, not a state (Cooper and Law, 1995).

This way of thinking organization as a dynamic flow of human actions and interactions shifts the focus of study from organization as a static entity to organization as an ongoing process. In his book *The Social Psychology of Organizing*, Weick (1979/1969) has notably contributed to this shift of focus in organizational theorizing, having suggested that organization as a process (not structure) is better described by verbs and verb forms, rather than by nouns. Nouns imply a false stability of organization, while verbs capture the properties of flow, impermanence and continuous action that are implicit in the notion of process. “Without verbs, people would not see motion, change, and flow; people would only see static displays and spines” (Weick, 1979, p. 44). The ideas of *organizing* and *sensemaking* (both verbs in the gerund form) are central in Weick’s writings. Weick (1979) defines *organizing* as a “*consensually validated grammar for reducing equivocality by means of sensible interlocked behaviors*” (p. 3). For Weick (1979), the environment is comprised of informational inputs that are ambiguous, uncertain, equivocal, and it is such equivocal information that triggers organizing. *Organizing*, in Weick’s terms, is about reducing situations of information equivocality through intertwined activities undertaken by two or more actors. In other words, it is a collective activity in which people continually organize to manage ambiguity and uncertainty (equivocality) of information environment.

Weick’s (1979) model of organizing is comprised of three phases: enactment, selection and retention (ESR), through which organizational actors deal with the level of equivocality of information inputs. In the enactment phase, organizational actors create (enact) the environments which they face by assigning meaning to information inputs. In the selection phase, organizational actors narrow the level of information equivocality by deciding what information inputs and their meanings they will consider or disregard. Hence, meaningful environments will be selected out of possible ones. Finally, in the retention phase, organizational actors decide what information inputs and their meanings will be stored for future use. In this latter phase, the products of successful sensemaking are retained, products to which Weick (1979) calls *enacted environments*. The term is used to emphasize that “meaningful environments are outputs of organizing (not inputs to it)” (p. 131). In Weick’s (1979) view, boundaries between organizations and environment are hardly stable and straightforward. He further argues that “environments are created by organizations of puzzling surroundings and that these meaningful environments emerge quite late in organizing processes” (p. 132). According to Weick (1979, 1995), *sensemaking* is fundamental to *organizing*. He suggests the following recipe for sensemaking: “How can I know what I think until I see what I say?” (Weick, 1995,

p. 18; Weick, 1979, p. 133), to show the processes of enactment (saying), selection (seeing what I say) and retention (knowledge of what I said). In broad terms, sensemaking is a process through which individuals try to make sense of what is happening. Sensemaking is not the same as interpretation; sensemaking involves “authoring as well as interpretation, creation as well as discovery” (Weick, 1995, p. 8). In this way, interpretation is only a component of sensemaking. While people interpret something that is out there to be discovered (Weick, 1995; Daft and Weick, 1984), sensemaking is an activity or a process through which people create, invent what they subsequently attempt to comprehend and interpret (Weick et al., 2005; Weick, 1995).

Weick (1995) describes organizational sensemaking as “a process that is (1) grounded in identity construction, (2) retrospective, (3) enactive of sensible environments, (4) social, (5) ongoing, (6) focused on and by extracted cues, (7) driven by plausibility rather than accuracy” (p. 17). He refers to these characteristics as the seven properties of sensemaking. By stating that sensemaking is **grounded in identity construction**, Weick (1995) means that for organizational sensemaking to occur individuals first need to develop a sense of self which is constructed out of a process of interaction with others. He argues that “no individual ever acts like a single sensemaker (p. 18). In his opinion one sensemaker is constituted of many selves, and the more selves [he/she has] access to, the more meanings [he/she] should be able to extract and impose in any situations” (p. 24). Moreover, sensemaking “is never solitary because what a person does internally is contingent on others” (Weick, 1995, p. 40). As such, organizational sensemaking does not equate with individual action; it is rather **social** (Weick et al., 2005; Weick, 1995). In a similar vein, Maitlis (2005) describes sensemaking as a “fundamentally social process in which organization members interpret their environment in and through interactions with each other, constructing accounts that allow them to comprehend the world and act collectively” (p. 21). Sensemaking is also **retrospective**; it “takes form when people make retrospective sense of situations in which they find themselves and their creations” (Weick, 1995, p. 15). That is, people try to extract meanings of what occurs, of a lived experience. However, Weick (1995) emphasizes that an elapsed experience may be equivocal, since it may have many possible meanings. As such, in making retrospective sensemaking, he argues that people do not need more information, but rather clarity on values and priorities in order to synthesize what is relevant from an elapsed experience that will then give sense to it. In addition, action is crucial for sensemaking. While actions generate the raw materials (cues) that help people make sense of situations, it is also through actions that people **create (enact) the environment** which they face and seek to understand (Weick, 1979, 1988, 1995; Weick et al., 2005). Weick (1988) builds upon Bateson’s (1972) description of exploring to illustrate this key aspect about sensemaking:

The explorer cannot know what he is facing until he faces it, and then looks back over the episode to sort out what happened, a sequence that involves retrospective sensemaking. But the act of exploring itself has an impact on what is being explored, which means that parts of what the explorer discovers retrospectively are consequences of his own making. (pp. 305-306).

The above excerpt shows the reciprocal effect that exists between people's action (e.g., exploring) and their environment (e.g., what is being explored). On the one hand, sensemaking is facilitated by action ("The explorer cannot know what he is facing until he faces it"). On the other hand, by affecting the situation or event that originally triggered sensemaking, action also constrains future sensemaking ("parts of what the explorer discovers retrospectively are consequences of his own making"). In organizational settings, this "central point that when people act, they bring events and structures into existence and set them in motion" (Weick, 1988, p. 306) is called enactment. In other words, through action people enact the environments that facilitate and shape sensemaking. While enactment is a social process, an enacted environment is a product of enactment (Weick, 1988, 1995). A socially enacted environment, in turn, constrain actions (Weick, 1988, 1995). Weick (1988) observes that initial actions in a crisis "do more than set the tone; they determine the trajectory of the crisis" (p. 309). According to his stance, "All crises have an enacted quality once a person takes the first action" (p. 309). What the author intends to highlight is that crises augment the potential ways in which people's first actions (or inactions) determine the set of situations and events that will then constrain their subsequent actions and sensemaking.

Sensemaking is also an ongoing flow of activity from which people extract cues for closer consideration and to create plausible explanations that guide further action (Weick et al., 2005; Weick, 1995). By **ongoing**, Weick (1995) means that sensemaking "neither starts fresh nor stops cleanly" (p. 49), because people are constantly having experiences and tackling events which they have to make sense of. By asserting that sensemaking is **focused on and by extracted cues**, Weick (1995) suggests that people in organizational settings need to direct their attention to particular signals (cues) of what is occurring in order to develop a larger sense of the whole experience or events they are facing. Since information is equivocal, by noticing and extracting cues, and further interpreting them, organizational actors reduce the level of information equivocality. It should be noted that "context affects what is extracted as a cue", and it "also affects how the extracted cue is then interpreted" (Weick, 1995, p. 51). Hence, the context affects organizational sensemaking. Finally, by stating that sensemaking is **driven by plausibility rather than accuracy**, Weick (1995) means that people in organizations need to make sense of experiences and events in a reasonable and coherent way, which is collectively acceptable and credible, but not necessarily true. In other words, what makes sense for myself does not have to make sense for other people in the same way.

Organizational sensemaking is not about creating accurate interpretations and meanings, but about collectively agreeing on and constructing them in a plausible manner.

Applied to organizations, sensemaking is just another word for ordering and organizing. It starts with disorder and emerges out of the flux of lived experience and ongoing activities (Weick et al., 2005). As described in Weick et al. (2005) “people organize to make sense of equivocal inputs and enact this sense back into the world to make that world more orderly” (p. 414). Weick et al. (2005) emphasize that “Sensemaking is, importantly, an issue of language, talk and communication” (p. 409). In Weick’s (1979) model of organizing, communication between organizational members is essential for the organization’s survival. Sensemaking is particularly important in dynamic and volatile contexts, where individuals need to create meaning and order out of confusion and disorder so that they are able to interact and act collectively (Weick, 1993). Viewed in this way, organization as *becoming* is enacted from sensemaking activities. Sensemaking and organization have therefore a dialectical relationship; they constitute one another (Weick et al., 2005).

### **3.3 A process-oriented view of dynamic capabilities**

Having described the philosophical roots and main principles of process thinking and how it applies to organization, in this section I explore the potential contribution of a process-based lens for understanding DC. I am interested in the ontological question of what is *beyond* DC; a question that is related with that that is not immediately observable or visible to the naked eye, and is less known about. More specifically, the major research question that drives this work is: **How can we make sense of dynamic capabilities from a process-based style of thinking?**

In what follows I elaborate an approach toward a process-based view of DC.

#### **3.3.1 Toward a process-based view of dynamic capabilities**

While in a *substance* mode of thought the analysis is focused on the tip of the iceberg (the small part that is visible above the waterline), in a *process* style of thinking the attention goes to the larger part of the iceberg that remains hidden below the sea level, and is less known about. In what follows, I propose an understanding of DC from a process-based lens that focuses on that larger, less visible part of the iceberg which is seldom explored in DC scholarship. I start by examining how the mainstream, static perspective of DC contrasts with a process-based view, in respect to certain theoretical underpinnings, assumptions and types of reasoning. I address in particular the non-representational nature of DC, the principle of immanence, the logic of *otherness* and the focus on *in betweenness*. I then discuss two theoretical ways for approaching DC in processual terms:

organizational sensemaking and actor-network theory, and how they can contribute to address some important issues in the DC literature.

### **Non-representational nature of DC**

Most of DC research has been inspired by two seminal papers – TPS and EM –, which contradictory and mutually exclusive views for framing DC has split scholarship into two separate domains of knowledge (Peteraf et al., 2013). In spite of their opposing views, both TPS and EM agree in that DC consist of managerial and organizational processes and routines that allow firms to reconfigure resources to match the demands of changing environments. TPS define DC as an ability which essence rests with a firm’s organizational processes that are shaped by asset positions and evolutionary paths. EM define DC as strategic and organizational processes that are best known as ‘best practices’, such as product development, alliancing and strategic decision making. Although other authors in the mainstream tradition have provided alternative definitions of DC (e.g., Zollo and Winter, 2002; Winter, 2003; Zahra et al., 2006) or refined previous ones (e.g., Helfat et al., 2007; Teece, 2007), they still portray DC as abilities/capacities or processes/routines which are necessary to track exogenous change. In addition, the mainstream research assigns the origins and development of DC to concrete and cognitive factors such as: path-dependent processes shaped by asset positions (TPS) or learning mechanisms (EM); learning processes of experience accumulation, knowledge articulation and knowledge codification (Zollo and Winter, 2002); learning modes such as improvisation, trial-and-error, experimentation and imitation (Zahra et al., 2006); organizational processes, systems and structures (Teece, 2007); or dynamic managerial capabilities such as cognition, social capital and human capital (Adner and Helfat, 2003; Helfat and Peteraf, 2015).

By attempting to explain the nature and theoretical underpinnings of DC in such cognitivist and representationalist terms, the mainstream approach builds upon a Parmenidean assumption of reality as fundamentally permanent and unchangeable, rather than a Heraclitus’ view of reality as always in flux. While the former reflects a commitment to an ontology of *being*, the latter is committed to an ontology of *becoming* (Chia, 1995). In an ontology of *being*, categories, things and symbols (entities) may help us to represent and analyse the reality as we observe it (as a static thing or end-state). However, in an ontology of *becoming*, they are not appropriate to grasp the underlying complexities of reality itself (as indivisible, in a constant state of change and movement). According to Chia (1995, 1996), the two contrasting ontologies of the world represent two different *styles of thinking*, which Chia (1999) explains in terms of *substance metaphysics vs. process metaphysics*, respectively. *Substance metaphysics* focuses on stability, permanence and order. As such, it allows that social and material phenomena be represented and described as symbols and concepts (Chia, 1999). In contrast, *process metaphysics* focuses on processes and emergence. It holds that “physical

existence is at bottom processual; that processes rather than things best represent the phenomena that we encounter in the natural world about us” (Rescher, 1996, p. 2). It looks at reality as a “flow of events which keeps on flowing” (Cooper, 2005, p. 1707), “a *fait accomplissant*, not a *fait accompli*” (Nayak, 2008, p. 178). In a *process* style of thinking, because social and material phenomena are understood as always in flux, they cannot be accurately represented by symbols and concepts. That is, reality in a constant state of *becoming* is beyond representation through language and logic (Chia and Nayak, 2017).

Based on a *substance* mode of thinking, the mainstream view has struggled to represent DC in well-organized names, concepts and categories. Although the DC framework was originally proposed to introduce dynamism into the static approach of the RBV, scholars in the mainstream tradition (TPS, EM, and their followers) show a tendency to stabilizing the dynamic nature of DC through efforts of conceptualization and categorization. However, in line with *process* thought, names, concepts and categories cannot capture the ever-flowing essence of DC. As Cooper (2005) would say, DC as a “flow of events which keeps on flowing” (p. 1707) is beyond representation. On the contrary, a *process* style of thinking looks at DC as change and movement rather than a static thing or end-state, and acknowledges that what is real is the *becoming* nature of DC.

### **The indivisible and immanent nature of DC**

In both TPS’s and EM’s framings, DC are described as path-dependent in their emergence. For TPS, the paths previously adopted or inherited by a firm mould the configuration of its processes and routines in distinctive ways, the latter being also shaped by asset positions. For EM, “while the evolution of dynamic capabilities occurs along a unique path for any given firm, that path is shaped by well-known learning mechanisms” (p. 1117), such as practice, codification, mistakes, and pacing of experience, which may contribute to improve, facilitate, consolidate or accelerate an organization’s processes and routines. In this way, DC are articulated in discrete and spatialized terms, as a cause-effect relationship between past histories and present processes and routines, eventually mediated by variables such as asset positions (TPS) or learning mechanisms (EM).

This static view that separates past and present, cause and effect, contrasts with a process-based perspective. In process philosophy, time is perceived as continuous, indivisible. Our perception of time as an indivisible continuity rather than a succession of distinct moments such as ‘before’ and ‘after’ constitutes what Bergson (1910) designates as ‘real duration’. Time as ‘real duration’ is “made up of moments inside one another” (Bergson, 1910, p. 232). An understanding of time as real duration implies that the past is immanent in the present and is carried into the future. As such, “each outcome, each situation or state, always necessarily incorporates and absorbs the events of its past” (Chia, 1999, p. 220). This is the principle of indivisible change as constitutive of reality, according to

which novelty (or creative change) ‘doesn’t arrive by jumps and jolts’ (James, 1996/1909) or an actual entity makes itself continuous with its past by incorporating the past into its own being (Whitehead, 1978/1929). From a process-based view, DC must be interpreted as indivisible and continuous. In this sense, immanence is inexorably implicated in the formation of DC, in their strengthening or weakening. DC as a continual, indivisible process always incorporate past experiences which may either create or constrain potentialities for the upcoming future. Depending on how past experiences are learnt and incorporated into present actions, they may contribute to reinforce or weaken future DC. In either case, by accumulating past experiences into the present and carrying them into the future, DC necessarily undergo continuous change and transformation. They are always an expanded creation, novel outcome of previous DC.

### **The intrinsic *Other* in DC becoming**

In DC literature, there has been a debate around the typology of organizational capabilities (e.g., Collis, 1994; Winter, 2003; Zahra et al., 2006; Ambrosini et al., 2009), namely on the distinction between ‘dynamic’ capabilities and ‘ordinary’ (or operational) capabilities. In the traditional view, ‘ordinary capabilities’ – also called first category capabilities (Collis, 1994), zero-level capabilities (Winter, 2003) or substantive capabilities (Zahra et al., 2006) – consist of a set of resources and abilities that enables a firm to perform its basic functional activities (Collis, 1994), earn a living (Winter, 2003) or develop its usual routines (Zahra et al., 2006). In contrast, ‘dynamic capabilities’ – corresponding to second and third category capabilities (Collis, 1994) or first-order capabilities (Winter, 2003) – are those that allow a firm to reconfigure, modify and change its ordinary capabilities (Collis, 1994; Winter, 2003; Zahra et al. 2006). Collis (1994) and Winter (2003) also discuss the existence of meta-capabilities or higher-order capabilities that operate on DC. Despite these different forms of extending TPS’s formulation to encompass a hierarchy of DC, what is consensual among the mainstream scholars is that DC operate on ordinary capabilities and that they differ from the latter by being related with change. And by doing so, the mainstream view has focused on what divides DC from ordinary capabilities rather than what joins them. Although scholars recognize that there exists a relationship between DC and ordinary capabilities, in that the former operate on the latter (Collis, 1994; Winter, 2003; Zahra et al., 2006) or they even affect one another (Zahra et al., 2006), they have been mostly analysed and represented as two isolatable, disparate categories. According to Chia and Nayak (2017), “it is *this very tendency to polarize and parse phenomena into smaller and disparate pieces using logic and language that creates the contradictory tensions and hence paradoxes we subsequently encounter*” (p. 129). Hence, the debate around dynamic/ordinary capabilities is just another instance of organizational paradox emerging from the efforts of some scholars at conceptualizing organizational capabilities through logic and language.

And by conceptually separating DC from ordinary capabilities, the traditional approach to DC is committed to an ontology of *being* rather than an ontology of *becoming*.

An ontology of *becoming* is originated in Heraclitus' view of reality as always in flux (Chia, 1995), echoed in his famous dictum that "no man ever steps in the same river twice, for it's not the same river and he's not the same man". For this Ancient Greek philosopher, as for the twentieth-century philosophers James (1996/1909), Bergson (1912) and Whitehead (1978/1929), reality is in a constant state of *becoming*. In contrast, an ontology of *being* is based on Parmenides' belief that reality is static and unchangeable (Chia, 1995), often explained in the motto "whatever is is, and what is not cannot be". An ontology of *being* is associated with an Aristotelian logic of representation of phenomena as if they were fixed and stable, since only by assuming the permanent and unchanging nature of reality it is possible to accurately represent it (Chia and Nayak, 2017). However, names, categories and symbols are not appropriate to grasp the underlying complexities of a *becoming*, indivisible reality. The representation of reality into concepts ignores what is absent, implied and cannot be expressed through language (Chia and Nayak, 2017). And that which is absent is the "other" that constitutes the one (Cooper, 2016/1983). An ontology of *becoming* emphasizes the logic of *otherness* which Chia (1999) describes as "an insistence that terms do not and cannot stand alone in and of their own right" (p. 219). It is illustrated in Cooper' (2016/1983) example of the humble screw and nut which "complete each other through the mediation of lacks and fills, for a screw is the fill of a nut that lacks and, conversely, a nut is the fill of a screw that lacks" (p. 59) and in this way they are "in-one-another, reflectively returning" (p. 59). The screw needs the nut and the nut needs the screw in order for both to have meaning. In a *becoming* ontology, screw and nut are not two isolatable categories, but rather inseparably entangled in a relationship in which one tends to its *Other*. As Deleuze (1999) would say, their identities emanate from differences and tensions between two opposing tendencies. In Ancient Chinese philosophy, the logic of *otherness* can be found in the principle of Yin and Yang, which represents the duality of all things that exist in the universe. According to this principle, all things exist as inseparable and contradictory opposites which are in continual and strong interaction. For example, negative and positive, male and female, night and day, life and death, inhalation and exhalation. We cannot have one without its *Other*.

Chia and Nayak (2017) explore the logic of *otherness* in organizational paradox such as exploration/exploitation, routine/change, individual/collective, radical/incremental. Following Chia and Nayak (2017), I contend that the same goes with dynamic/ordinary capabilities. Just like the screw and nut, DC and ordinary capabilities are not disparate categories; but rather, they complement or supplement each other. They are one example of the "in-one-anotherness" that Cooper (2016/1983, p. 59) has introduced. In Ancient Chinese philosophy, they would be the Yin and Yang of organizational capabilities. In a *becoming* ontology, the primary theoretical concern is not



about recognising the interplay between DC and ordinary capabilities which exists (Collis, 1994; Winter, 2003; Zahra et al., 2006). It is first and above of all about acknowledging that DC and ordinary capabilities are inseparably intertwined, they define and give meaning to each other through their everyday relationship, and cannot be lightly separated from one another. As such, any representational attempt that separates DC from ordinary capabilities, rather than joining them, does not capture this logic of *otherness* intrinsic to DC as a *becoming* phenomenon.

### **DC as a process that takes place *in between***

The DC framework was originally proposed to explain the sources of competitive and sustained advantage in fast changing environments (TPS). It was further developed around the idea that an organization with DC is more capable of reconfiguring resources to match the demands of changing environments (TPS; EM; Zollo and Winter, 2002; Winter, 2003; Zahra et al., 2006; Helfat et al., 2007; Teece, 2007), although some authors disagree with TPS in that highly dynamic environments are required for the existence of DC (e.g., EM; Zollo and Winter, 2002). I remind that the word 'dynamic' in the term DC was introduced by TPS to refer to "situations where there is a rapid change in technology and market forces, and 'feedback' effects on firms" (p. 512). Hence, it was not originally intended to designate the dynamic nature of DC themselves, but that of external changing environments which, in turn, may have consequences on how firms respond to environmental change. Authors of the DC framework emphasize an organization's capabilities "to address rapidly changing environments" (TPS, p. 516) and possibly shape them (Helfat et al., 2007; Teece, 2007, 2012), or "to match and even create market change" (EM, p. 1107). Hence, implicit in the concept of DC as it was originally framed (either by TPS, EM or their followers) is a clear separation between organization (internal capabilities) and environment (external context). This separation is also present in EM's debate around the impact of market dynamism on the patterns of DC and the sustainability of competitive advantage. By distinguishing between DC in moderately dynamic markets vs. high-velocity ones, and saying that in the former "competitive advantage is destroyed from outside the firm" (p. 1113), while in the latter "the threat to competitive advantage comes not only from outside the firm, but also ... from inside the firm" (p. 1113), EM literally assume that there is a clear boundary between external environment (outside) and organization (inside). In a similar vein, Teece (2007) acknowledges that such boundary exists when he asserts that "while the long-term performance of the enterprise is determined in some measure by how the (external) business environment rewards its heritage, the development and exercise of (internal) dynamic capabilities lies at the core of enterprise success (or failure)" (p. 1320).

This clear boundary between inside and outside, internal and external, is distinctive of a *distal* mode of thinking, as opposed to a *proximal* one (Cooper, 1992, Cooper and Law, 1995). *Distal*

thinking is related to “ready-made concepts, to the “finished” effects and outcomes of thought and action” (Cooper, 1992, p. 373), corresponding to a *substance metaphysics*’ style of thought (Chia, 1999). In contrast, *proximal* thinking refers “to process and event, to the continuous and “unfinished”” (Cooper, 1992, p. 373) and can be explained in terms of *process metaphysics* (Chia, 1999). The *distal* emphasizes “boundaries and separation, distinctness and clarity, hierarchy and order [while the] proximal manifests implication and complicity, and hence symmetry, equivalence and equivocality” (Cooper and Law, 1995, p. 239). According to Cooper and Law (1995), the conventional boundary (in the *distal* mode) between organization and environment becomes an “intervening medium, a point or line of passage for action, movement” (p. 240). Consequently, a *proximal* mode of thinking implies that action takes place *in between*, not inside or outside boundaries (Cooper and Law, 1995). The boundary, in this *proximal* sense, does not divide and separate organization and environment, but rather simultaneously divides and joins them through numerous encountering occasions for interaction (Cooper and Law, 1995). It is the boundary that “structures the interactions and meaning *between* social actors” (Cooper, 1986, p. 306).

This said, by emphasising the boundary between organization (inside) and environment (outside), the mainstream view of DC is committed to a *distal* mode of thinking, in opposition to a *proximal* one. *Distally*, DC are a static internal thing (processes or routines) that is ‘out there’ so that a firm can make use in order to cope with external changing environments, or even to create market change or shape the business environment. *Proximally*, I argue that DC must be understood as a happening or process through which they become what they are as an outcome of ceaseless and dynamic interactions that take place *in between*, not inside or outside boundaries. These interactions provide numerous opportunities for ‘dynamizing’ an organization’s DC while preparing it for future encounters with changing environments. Each interaction is therefore a learning opportunity for creating, reshaping and developing DC. Consequently, DC themselves are in a perpetual state of flux, they are unfinished effects of a constant flow of interactions that take place *in between*, not inside or outside boundaries.

At first sight, this understanding could resemble the ideas alluded in Teece (2007) that “the enterprise and its environment frequently coevolve” (p. 1341) and that through their actions, the business ecosystem participants<sup>6</sup> shape the environmental context. However, Teece (2007) does not elaborate sufficiently on how these premises effectively ‘dynamize’ capabilities or, at least, he does not elaborate them in a *proximal* manner. Teece (2007) proposes that a firm with DC is that which have the internal capacity to sense, seize and transform opportunities that exist in its external

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<sup>6</sup> In Teece (2007), the business ecosystem is comprised entrepreneurs and managers (i.e., organizational members) but also competitors, customers, suppliers, standard-setting bodies, and governments.

business environment. In particular, sensing capabilities refer to an enterprise's ability to recognize, assess, monitor, filter, interpret and shape developments in the business environment. However, by assuming the conventional boundary (in the *distal* mode) between organization and environment, and focusing on a firm's processes to sense market and technological opportunities, Teece (2007) does not explore what happens *in between*, that enables DC 'dynamizing'.

### 3.3.2 Process-oriented theories for approaching dynamic capabilities

Previously, I examined how process philosophy can be applied to an understanding of DC that contrasts with the mainstream, static view, addressing in particular the non-representational nature of DC, the principle of immanence, the logic of *otherness* and the focus on *in betweenness*. In what follows, I propose two process-oriented theories, organizational sensemaking and actor-network theory, that can aid such understanding, and discuss how they can contribute to tackle some important issues in the DC literature.

#### **DC as outcomes of organizational sensemaking**

In broad terms, sensemaking is a process through which individuals try to make sense of what is happening. Sensemaking is different from interpretation, as it involves "authoring as well as interpretation, creation as well as discovery" (Weick, 1995, p. 8). In this way, interpretation is only a component of sensemaking. While people interpret something that is out there to be discovered (Weick, 1995; Daft and Weick, 1984), sensemaking is an activity or a process through which people create, invent what they subsequently attempt to comprehend and interpret (Weick et al., 2005; Weick, 1995). Sensemaking starts with disorder and emerges out of the flux of lived experience and ongoing activities (Weick et al., 2005). As Weick et al. (2005) describe, "people organize to make sense of equivocal inputs and enact this sense back into the world to make that world more orderly" (p. 414). Applied to organizations, sensemaking is a process of ordering and organizing.

Sensemaking is particularly important in volatile and uncertain contexts, where individuals need to create meaning and order out of confusion and disorder so that they are able to interact and act collectively (Weick, 1993). Not surprisingly, sensemaking has become a relevant topic in the study of strategic change. In complex and turbulent times, companies often have to undertake a process of strategic change in order to remain competitive in the market or even to survive. Strategic change is frequently associated with a substantial shift in an organization's mission, purpose, priorities and goals (Gioia, Thomas, Clark and Chittipeddi, 1994). "It is usually accompanied by significant changes in patterns of resource allocation and/or alterations in organizational structure and processes to meet changing environmental demands" (Gioia et al., 1994, p. 364). Sensemaking in the context of

strategic change “has to do with meaning construction and reconstruction by the involved parties as they [attempt] to develop a meaningful framework for understanding the nature of the intended strategic change” (Gioia and Chittipeddi, 1991, p. 442). The findings of Gioia and Chittipeddi (1991) suggest that sensemaking in the context of strategic change is incomplete without its *Other* which is sensegiving. Sensegiving “is concerned with the process of attempting to influence the sensemaking and meaning construction of others toward a preferred redefinition of organizational reality” (Gioia and Chittipeddi, 1991, p. 442).

Empirical studies show that sensemaking (and sensegiving) can either produce or inhibit strategic change (see Maitlis and Christianson, 2014, for a review). On the one hand, sensemaking has been found essential for leaders (e.g., CEOs, top managers, top management teams) to create meaning around intended change, influencing the way they react, as well as the way they influence other stakeholders to understand, accept and act upon change (e.g., Gioia and Chittipeddi, 1991; Gioia et al., 1994; Balogun, Bartunek and Do, 2015). Middle managers’ sensemaking has also been found relevant for shaping meaningful constructions and acceptance of strategic change (Balogun, 2003; Balogun and Johnson, 2004, 2005). Their sensemaking and sensegiving activities were also found critical for interpreting and selling strategic change at the organizational interface (Rouleau, 2005). Successful managerial sensemaking has nevertheless been proved problematic when planned change is afterwards cancelled and the staff becomes reluctant to accept change reversal (Mantere, Schildt and Sillince, 2012). On the other hand, research has shown that organizational members’ failure in their sensemaking activities, namely by directing their attention to less critical events (Yu, Englemer and Van de Ven, 2005) or to past organizational structures, identity and practices (Nag, Corley and Gioia, 2007), can negatively affect strategic transformation processes. As Maitlis and Christianson (2014) summarize,

when leaders are able to influence others to understand the future in ways consistent with their redefined reality, strategic change is instigated and can progress through cycles of leader and member sensemaking. ... However, when deterrents to sensemaking exist in the form of deeply embedded practices, sticky prior accounts, or top team attention that is focused on alternative issues, organizations struggle to engage a deep and lasting change process. (pp. 90-91).

Although research has studied how organizational sensemaking enables (or inhibits) the accomplishment of strategic change, no study of which I am aware has linked sensemaking to organizational DC. This is surprising because DC have been framed as being related with change in dynamic and volatile contexts (TPS; EM; Zollo and Winter, 2002; Winter, 2003; Zahra et al., 2006; Teece, 2007; Helfat et al., 2007), which involves taking decisions and making choices with uncertain and limited information, therefore typical occasions for sensemaking. This said, I argue that DC

unfold as organizational sensemaking takes place during strategic change processes. DC are not something already given and 'out there' to deal with change. Instead they are constructed (or terminated) through the 'journey'. As research has shown, the journey toward strategic change often involves processes of organizational sensemaking, that is, processes of ordering and organizing people and activities in situations of ambiguity and uncertainty. The journey requires ongoing acts of making sense of strategy-related experiences and events. It involves social interaction and negotiation among organizational members so that they assign collective meanings about the new vision, priorities or goals of the organization, accept and commit to the change, and act upon collectively. It requires organizational members to make sense of strategy-related experiences and events in a reasonable and coherent way, which is collectively acceptable and credible, but not necessarily true. It is a journey in which organizational members, in the face of limited and equivocal information, need to extract and interpret particular signals (cues) in order to develop a larger sense of the whole strategic change process. While directing attention to cues is key for sensemaking processes, misdirecting may have serious consequences for strategic change (Yu et al., 2005; Nag et al., 2007). By enabling strategic change, a successful sensemaking journey facilitates the creation and development of DC. By deterring strategic change, a failed sensemaking journey inhibits that process. It is important to note that the relationship between sensemaking and DC that it is here proposed is not one of cause-effect. It is an ongoing and dynamic interactional relationship, through which DC necessarily undergo continuous change and transformation as collective processes of sensemaking take place toward effective strategic change. Viewed in this way, DC are a process-relational phenomenon, a social happening.

#### Contributions to DC scholarship

In the mainstream literature, dynamic managerial capabilities (DMC) have been pointed out as the microfoundations of organizational DC (Adner and Helfat, 2003; Helfat and Peteraf, 2015). According to Adner and Helfat (2003), DMC are underpinned by three factors: managerial cognition (i.e., managerial beliefs and mental models), social capital (i.e., social relationships) and human capital (e.g., education, training and learning). Empirical studies concerning the impact of DMC on strategic change (see Helfat and Martin, 2015b, for a review) typically have investigated the relationships between DMC-related variables (e.g., knowledge structures, mental processes, and emotions for managerial cognition; social ties, characteristics of social networks, and managerial relationships for social capital; and education and skills for human capital) and change-related variables (e.g., differences in performance, sales growth, international growth, entry into new markets) within the context of external change (e.g., Rosenbloom, 2000; Tripsas and Gavetti, 2000; Adner and Helfat, 2003; Peteraf and Reed, 2007; Sirmon and Hitt, 2009; Eggers and Kaplan, 2009;

Salvato, 2009; Prashantham and Dhanaraj, 2010; Martin, 2011a; Zott and Huy, 2019). In their review, Helfat and Martin (2015b) concluded that “empirical research shows that managers differ in their impact on strategic change and firm performance and that differences in managerial cognition, social capital, and human capital lead to different outcomes” (p. 1281).

By finding significant statistical relationships between individual-level variables and firm-level variables, the foregoing studies show that DMC impact strategic change, assuming in this way a direct cause-effect relationship. However, while DMC relate with the knowledge, aptitudes and skills of key managerial individuals, strategic change takes place at the organizational level, involving alterations in the way resources and competences are allocated and modifications in the organizational structure, routines, processes and procedures. Yet, DMC studies have focused on managerial decisions, choices and interventions, without providing fundamental descriptions or explanations on how managerial capabilities collectively operate to effectively produce change at the organizational level. Kor and Mesko (2013) suggested that as managers’ dominant logic guides managerial decisions over time, it “becomes embedded in a firm’s routines, procedures, and resource commitments” (p. 236), which in turn will influence a firm’s resource and competency configuration. Salvato and Vassolo (2018) proposed a meso-level element of interpersonal connections among firm’s employees, supported by productive dialogue, as a way of aggregating individual-level action into firm-level DC. Moving beyond this usual cognitive focus and acknowledging the *becoming* nature of DC, organizational sensemaking, as a process of ordering and organizing that involves social interaction and negotiation, offers an alternative meso-level way for explicating how individual-level capabilities collectively operate to effectively produce strategic change, and in this way enabling the creation and development of DC at the organizational level.

### **DC as interactional effects of heterogeneous networks**

In process thinking, the human world is viewed as a complex network of dynamic relationships and connections between the individual and its environment. The focus of analysis relies on the interspace *between* the human agent and the environmental objects that sustain it (Cooper, 2005). The world is described in terms of *relationality*, “where everything is relative to everything else, suspended in an interspace of betweenness” (Cooper, 2005, p. 1692-1693). Action takes place *in betweenness*, where the elements of the world connect to one another and, in this way, they also give meaning to one another (Cooper, 2005). Originated in the sociology of science and technology (e.g., Callon, 1986; Latour, 1987; Law, 1987), ANT approaches this idea of *in betweenness* in a very specific way. By considering the world as consisting of *networks* of relations, ANT focuses on the connections and interactions between the different actors that build and constitute those networks. Connectivity is the concretization of what is happening *in between*. It is where all the actors

link and potentiate one another. In addition, ANT does not separate human and nonhuman actors, rather it puts both on an equal plane (*principle of generalised symmetry*). Based on this principle, actor-networks are portrayed as chains of associations of humans and nonhumans (Latour, 1991b) or hybrid collectives (Callon and Law, 1995). They encompass both people and technologies (*principle of material heterogeneity*); and the two realities cannot be set apart, as they define and potentiate each other (Law, 1992). Knowledge (science and technology) in this view, as well as other collective institutions (such as the family, the organization, the economy, etc.), are social products, outcomes of networks of heterogeneous materials (Law, 1992).

An understanding of DC informed by ANT implies that we focus on the connections and associations of all human and nonhuman actors that are put together in action to generate strategic change. This implies that we think of strategic change as a heterogeneous *networking* activity, that involves the ordering and organizing of both people and objects onto decision making. Since interaction is all that exists (Law, 1992), I argue that DC are constructed (or terminated) as new connections and associations between humans and nonhumans are created, while others are abandoned, replaced or modified. This process is particularly visible in volatile and uncertain contexts, that call for change and transformation. Hence, DC must be interpreted as interactional effects of networks of heterogeneous materials. Networking, or establishing an actor-network, implies that people and objects are brought together “through persuasion, inducement, coercion or any combination of these” (Tummons, Fournier, Kits and MacLeod, 2018, p. 1914). However, “a network can break down at any point or link: consequently, the social project can be slowed down, misdirected or even lost, whether the broken link is an object (...) or a person” (Tummons et al., 2018, p. 1914). The same goes with the establishment of strategic change as an actor-network, with implications on whether and how DC will unfold over time. Moreover, since no networking activity is ever fully complete, DC are always unfinished effects of ‘heterogeneous engineering’.

#### Contributions to DC scholarship

Looking at DC literature, we realize that it offers two different approaches to DC in the mainstream literature. At a macro level, the organizational-based approach looks at the organization as a whole, and conceptualizes DC as firm processes and routines that change resources (TPS, EM, Zollo and Winter, 2002; Zahra et al., 2006; Helfat et al., 2007; Teece, 2007). At a micro level, the individual-based approach focuses on the individuals who actually make up the organization, and sees DC as rooted in the dynamic capabilities of managers that guide their strategic choices and actions (Adner and Helfat, 2003; Helfat and Peteraf, 2015). The latter approach follows Felin and Foss’ (2005) call “for strategic organization (and more broadly organizational) scholars to take individuals and micro-foundations more seriously” (p. 442). However, as Felin and Foss (2005)

indicate, a crucial question about an individual-level perspective is ‘who’ should be considered “fundamental for overall organizational outcomes and advantage” (p. 450). In this regard, the individual-based approach to DC presumes that mostly top managers, leaders and entrepreneurs (i.e., strategic and entrepreneurial managers) are the ones who, through their choices and decisions, can affect resource reconfiguration and strategic change (Adner and Helfat, 2003; O’Reilly and Tushman, 2008; Prashantham and Dhanaraj, 2010; Martin, 2011a; Martin, 2011b; Beck and Wiersema, 2013; Kor and Mesko, 2013; Helfat and Martin, 2015a; Helfat and Peteraf, 2015; Zott and Huy, 2019). This assumption is somehow supported by several scholars who, despite having conceptualized DC at an organizational-level, agree in that top managers, entrepreneurs and key executives play a critical role in strategic change (e.g., Zahra et al., 2006; Teece, 2007; 2012; 2014; Augier and Teece, 2009). An individual-based approach to DC, however, raises at least two issues. First, it puts strategic and entrepreneurial managers on a superior and distinct position relatively to other agents and technologies that form the resource and competence base. In this way, a single class of (human) actors (i.e., strategic and entrepreneurial managers) is assigned a dominant role in the microfoundations of DC (Adner and Helfat, 2003; Helfat and Peteraf, 2015). Second, by seeing DC as rooted in managerial non-routine actions rather than in organizational processes and routines, it separates the individual from the collective.

ANT, as a relational and process-oriented theory which does not treat people and objects differently and rejects any divisions between individual agency and structure (Law, 1992), offers one way of approaching the above type of issues altogether (Steen, Coopmans and Whyte, 2006). This implies that strategic and entrepreneurial managers must be put on an equal plane to other human and material actors in respect to strategic change. Borrowing the words of Steen et al. (2006), “This does emphatically not mean that managers cannot make a difference in their organizations. It does, however, open our eyes to the possibility that strategic agency might not always and necessarily permit or require a mastermind in control” (p. 307). In fact, it has been acknowledged that strategic practices are not restricted to top managers; they involve the actions and interactions of many other individuals such as middle managers, ordinary employees, consultants, investors, regulators, consumers (Jarzabkowski, 2005; Mantere, 2005). In addition, the capacity of technical materials (such as technologies, equipment, spreadsheets, documents and money) to potentiate strategic choice must also be considered. In the era of big data, I would emphasize, in particular, the capacity of artificial intelligence to extend or enrich strategic decision making, while at the same time learning from human behavior input data. The literature has shown that several physical resources have the capacity to conduct to DC, namely technological resources (Anand, Oriani and Vassolo, 2010), financial resources (El Akremi, Perrigot and Piot-Lepetit, 2015), and information technologies (Macher and Mowery, 2009; Pavlou and El Sawy, 2010). However, just like managerial capabilities,



the contribution of such physical resources to the building of DC has been studied in isolation, not in a symmetric association with other people and objects. Yet, organizations are made up of both humans and nonhumans, and both are always changing. By emphasizing the absence of boundaries between the human and the technical worlds, and focusing on connectivity, ANT offers one way of explicating DC as outcomes of processes of networking (ordering and organizing) of both people competences and capabilities and physical resources, while nesting the micro-, meso- and macro-level approaches into one another.

### **3.3.3 Concluding remarks**

This chapter explores the potential contribution of a process-based style of thinking for understanding organizational DC. An understanding that rejects ready-made categories and clear boundaries between organization and environment, but rather focuses on interactional processes that happen *in between* that empowers the strengthening or weakening of DC. Such understanding opposes but also complements the mainstream, entitative view of DC (mostly influenced by TPS's and EM's framings) that has favoured a cognitive and representationalist logic and language.

Although mainstream researchers agree in that DC concern change in dynamic and volatile contexts (TPS; EM; Zollo and Winter, 2002; Winter, 2003; Zahra et al., 2006; Teece, 2007; Helfat et al., 2007), they have conceptualized DC as (relatively) stable routines and processes. The recent content-analytic review of DC provided by Schilke et al. (2018) concluded that “The striking tension between dynamic change and (relatively) stable routines, although at the heart of dynamic capabilities, remains somewhat counterintuitive and underilluminated” (p. 421). The approach developed offers two process-oriented theories, organizational sensemaking theory and ANT, that can aid our process-based understanding of DC while contributing to disrupt with this ‘striking tension’. Although these two theories differ in their language and terminology and require different methodological approaches, both have in common the fact that they look at reality as a process of ordering and organizing. Applied to strategic change and DC, these two theories are connected through decision-making. Strategic change requires organizational members to make significant and complex decisions (about resource allocation and the organizational structure and processes) in dynamic and volatile contexts, therefore with limited and uncertain information. In such contexts, sensemaking is particularly relevant since organizational members need to extract cues from uncertain and ambiguous information in order to assign meanings to strategy-related events and experiences that will guide collective action and change. In addition, decision-making is frequently materially heterogeneous, as it requires that multiple people and objects (not only top managers but also other relevant stakeholders, as well as objects such as technologies, tools, reports and money)

be brought together in action for strategic change to effectively take place. Moreover, in the process-based view proposed, strategic change and DC walk together reciprocally shaping each other. On the one hand, “change is clearly not achieved instantaneously but only over time and through multiple steps” (Schilke et al., 2018, p. 407). As change happens, DC are created, constructed or terminated; a process that does not occur overnight. On the other hand, as DC unfold over time they also affect the manner in which change takes place. Both are enacted through ongoing processes of ordering and organizing. Interpreted as effects of ongoing processes of organizational sensemaking and networking of heterogeneous materials, DC necessarily incorporate into their own being past decisions on routines and processes, but they are always an expanded, novel creation of previous DC. This process-based view contributes to explain how DC “can affect change while at the same time following repetitious behavioral patterns that, despite their continuity, may ultimately also be subject to change as these routines are being performed, contextualized, and reinterpreted” (Schilke et al., 2018, p. 421). In addition, it contributes to connect individual actions (decision making) to collective structure (firm’s routines and processes), in this way disrupting with the separation between individual and organizational-level DC.

This novel look at the *becoming* nature of DC brings dynamism into the DC framework, while simultaneously challenging many of the theoretical underpinnings, assumptions and types of reasoning in the DC framework. Moreover, sensemaking and heterogeneous networking can help explaining the idiosyncratic nature of DC that Teece (2012) refers to as the “something else” that is non-routine. On the one hand, it should be expected that different people in similar situations extract and focus on different environmental cues and make sense of strategic-related events in distinctive ways, leading to different interpretations and collective actions, though all equally plausible and credible. Hence, in uncertain and volatile contexts, depending on how sensemaking is accomplished during strategic change processes, it should also be expected that different firms (with singular sensemaking activities) build distinctive DC through the journey. On the other hand, as an actor-network, strategic change is an expression of the relationships created between the heterogeneous materials that are enrolled into the network. Depending on how people and objects are connected to one another to generate strategic change, different patterns of social relationships and associations are generated, and consequently distinctive DC will unfold over time. Viewed as unfinished effects of organizational sensemaking or heterogeneous networking activities, which are ongoing, emergent and dynamic by nature, DC are also hard to replicate or to imitate. Hence, ultimately, specific processes of ordering and organizing may help explain the sources of competitive and sustained advantage.

Studying DC from a process-based perspective poses many challenges to scholars as it may be hard to observe and capture the emergent, immanent, dynamic and interactional nature of DC. As

Langley, Samllman, Tsoukas and Van de Ven (2013) refer, the challenges of studies that adopt a process ontology “are to unravel processes as they happen so as to develop an understanding of their underlying logic while providing a theoretical interpretation that reaches beyond description and can speak out to other situations” (p. 11). To investigate DC from a process view, scholars need to abstract from the traditional boundaries between individuals, organization and environment, acknowledging that they “are all in constant and mutually interacting flux” (Langley et al., 2013, p. 5). They have to focus on the interactions, connections and associations that are implicated in the processes of ordering and organizing, while observing the series of strategy-related events and experiences, in order to grasp how change and DC are enacted in practice.

In terms of type of data and methods of analysis, since researchers have to observe how processes unfold over time, the use of longitudinal data is mandatory (Langley et al., 2013). Qualitative research is more appropriate to investigate social interactions, but often requires mixed methods that combine archival and historical data (documents, texts, etc.) with interviews and real-time field observations (Langley et al., 2013). Researchers may opt for single case or multiple case studies, having in mind that what is more important in process studies is the number of temporal observations rather than the sample size (Langley et al., 2013). Depending on whether the researcher will focus on sensemaking or networking processes, there are different methodological implications. Whether the researcher is interested in investigating DC as interactional effects of heterogeneous networks, he/she must “follow the actors themselves or rather that which makes them act” (Latour, 2005, p. 237). In addition, the researcher must commit with the principles of generalized symmetry and material heterogeneity. That is, the researcher needs to acknowledge that “both people and objects are granted agency within ANT” (Tummons et al., 2018, p. 1914). Hence, strategic change (and the underlying decision-making processes that it involves) carry the influence of multiple people and objects and of their mutual interactions and associations. At the same time, while following the actors, the researcher must treat human and nonhuman actors symmetrically. “To be symmetric ... means not to impose a priori some spurious asymmetry among human intentional action and a material world of causal relations” (Latour, 2005, p. 76). Finally, but not least important, I emphasize that “ANT is a method, and mostly a negative one at that; it says nothing about the shape of what is being described with it” (Latour, 2005, p. 142). Hence, in order to understand DC from an ANT informed perspective, researchers must start with a blank sheet, without presuming their shape or assuming *a priori* deterministic relationships. In turn, whether the researcher wants to explore how DC unfold over time through processes of sensemaking toward strategic change, methods such as conversation analysis, discourse analysis and microethnography are often considered adequate (Maitlis and Christianson, 2014).

Langley et al. (2013) have called for more process-based studies of change in organization and management. Process studies that “take time seriously, illuminate the role of tensions and contradictions in driving patterns of change, and show how interactions across levels contribute to change” (p. 1). Notwithstanding, in their recent content-analytic review Schilke et al. (2018) concluded that a process-oriented approach to DC theorizing is still scarce in scholarship, comprised of few existing studies that have studied the evolution of DC over time (Fischer, Gebauer, Gregory, Ren and Fleisch, 2010; Jenkins, 2010) or shed light on the role of time (Bingham, Heimeriks, Schijven and Gates, 2015). The approach developed is a response to Schilke et al.’s (2018) invitation for researchers to approach DC from a process perspective. While I acknowledge that developing a process-based theory of DC is a large-scale and long-term project, I believe that the present approach introduces the key building blocks toward a process-based view of DC. By explaining DC as effects of ongoing, dynamic and social processes of organizational sensemaking or heterogeneous networking, I take the first steps into unpacking the processes of ordering and organizing that contribute to explain how DC are constructed (or terminated) over time.

## Chapter 4 A practice-based approach

*“Human activity is a complex systemic formation”*

Y. Engeström, 2015/1987, p. xxx

The practice turn in contemporary social theory has stimulated many organization and management scholars to adopt a practice perspective. Having started in the fields of innovation (e.g., Dougherty, 1992), accounting (e.g., Hopwood and Miller, 1994), knowledge and organizational learning (e.g., Blackler, 1993, 1995; Brown and Duguid, 2001) and technology (e.g., Orlikowski, 2000), this gradual movement to a practice turn has also penetrated the strategy arena (e.g., Whittington, 1996, 2002, 2003, 2006; Johnson, Meilin and Whittington, 2003; Jarzabkowski, 2003, 2005; Samra-Fredericks, 2003; Chia and Holt, 2006). Jarzabkowski (2005) indicates the following two reasons that have determined the practice turn in strategy. First, the rising frustration in strategy management research caused by the fact that strategy theory has been mainly developed on the basis of normative models and economic assumptions with little attention to human action. Second, the pursue of more dynamic theories by post-modern management sciences that has also contributed to a growing interest of strategy theory in the study of the real work of strategy practitioners and their strategizing practices. The practice turn in strategy research has given rise to the research field conventionally known as strategy-as-practice. Strategy-as-practice takes the view of strategy as a socially accomplished practice. It focuses on concrete actions and interactions of manifold individuals in the everyday life of an organization (Whittington, 1996, 2003, 2006; Jarzabkowski, 2003, 2005). In particular, strategy-as-practice is “concerned with the detailed aspects of strategizing; how strategists think, talk, reflect, act, interact, emote, embellish and politicize, what tools and technologies they use, and the implications of different forms of strategizing for strategy as an organizational activity” (Jarzabkowski, 2005, p. 3).

Emerging as an alternative approach to the mainstream view of strategy, a practice-based approach may contribute to explain the microfoundations of firm-level DC (Jarzabkowski, 2005; Regnér, 2008). In this chapter, I adopt a practice-based approach that explicates DC as a socially embedded construct. I start by introducing the turn to practice in contemporary social theory. I subsequently present the Cultural-Historical Activity Theory (CHAT) as a dialectical approach to practice. I then apply third-generation activity theory to develop a conceptual framework for effective strategic entrepreneurship (SE) that explains DC as emerging and developing from everyday individual and collective actions and interactions that take place within entrepreneurial and strategic organizations. I further discuss the contributions of the present activity theoretic

framework to DC scholarship and its methodological implications. I conclude with a critical assessment on CHAT use to DC theorizing.

## 4.1 The turn to practice

Practice theories, or theories of social practices, find the roots of social life in human practices. They emerged in the last third of the 20<sup>th</sup> century as a fresh approach to the “prevalent ways of thinking about human life and sociality, which have until [then] focused on individual minds and actions or social structures, systems and discourses” (Schatzki, Knorr-Cetina and Savigny, 2001, p. i). The dualism between ‘individualism’ and ‘societism’ has divided social theory since its inception (Schatzki, 2005). Individualism maintains that “social phenomena are either constructions out of or constructions of individual people and their relations” (Schatzki, 2005, p. 467). Societism holds “that social phenomena can be adequately analyzed and explained only by reference to facts about and features of collections of people (e.g., groups), as opposed to individual people” (Schatzki, 2005, p. 467). Practice theories emerged and developed as a desire to bridge this divide that prevailed in social theory (Whittington, 2006).

The ‘turn to practice’ in contemporary social theory, also known as the ‘practice turn’ or the ‘practical turn’, has been commented by several authors, namely Schatzki, Knorr-Cetina and Savigny (2001), Reckwitz (2002) and Stern (2003). Its philosophical roots are usually accredited to the German philosophers Martin Heidegger and Ludwig Wittgenstein, particularly Heidegger’s *Being and Time* (1962/1927) on the meaning of being and Wittgenstein’s *Philosophical Investigations* (1958/1953) on the meaning of language (Schatzki, 2001; Reckwitz, 2002; Stern, 2003). Earlier works of the social theorists Pierre Bourdieu (1972, 1977, 1990), Anthony Giddens (1976, 1979, 1984) and Michel De Certeau (1984) were highly influential to the theories of social practices. In what follows, I briefly elaborate on these seminal contributions to the practice turn.

Pierre Bourdieu’s theory of practice (1972, 1977, 1990) is largely focused on the concept of ‘habitus’ and its influence on human actions through which social structures are produced or reproduced. Bourdieu’s concept of habitus refers to the individual ingrained dispositions (internalized through past social interactions) that guide the individual day-to-day activity. “The dispositions of habitus are acquired informally through the experience of social interactions by processes of imitation, repetition, role-play, and game participation” (Swartz, 2002, p. 63S). However, in Bourdieu’s view, habitus only predisposes, but does not determine, the way the individual responds to the objective conditions it encounters. It is “determinant only in the sense of a hand of cards: once the hand is dealt, the cards are fixed, yet the outcomes of the game are still finally shaped by the skill of the players as the game unfolds” (Whittington, 2015, p. 151). In Bourdieu’s view,

although individuals may acknowledge their habitus-driven behavior, the latter is often tacit and unconscious; moreover, habitus shapes and is shaped by the social structure.

Anthony Giddens' (1976, 1979, 1984) theory of structuration, highly influenced by Wittgensteinian philosophy, also emphasizes the role of ongoing, regular practical activities in the reproduction of social systems (Whittington, 2015). Similar to Bourdieu's practice theory, Giddens' structuration theory finds in practice "a solution to the perennial problem between agency (the free initiation of actions) and structure (determinism): through actions, structures are both reproduced and transformed" (Miettinen, Samra-Fredericks and Yanow, 2009, p. 1313). In structuration theory, agency and structure are not separated entities, but rather interrelated and interdependent and have a dynamic relationship. On the one hand, human actors (individual or groups) participating in social systems draw on structures (rules and resources) to accomplish social practices (ongoing, regular practical activities). On the other hand, social structures are maintained, reinforced or modified through the exercise of agency (which is affected by actors' greater or lesser capacity to exercise control over resources, to follow or reject the rules). "Structuration happens as agents draw on the various rules and resources of their systems; as they do so, they either reproduce or amend the structural principles that organized their activities in the first place" (Whittington, 2015, p. 149). In other words, 'structuration' occurs as the actor encounters the structure through the exercise of agency; the term reflects the interdependence between structure and agency.

Michel de Certeau's (1984) book *The Practice of Everyday Life* is another seminal reference in the practice turn. De Certeau's (1984) inquiry of everyday life "is an attempt to theorize the tactics and practices by which "ordinary people" subvert the dominant economic order from within" (Langer, 1988, p. 122). De Certeau's (1984) distinguishes two groups in the modern society, the dominant institutions and structures (producers) and the dominated ordinary people (consumers); while the former defines the 'strategy' of the socio-economic order in a society, the latter subvert it through 'tactics'. Tactics are everyday practices of the common individual such as walking, reading and speaking. Everyday practices are forms of resistance against hegemonic structures. For de Certeau (1984), "the fact that everyday life takes place within an imposed system does not mean that everyday actors have no freedom" (Langer, 1988, p. 122). Through everyday practices, "ordinary people in fact do not surrender to power and its regulations. On the contrary, ordinary people produce new invisible forms of resistance" (Yilmaz, 2013, p. 68).

More recently, Theodore Schatzki (1996, 2002, 2005) has contributed with important works to the practice turn in contemporary social theory. Schatzki's seminal book, *Social Practices: A Wittgensteinian Approach to Human Activity and the Social* (1996), draws on Wittgenstein work to present his own account of social practices, followed by a critique of Bourdieu's and Giddens' practice theories. In his second book, *The Site of the Social: A Philosophical Account of the Constitution of Social*

*Life and Change* (2002), he develops an interpretation of social practices that is linked to the constitution and transformation of social life. Schatzki's theory, known as 'Site Ontology', has been refined in subsequent publications and applied by several scholars in the study of organizational phenomena (Loscher, Splitter and Seidl, 2019). Schatzki's site ontology contrasts with other practice theories, such as Bourdieu's or Giddens', in the sense that it assumes a flat ontology (Seidl and Wittington, 2014). A flat ontology situates practice at one single level of social life ('the site of the social'), flattening the macro-micro level distinctions between societism and individualism (Seidl and Wittington, 2014). Schatzki (2005) defines the site of the social as "a mesh of practices and material arrangements" (p. 472). Any practice is a collection of human actions organized by common understandings about what should be done and how, rules that guide and regulate the practice, and teleoaffective structures that embrace the practice ends, and the acceptable tasks, uses of things and even emotions (Schatzki, 2002, 2005). The actions that made up practices are mediated by material arrangements of four types: human beings, artifacts, other organisms and things (Schatzki, 2002, 2005). The site of the social implies that human lives are interconnected through chains of actions and a shared understanding (commonalities) as well as an orchestration of practices' ends, projects and emotions (Schatzki, 2002, 2005).

Other relevant contributions to the theories of social practices include: Harold Garfinkel's (1967) practical sociology settled around the concept of ethnomethodology; Michel Foucault's works on power and knowledge (1980, 1982); Charles Taylor's (1985a, 1985b, 1993a, 1993a) hermeneutical view of human agency and self-understanding; Jean-François Lyotard's (1984, 1988) conception of language as discursive practices; Hubert Dreyfus' (1991) definition of practices as everyday skills; Bruno Latour's (1991a) anthropology of science; and Yrjö Engeström's version of cultural-historical activity theory (1987, 2001, 2009). In Chapter 4.2, I elaborate on the latter.

Reckwitz (2002) realize that although practice theorists may have different approaches to practice theory, they seem "to be tied to an interest in the 'everyday' and 'life-world'" (244). Moreover, authors who embrace a practice orientation believe that phenomena such as knowledge, social order, social institutions, human activity, language, meaning, identity, power, science, or historical change emerge and develop from practices (Schatzki, 2001, Nicolini and Monteiro, 2017).

#### **4.1.1 Common elements in practice theories**

Although there is no unique definition of practice (Nicolini and Monteiro, 2017), there is a common understanding on what social practices mean in terms of body, mind, things, knowledge, discourse, structure and agent (Reckwitz, 2002). Social practices are bodily performances that involve arrays of mental activities, often require the use of objects, encompass knowledge and



intentionality, may be discursive or non-discursive, exist in patterns of behavior (routines) and do not exist without agents (Reckwitz, 2002). Rouse (2007) highlights six themes that are common to practice theories, although practice theorists may agree or diverge to a greater or lesser extent on their conceptions of such themes. These themes are thoroughly expounded by Rouse (2007), which I abbreviate as follows. The **first theme** is the common understanding that social practices are grounded on rules, norms, meanings and conventions. The **second theme** refers to the shared appreciation that social practices are formed by multiple individual actions while individual agency is governed or constrained by the relevant culture or society. At the same time, practice theorists agree that existence and dynamics of cultural and social structures may only happen “through their continuing reproduction in practices” (p. 506), that is, through the ongoing actions and interactions of multiple individual agents and practitioners. The **third theme** is the understanding amongst practice theorists that individual agency and social practices are materialized through human bodily performances, skills and habits, that are intentionally directed toward tasks and objects. The **fourth theme** is the recognition of the central role of language in social practices. However, while many practice theorists argue that social practices cannot be expressed discursively (emphasizing a tacit dimension of social practice), other “identify practices precisely by linguistically-articulated characteristics” (p. 515), and still other “take language itself as an exemplary social practice” (p. 515). The **fifth theme** refers to the relation between social science and social practice. Here, again, practice theorists’ conceptions may differ. While some conceive social science as objectively and disinterestedly detached from the practice itself, others consider it a practice itself. Another possibility is social science to take account for the theorists’ own scientific practice. The **sixth theme** is the defense of practice theory as “an autonomously social science” (p. 526), that highlights the social character of practices, their historical and cultural contexts, and rejects reducing them to psychological, economic or biological terms.

Nicolini and Monteiro (2017) indicate that despite practice theories “praxeologise their object of inquiry in different ways” (p. 111), they generally agree on the following principal characteristics: **i)** practices are comprised of smaller units of activity, be these actions, operations, tasks or projects; **ii)** practices are oriented toward an object (or purpose); **iii)** practices are never found in isolation, they are bound by relationships that can be either congruent or contradictory; **iv)** practices are reproduced through the collective, and learnt on the basis of what is right or wrong, suitable or restricted; **v)** practices involve norms and rules that are subject to shared scrutiny; **vi)** practices are materialized through human bodies and bodily conducts; **vii)** practices always implicate tensions and contradictions within and between the elements of a practice or different practices; **viii)** practices are situated in history and preserved in cultural artifacts; **ix)** practices are intrinsically local and time situated; **x)** practices are indeterminate as individual performances

always have to adapt to novel conditions, which triggers creativity and innovativeness; and **xi**) practices empower individual and collective agency but also give room for resistance (Nicolini and Monteiro, 2017).

#### 4.1.2 Practice approaches

In spite of the aforementioned characteristics or themes that tie practice accounts, there is no unified theory of practice (Schatzki, 2001; Miettinen et al., 2009). Practice theory is “rather a collection of authors and approaches interested in studying or theorizing practice, each of whom has his or her own distinctive vocabulary” (Miettinen et al., 2009, p. 1312). Nicolini and Monteiro (2017) describe practice approaches as a “family of procedures for praxeologising social and organisational phenomena” (p. 118), and identify four different strategies that practice theorists may follow: the situational approach, the genealogic approach, the configurational approach and the dialectical approach. In what follows, I elaborate on these four practice approaches based on Nicolini and Monteiro’s (2017) paper.

The **situational approach** involves studying the accomplishment of the practice by observing the practice at the site (e.g., corporate meetings, classrooms, hospital emergency rooms, trading rooms). In this approach, the researcher focuses on the performance itself, and his/her research questions will therefore address how the practice unfolds in real time, what artifacts are employed, what bodily skills are used, what “languages” are articulated. The main challenge of this approach is to disentangle the scenes of action of practice under inquiry from other related scenes of action that occur at the same time in the site. The **genealogic approach** focuses on the dynamics of the practice, how it emerges and evolves over time, or why it fades away. The researcher investigates questions related with the genesis of the practice, the changes that occurred over time in the elements of the practice and whether these relied on elements of other practices, the reasons why certain ways of doing the practice disappeared, or even how an old practice competes or complements novel practices (e.g., on-site teaching vs. online teaching). The major challenge of this approach is to define the boundaries of the practice under inquiry. The **configurational approach** studies a practice within the wider network of practices to which the former belongs. Scholars fond of this approach are interested in examining the other practices that are linked to the practice under study and in understanding the essence of such links. The resulting research questions comprise, for instance, the interdependencies between and the orchestration of related practices (e.g., teaching and homework), the artifacts and material objects that support the association between the practices, or how it was created in the first place. Finally, the **dialectical approach** consists of inquiring “into the dialectic of practices, i.e., the co-evolution, conflict, and interference of two or more practices” (p.

121). According to Nicolini and Monteiro (2017), this approach is less frequent “because it very much depends on all the three strategies above” (p. 121) but also yields “some of the most valuable findings as it addresses issues on which the interests of academics and practitioners coincide” (p. 121). Yrjö Engeström’s contemporary version of cultural-historical activity theory (CHAT) is one example of the dialectical approach. By studying how the contradictions and tensions that surface practices are worked out and resolved, this perspective offers possibilities for expansive learning. Typical research questions in the dialectical tradition relate with empowerment of subjects and forms of agency that support the current or alternative forms of practices, and the alignment between associated practices and between effective and required identity of participants in the configurations of practices.

#### **4.1.3 A dialectical approach for dynamic capabilities inquiring**

In Chapter 4.4, I draw on Engeström’s contemporary version of CHAT (Engeström, 1987, 2001, 2009), as it has been developed from the works of Lev Vygotsky (1978) and A.N. Leont’ev (1978, 1981) to propose an activity-based view of DC. But why a practice-based approach for DC inquiring? And more specifically, why a dialectical approach, such as CHAT?

My view is that a practice-based approach to the DC construct, focused on the daily actions and interactions of multiple internal and external actors to an organization, does justice to the idea that “conceptually [capabilities] cannot be separated from acting or practicing” (Schreyögg and Kliesch-Eberl, 2007, p. 915). Besides, “a practice perspective can shed light on the way capabilities emerge, are developed, modified and changed over time, furthering our understanding of the essence of dynamic capabilities” (Jarzabkowski, 2005, p. 7). Furthermore, a strategy-as-practice approach for examining the microfoundations of DC is needed to complement the evolutionary DC perspective and to advance a dynamic view of strategy more generally (Regnér, 2008).

However, a practice-based approach to DC inquiring only recently has started to receive attention from scholarship. Although some studies do not refer to practice theories, they follow an approach that explain DC as collective practices, such as shared systems for collectively encoding, storing and retrieving knowledge (Argote and Ren, 2012); social accomplishments generated by employees’ productive dialogue (Salvato and Vassolo, 2018); or regular actions and interactions of individuals (and not strictly managers) in organizations (Kurtmollaiev, 2020). A ‘truly’ practice-based approach to DC, in the sense that it has been inspired by the practice turn in social theory, has been recently advanced by Nayak et al. (2020). These authors draw upon Bourdieu’s theory of practice to propose the concept of “non-cognitive skilled adaptive actions that are habitus-driven” (p. 26) as the microfoundational substrate of DC. They contend that such non-cognitive substrate of DC explains how practitioners spontaneously and unconsciously adapt to environmental conditions and sense situational affordances available. According to Nayak et al. (2020), prior acquisition of such

skilled adaptive actions “through immersion in social practices” (p. 27) is a prerequisite for “the successful firm, entrepreneur or manager (...) to respond effectively to opportunities proffered by the environment” (p.27). By emphasizing the non-cognitive, unconscious mechanisms behind individual and collective actions, Nayak et al.’s (2020) practice-based approach contrasts with the mainstream view that is much focused on organizational processes and routines or managerial cognitive skills and abilities as the microfoundations of firm-level DC.

Despite the relevant contributions of the foregoing works, it is my understanding that they lack a clear focus on collective strategy practices, including their actors (and not restricted to individual managers), objects, rules and artifacts. In other words, a truly strategy-as-practice approach is needed in DC scholarship. In order to address this gap, I propose the CHAT lens as a dialectical approach to inform how DC emerge and develop from everyday individual and collective actions and interactions that take place within entrepreneurial and strategic organizations. A dialectical approach is contingent to the situational, the genealogical and the configurational approaches (Nicolini and Monteiro, 2017). Therefore, it offers higher potential than the latter alternatives for studying strategy as a social practice. In particular, the CHAT lens offers the following attractive elements: i) its dialectical nature centered around the role of tensions and contradictions that open up new possibilities for innovations and transformations; ii) its concept of mediators that link human actions and interactions with their environments, and with the socially-distributed activities; and iii) its coverage of multiple activity systems that allows the study of contradictory interacting activity systems with a partially shared object.

## **4.2 The Cultural-Historical Activity Theory**

Activity theory seeks to analyse development within practical social activities. Activities organize our lives. In activities, humans develop their skills, personalities, and consciousness. Through activities, we also transform our social conditions, resolve contradictions, generate new cultural artifacts, and create new forms of life and the self. (Sannino et al., 2009, p. 1)

The Cultural-Historical Activity Theory (CHAT) was initially developed in the psychology field (Vygotsky, 1978; Leont’ev, 1978, 1981; Luria, 1976), but its framework as elaborated by Yrjö Engeström (1987) has been shown useful for the study of many social practices such as healthcare (e.g., Greig, Entwistle and Beech, 2012; Engeström, 2001, 2000), human-computer interaction (e.g., Kaptelinin and Nardi, 2006; Nardi (Ed.), 1996), technology education (e.g., Bonneau, 2013; Anthony, 2011; Lim and Hang, 2003), conflict-monitoring networks (Foot, 2001), product design (e.g., Hyysalo, 2005), collaborative activity (e.g., Nardi, 2005), sustainable agriculture (e.g., Mukute and Lotz-Sisitka, 2012), environmental management (e.g., Gluch and Räisänen, 2012). In addition, it has been found

valuable within organizational theory for studies in the fields of strategy (Jarzabkowski, 2003, 2005, 2010; Jarzabkowski and Balogun, 2009), organizational knowledge and learning (Blackler, 1993, 1995; Blackler, Crump and McDonald, 1999, 2000; Blackler and Regan, 2009), organizational change (Holt and Morris, 1993; Prenkert, 2006; Blackler and Regan, 2009), and entrepreneurship (Holt, 2008; Jones and Holt, 2008), to name but a few. Yet, as far as I know, it has not been applied with the goal of explicating DC, namely its emergence and development within organizational settings. This thesis introduces the use of CHAT for the first time in the study of DC.

#### **4.2.1 Foundations of CHAT**

Activity theory was initiated in the 1920s and early 1930s by the Soviet cultural-historical psychologist Lev Vygotsky and his followers A. N. Leont'ev and Alexander Luria. Activity theory has its philosophical foundations in the Marxist conception that human nature is expressed through social practice. Contrasting with the positivist view that "society provides only an external environment to which man has to adapt himself in order to survive" (Leont'ev, 1978, p. 4), activity theory views human activity and individual development change as rooted in history, society and culture (Vygotsky, 1978; Leont'ev, 1978). Developed as an alternative to rational-cognitivism (Blackler, 1993), activity theory advocates that human development derives from complex, active social processes that are in permanent change. However, academia only started looking at the ideas of Vygotsky and his followers (e.g., Leont'ev, Luria) in the 1980s to early 1990s.

The political, social and intellectual setting that marked the years after the Russian revolution of 1917 was foundational to activity theory. Vygotsky, Leont'ev and Luria all witnessed the post-revolution period of historical turmoil in which people lived under extremely difficult conditions, while Russia was walking towards a new socialist society. Soviet scientists, intellectuals and artists were heavily influenced by the context of revolutionary change, in which a rapid changing society expected "science to solve the pressing economic and social problems of the Soviet people" (Cole and Scribner, 1978, p. 9). Responding to this demand, the scientific works of Vygotsky and his colleagues Leont'ev and Nuria were highly experimental and practice-based. Vygotsky, for instance, worked with children that had been affected by the Russian civil war; Leont'ev and Luria both continued Vygotsky's experimental and interventionist works in various settings (Sannino, 2011). Inexorably, activity theory is oriented toward practice, echoing "Marx's idea of revolutionary practice, [in which] theory is not only meant to analyse and explain the world, but also to generate new practices and promote change" (Sannino, 2011, p. 580).

A central feature of activity theory is the concept of human activities that are object-oriented and mediated by external cultural artifacts. This concept has its roots in Marx's and Engels' ideas that

human labor is mediated by material tools that change over the course of history and culture. Vygotsky's (1978) ideas were highly influenced by the German philosophy of Hegel, Marx and Engels (Dafermos, 2015; Marginson and Dang, 2017). Common to all of them and present in Vygotsky's (1978) methodological approach is the process thought that all "phenomena should be studied as processes in motion and in change" (p. 61), echoing Heraclitus's philosophy that "Everything is in flux". Although Vygotsky (1978) viewed human development as an active process that occurs within a social context, his original model of mediated act remained focused at the individual action (Engeström, 2001). It was Leont'ev (1978, 1981) who formalized the concept of collective activity that are realized through individual actions as a consequence of the division of labour (Engeström, 1987, 2001). Vygotsky's idea of mediated act and Leont'ev's contribution on the structure of a human activity system were fundamental to CHAT, and later elaborated by the Finish scholar Yrjö Engeström (1987).

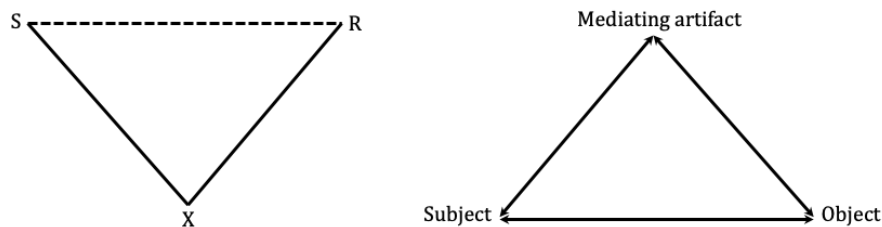
#### **4.2.2 Models of activity systems**

Engeström (2001) describes three generations of CHAT. The first generation was initiated by Vygotsky (1978) in the 1920s and early 1930s, who emphasized the role of cultural tools and signs as mediators of human actions and interactions with their environments. The second generation was inspired by the work of Leont'ev (1978, 1981), who formalized the concept of activity, and distinguished between individual action and collective activity. The third generation has been set around Engeström's (1987) triangular model of an activity system which has been further expanded to include multiple, at least two, interacting activity systems (Engeström, 2001). The three generations of CHAT as suggested by Engeström (2001) are described in detail below.

##### **First generation**

Grounded on Marx's and Engels' ideas, Vygotsky (1978) advanced a developmental and historical approach to human mind and behavior, in which human psychological functioning is mediated by cultural tools and signs, just like human labor is mediated by material tools. In this new approach, the basic binomial formula of stimulus → response is replaced by a triadic process where the simple link between the stimulus (S) and the response (R) becomes mediated by an auxiliary stimulus (external artifacts) that acts from the outside but "that operates on the individual, not the environment" (Vygotsky, 1978, p. 39) (Figure 4.1, left side; X represents mediation). Auxiliary stimuli include not only tools but also sign systems, such as language and writing, which "are created by societies over the course of human history and change with the form of society and the level of its cultural development" (Cole and Scribner, 1978, p. 7). This way Vygotsky (1978) introduced the concept of *cultural mediation of action*, which reflects the fact that human actions and interactions

with their environments are mediated by external artifacts (tools and signs) that change with societal and cultural development. Vygotsky’s graphical description of *cultural mediation of action* is usually expressed by contemporary activity theorists as the triad of subject, object and mediating artifact (Figure 4.1, right side).



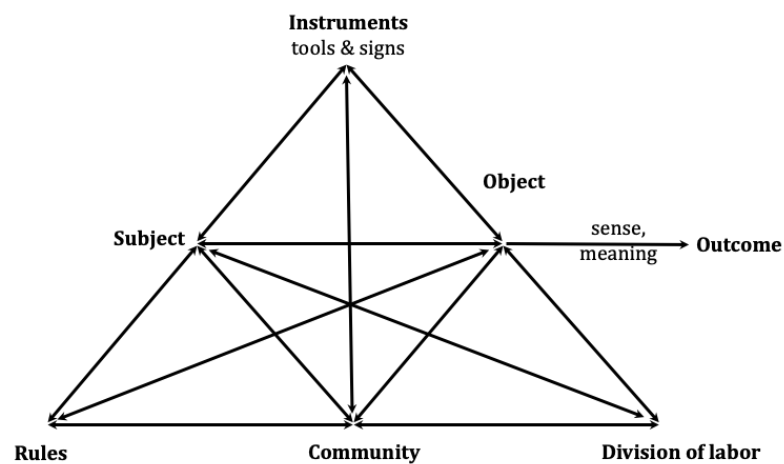
**Figure 4.1.** Vygotsky’s model of mediated act (on the left) and its usual contemporary reformulation (on the right) (Sources: Vigotsky, 1978, p. 40; Engeström, 2001, p. 134)

### Second generation

The second generation of activity theory started with the works of Leont’ev (1978, 1981), who explicated the three-level structure of activity, by distinguishing between the concepts of activity, action and operation. According to Leont’ev (1978): *operations* are unconscious, routinized methods that depend on the specific conditions for completing concrete actions; *actions* are tool mediated processes oriented toward conscious purposes (goals); *activities* are chains of goal-oriented actions directed by the respective activity’s object which is “its true motive” (p. 62). While it is the specific object (or motive) that stimulates and orients the actions that realize an activity, the chain of actions that form an activity are subordinated to conscious, particular goals, whereas the operations that are required to accomplish these actions vary accordingly with the conditions in which the concrete goals are assigned (Leont’ev, 1978). Leont’ev (1978) further argues that each activity has its own specific object (or motive): “The main thing that distinguishes one activity from another (...) is the difference of their objects” (p. 62). According to this argument, “It is exactly the object of an activity that gives it a determined direction” (Leont’ev, 1978, p. 62). This “determined direction” is a horizon that stimulates and orients the activity, but as Engeström (1999c) explains “being a horizon, the object is never fully reached or conquered. The creative potential of the activity is closely related to the search actions of object construction and redefinition” (p. 381).

The works of Leont’ev (1978, 1981) were fundamental to activity theory as they mark the expansion of the unit of analysis from individual action (which characterizes the Vygotskian original model) to collective activity. Leont’ev (1981) illustrates the difference between individual action and collective activity by an example of a tribal hunt, in which he demonstrates how an activity (hunting)

is realized through individual actions (e.g., frightening) as a consequence of the division of labor (Engeström, 1987, 2001). Although Leont'ev's (1978, 1981) works have represented crucial steps towards a model of collective activity system, Leont'ev never graphically expanded Vygotsky's original model of mediated act to account for social relations (Engeström, 2001; Foot, 2001). A graphical depiction of the structure of a human activity system situated within a wider social context (Figure 4.2) was first provided by Engeström (1987).



**Figure 4.2.** The structure of a human activity system (Source: based on Engeström, 1987, p. 78; Engeström, 2001, p. 134; Engeström and Sannino, 2010, p. 6)

In Figure 4.2, the uppermost sub-triangle originated in Vygotsky's model "may be seen as the 'tip of the iceberg' representing individual and group actions embedded in a collective activity system" (Engeström, 2001, p. 134). It comprises the *subject* (individual or group) that is engaged in the collective activity, the *object* to which the activity is directed, and the *instruments* (tools and signs) that the individual or group employ to realize the activity. Collective, tool-mediated and object-oriented activity produce an *outcome*. Transforming the object into an outcome is what motivates an activity. The three elements at the basis of the large triangle form the "social basis" of an activity system (Engeström, 1999a). Community may be distinguished from subject as follows. While subject refers to the individual or group engaged in the object of the collective activity through a specific action, *community* comprises "those who are part of the group oriented toward the same object, but are not engaging in that specific action" (Foot, 2001, pp. 61-62). *Division of labour* "refers to horizontal division of tasks and vertical division of power and status" (Engeström and Sannino, 2010, p. 6). *Rules* "refer to the explicit and implicit regulations, norms, conventions and standards that constrain actions within the activity system" (Engeström and Sannino, 2010, p. 6). The inner sub-triangle represents the complex relations between subject, community and object of a socially-



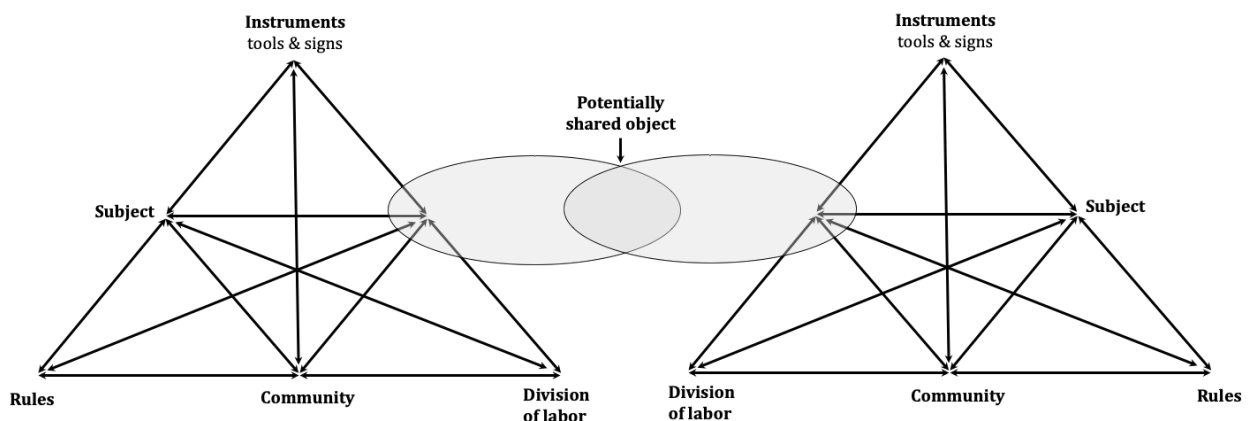
distributed activity. The arrows highlight the critical role of the mediators of such complex relationships, namely:

- i) of instruments (artifacts) as mediators of the participants' actions and interactions with their contexts (as outlined in Vygotsky's original model);
- ii) of division of labour as mediator of the relationship between community and the object-oriented actions of its participants (echoing Leont'ev's contributions on the impact of division of labour on individual actions); and
- iii) of rules as mediators of the subject's actions toward an object and the interactions between community participants in their shared activity.

Engeström's (1987) socially-distributed activity system is the smallest unit of analysis behind any complex activity "that fulfills the following demands: It is representative of the complexity of the whole, it is analyzable in its contextuality, it is specific to human beings by being culturally mediated, and it is dynamic rather than static" (Foot, 2001, p. 61).

### Third generation, and beyond

Third generation of activity theory has expanded the unit of analysis from a single activity system to multiple, at least two, interacting activity systems with a partially shared object (Engeström, 2001; Engeström, 2009) (Figure 4.3). "Such interconnected activity systems may form a producer-client relationship, a partnership, a network, or some other pattern of multi-activity collaboration" (Engeström and Sannino, 2010, p. 6).



**Figure 4.3.** Two interacting activity systems and a potentially shared object (Source: adapted from Engeström, 2001, p. 136; Engeström, 2009, p. 305)

In Figure 4.3, a potentially shared object emerges from two interconnected and interdependent activity systems, each with its own object, subject, tools, rules, division of labour, and community. As Engeström (2009) notes:

Objects are concerns, they are generators and foci of attention, motivation, effort and meaning. Through their activities people constantly change and create new objects. The new objects are often not intentional products of a single activity but unintended consequences of multiple activities. (p. 304)

Organizations, being places of collective work, represent prime settings for the analysis of multiple interacting activity systems (Engeström and Glăveanu, 2012). Work organizations can be seen as ‘networks of activity systems’, each with different objects, that act jointly within a broader ‘community of activity’ to generate a new shared object of activity (Blackler, Crump and McDonald, 2000). In addition, the expansion of the unit of analysis from a single activity system to multiple activity systems has opened up new opportunities for the study of topics such as power relations in organizational settings, subject positioning and emotional experiences (Engeström, 2009), which nevertheless are still under developed in activity theory (Daniels and Warmington, 2007).

#### 4.2.3 The dialectical role of contradictions

Activity systems are in constant flux. The sources of change and evolution of an activity system arise from its inner contradictions, described by Engeström (1987) in four different levels: primary, secondary, tertiary and quaternary, and elaborated below.

The **primary contradiction** in all activities in capitalist socio-economic formations takes place within each of the elements of an activity system (subject, instruments, object, rules, community, and division of labor), and lives in the inner conflict between the object’s use value and exchange value (echoing the Marxist idea that the dual nature of the commodity, its use value and exchange value, are the sources of social antagonisms in capitalism). For example, the primary contradiction within the *object* of medical care practice refers to the opposition between patient and customer, that is, “patient as person to be helped and healed versus patient as source of revenue and profit (or on the flip side, as opportunity to profit by cutting costs)” (Engeström, 1999b, p. 65). Similarly, doctors (the *subject*) face competing concerns about nurturing the health of patients (healing) vs. earning a living. *Instruments* employed by doctors in their practice, such as medicines or medical equipment, have utility but also a price. Primary contradictions are also reflected in the *division of labor* (e.g., individual vs. collaborative work), in the *rules* (e.g., efficient clinical protocols vs. effective non-conventional approaches), or in the *community* (e.g., informal vs. institutional

membership). As primary contradictions are never solved, they keep nurturing the other layers of contradictions (Foot and Groleau, 2011).

**Secondary contradictions** emerge when the activity system interacts with other activity systems and occurs between different elements of an activity system. For example, imagine that new, highly advanced medical technologies are available in the market, which are much more effective (in terms of diagnosing/healing) but far more expensive than current solutions. This event generates a second contradiction, that opposes the (costly/effective) instrument with the doctors' primary concerns (healing/earning a living). Now imagine that old diagnosis tools require the presence of only one doctor, while modern technologies require the assistance of additional healthcare professionals. In such case, the new instruments also conflict with the current division of labor which will have to be modified accordingly.

**Tertiary contradictions** occur between old and new elements that coexist within an activity system, such as old and new subjects, old and new rules, old and new objects, etc. Tertiary contradictions arise when the object of a "culturally more advanced" (Engeström, 1987) form of activity is introduced into an activity system as an alternative to the object of the prevailing form of activity. The introduction of the alternative object is often aimed at solving or alleviating secondary contradictions, and usually leads to the reorganization and reconfiguration of the activity system (a new developmental phase). Continuing with the example above, imagine that old doctors do not trust modern technologies and refuse to employ them in their medical practice. If they work for a private clinic, the administrators may hire new doctors to resolve this secondary contradiction. Tertiary contradictions are enacted when the new doctors try that patients have access to the most advanced and technology-based medical care as an alternative to the current object of conservative practice. Most probably, while the new doctors attempt to implement modern practices, they will also have to subordinate their actions to the old form of activity. Tertiary contradictions live in the coexistence of old and new elements, enacted by new possibilities that oppose the current object. As new possibilities develop (expanded object), the activity system is reorganized and reconfigured toward a new developmental cycle.

**Quaternary contradictions** originate in the interactions between related activity systems when the object of an activity system is transformed (expanded object). As Blackler (1993) explains "Activity systems do not exist in isolation one from another; the outputs of one system provide the inputs to another" (p. 871). In the medical care example, the doctors' activity system relates with the activity systems of patients, technology providers, insurance companies, regulators, etc. As doctors offer technology-based medical care (expanded object), patients may resist to this new form of practice, insurance companies may not cover the cost of diagnostic tests or treatments that are done with the support of new technologies, regulators may impose new rules for the adoption of new

technologies, and so on. These are examples of quaternary contradictions that arise from the developmental transformation of the object of a medical care activity system.

Developmental transformations “are seen as attempts to reorganize, or re-mediate, the activity system in order to resolve its pressing inner contradictions” (Engeström, 1999b, p. 67). Foot (2001) highlights that contradictions “reveal opportunities for creative innovations, for new ways of structuring and enacting the activity. (...) They are not obstacles to be overcome in order to achieve goals. Rather than ending points, contradictions are starting places” (p. 63). In other words, by opening up new possibilities for innovations and transformations, the dialectical nature of contradictions within and between activity systems is the driving force to the latter’s expansion cycles. Hence, activity systems move through developmental expansion cycles pushed by historically evolving inner contradictions (Engeström, 2001). “A full cycle of expansive transformation may be understood as a collective journey through the zone of proximal development of the activity” (Engeström, 2001, p. 137). The zone of proximal development is “the distance between the present everyday actions of the individuals and the historically new form of the societal activity that can be collectively generated as a solution to the double bind potentially embedded in the everyday actions” (Engeström, 1987, p. 174).

### **4.3 Applications and adaptations of CHAT**

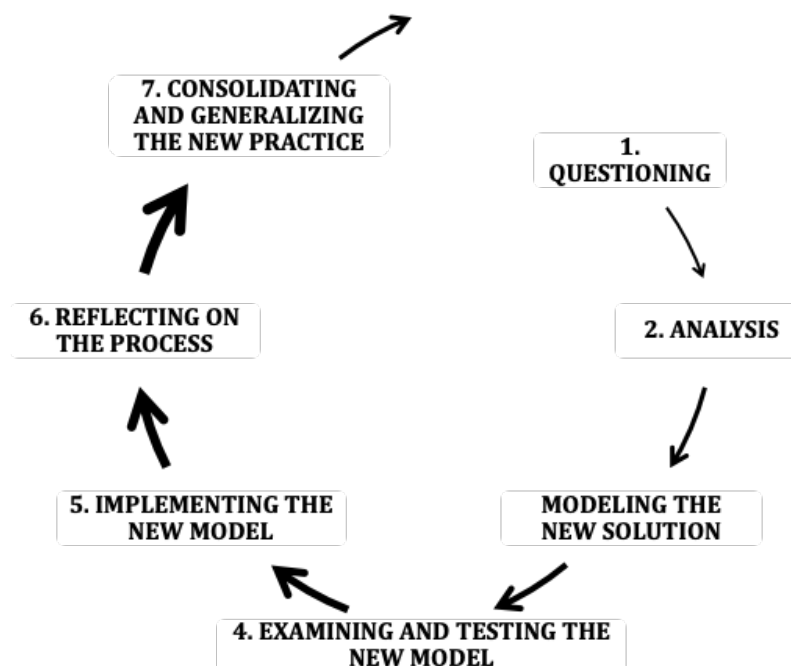
Engeström (2001) suggests the following five principles (already discussed in previous sections) to describe contemporary CHAT framework:

- 1) the primary unit of analysis in cultural-historical studies of human behavior is the object-oriented and artifact-mediated collective activity system, which must be understood within a wider network of related activity systems;
- 2) an activity system encompasses the multiple perspectives and approaches (voices) of the various participants. “The multi-voicedness is multiplied in networks of interacting activity systems. It is a source of trouble and a source of innovation, demanding actions of translation and negotiation” (p. 137);
- 3) activity systems are situated in a cultural-historical context. “Their problems and potentials can only be understood against their own history” (p. 137);
- 4) contradictions within and between activity systems have a critical role as sources of change and development of activity systems;
- 5) activity systems move through developmental expansion cycles pushed by historically evolving inner contradictions.

### 4.3.1 The theory of expansive learning

In *Learning by Expanding*, Engeström (1987) draws upon CHAT to develop an innovative theory of expansive learning. In the CHAT tradition, his theory is founded on the dialectical concept of contradiction. Expansive learning is “a process of working out and resolving contradictions in the activity to be transformed” (Engeström, 2015/1987, p. xx). More specifically, expansive learning arises as “participants of an activity system take specific learning actions to analyze the inner contradictions of their activity, then to design and implement a new model for their activity that radically expands its object, opening up new possibilities for action and development” (Engeström and Kerosuo, 2007, p. 3). The sequence of learning actions, – starting with questioning the accepted practice, proceeding to analyzing its inner contradictions, going through modelling a new solution envisioning the zone of proximal development, then examining and implementing the new model, reflecting on the process of expansive learning, and ending up with the new model consolidated in practice (Figure 4.4) – form an expansive learning cycle (Engeström, 2001).

Learning takes place as activity systems move across collective *zones of proximal development* (Engeström, 1987). In an expansive learning cycle, as participants (learners) of an activity system travel across collective zones of proximal development, they learn “new forms of activity which are not yet there” (Engeström, 2001, p. 138). This means that “the learners construct a new object and concept for their collective activity, and implement this new object and concept in practice” (Engeström and Sannino, 2010, p. 2).



**Figure 4.4.** Sequence of learning actions in an expansive learning cycle (Source: adapted from Engeström and Sannino, 2010, p. 8)

### 4.3.2 CHAT as a framework for the study of social practices

CHAT framework and the theory of expansive learning developed in the CHAT tradition have been applied to a wide variety of social practices. In healthcare practices, they have been applied, for instance, to redesign work and to examine the learning challenges of children's medical care in Finish hospitals (Engeström, 2000, 2001), to implement 'best practices' across primary care teams in Scotland (Greig et al., 2012), to examine the implementation of organized visits of home care workers to home care clients in Finland (Nummijoki, Engeström and Sannino, 2018). In particular, Nummijoki et al. (2018) explore how large-scale cycles of expansive learning involve smaller cycles of learning actions, the tensions between the old and the new practice, the co-existence of both expansive and defensive learning actions, and the interplay between parallel learning cycles of the home care clients and the home care workers.

In human-computer interaction (HCI) practice, Nardi's (Ed.) (1996) book explores the potential of activity theory as an alternative approach to mainstream HCI research. For example, Kuutti (1996) presents an overview of how activity theory may contribute to broaden the scope and design of HCI studies. The book also provides several studies on practical HCI design problems and cases developed from the lens of activity theory. In another book, Kaptelinin and Nardi (2006) present, discuss and expand the worth of activity theory to interaction design.

In educational technology practice, activity theory has been used, for example, as a framework to understand the impact of new technologies on educational change (Bellamy, 1996); in the analysis of how technology use may affect the learning experience of teachers and students in higher education settings (Issroff and Scanlon, 2002); in the analysis of systemic tensions in participatory learning environments that use emerging technologies (Barab et al., 2002); in the design of mobile learning environments (Uden, 2007); as a framework for studying the success of technology integration in school settings (Anthony, 2011; Lim and Hang, 2003); in the study of CHAT contradictions manifested in the implementation of an open source learning platform within a university (Bonneau, 2013).

Activity theory has been applied in other diversified practices. Foot (2001) employs CHAT to study the creation and development of a conflict-monitoring network in the former Soviet Union. Hyysalo (2005) apply activity theory framework for analysing product design, focusing on the concepts of object and motive. Nardi (2005) uses activity theory to analyse the nature of collaborative scientific research in a large pharmaceutical company, with particular emphasis on power and passion behind collaboration in scientific research. Daniels and Warmington (2007) draw on third generation activity theory to examine professional learning in interagency practices in England; the

study emphasizes the need to understand networks of interacting activity systems in terms of labour-power related contradictions, subject positioning and emotional experiencing. Roth (2007, 2009) incorporates emotions into activity theory, and demonstrates how emotion and emotional valence (and other related dimensions, such as identity and motivation) mediate individual practical actions in collective practical activity, and how they are continuously produced and reproduced within an activity system. Mukute and Lotz-Sisitka (2012) use CHAT to investigate the contradictions and the underlying learning processes behind the introduction and development of sustainable agricultural practices in southern Africa. Gluch and Räisänen (2012) explore how the interplay between environmental management and project practices unfold onsite, also analyzing the tensions emergent from the contradictions within these activity systems. Engeström, Rantavuori and Kerosuo (2013) piloted a developmental intervention to redefine the services, work practices and organizational structure of the University of Helsinki Library.

### **4.3.3 CHAT in the organizational theory**

Activity theory has also been found valuable in organizational studies, and “is particularly apposite to the study of Strategy as Practice because it enables a study of strategy practitioners that also pays attention to the strategy practices that they draw upon and the strategy praxis in which they are engaged” (Jarzabkowski, 2010, p. 129). In what follows I introduce some relevant works to illustrate how activity theory has been used in organizational studies.

#### **Organizations as activity systems**

Blackler (1993) proposes a theory of organizations as activity systems that develops from Engeström’s (1987) version of activity theory. However, he does not agree with Engeström’s (1987) Marxist belief that the geneses of all internal contradictions of activity systems live in the inner conflict between the object’s ‘use value’ and its ‘exchange value’. Instead, he suggests an interpretation of the internal contradictions of activity systems that situates them within their specific institutional, historical and cultural circumstances. Blackler’s (1993) approach relies on the following key concepts:

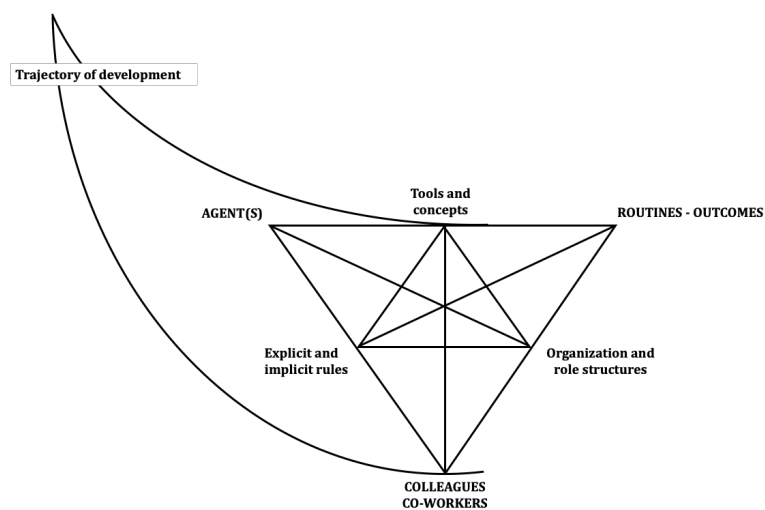
- 1) *The concept of activity* highlights the collective nature of activities, comprised of a coherent corpus of various individual actions;
- 2) *The nature of activity systems* emphasizes the significance of tools, rules and division of labour as mediators and transformers of complex relationships between individuals, communities and shared object;

3) *Active participation* is the process through which both personal and collective learning take place; while the former is primarily tacit and happens when novices join the activities, the latter occurs as “communities construct new conceptions of their activities and develop new activity systems” (p. 875);

4) *The significance of history* suggests that activities are local and time situated;

5) *The prevalence of incoherence and dilemma* is an intrinsic characteristic of activity systems and the cradle of both personal and collective learning.

Blackler’s (1993) model of organizations as activity systems (Figure 4.5) draws upon Engeström’s triangular model of the structure of human activity (Figure 4.2). Yet, he introduces certain variations aimed at reflecting his non-Marxist approach to internal contradictions, and also to make his model representative of organizations as sites for activity. Firstly, Blackler (1993) replaces the shared ‘object of activity’ with ‘organizational routines’, suggesting that the effective execution of activities in an organization depends on a common understanding on *what* people need to do, rather than an agreement on *why* something needs to be done. His idea originates in Nelson and Winter’s (1982) conception of organizational routines as co-ordinated behaviours through which activities take place in organizational settings. In order to adjust his model to the language of organizational studies, Blackler (1993) also replaces ‘subject’ with ‘agent(s)’, ‘community’ with ‘colleagues and co-workers’, and ‘division of labour’ with ‘organization and role structures’. Secondly, Blackler (1993) proposes swapping the inner triangle with the outer triangle, so that tools and concepts, explicit and implicit rules, and organization and role structures stay closer to each other, reflecting the need to nurture the relationships between key structural elements within contemporary organizations. Finally, by introducing the ‘trajectory of development’ into the model, Blackler (1993) situates the organization within its socio-historical context, also emphasizing a process-based view of organizations as activity systems that evolve and expand over time.



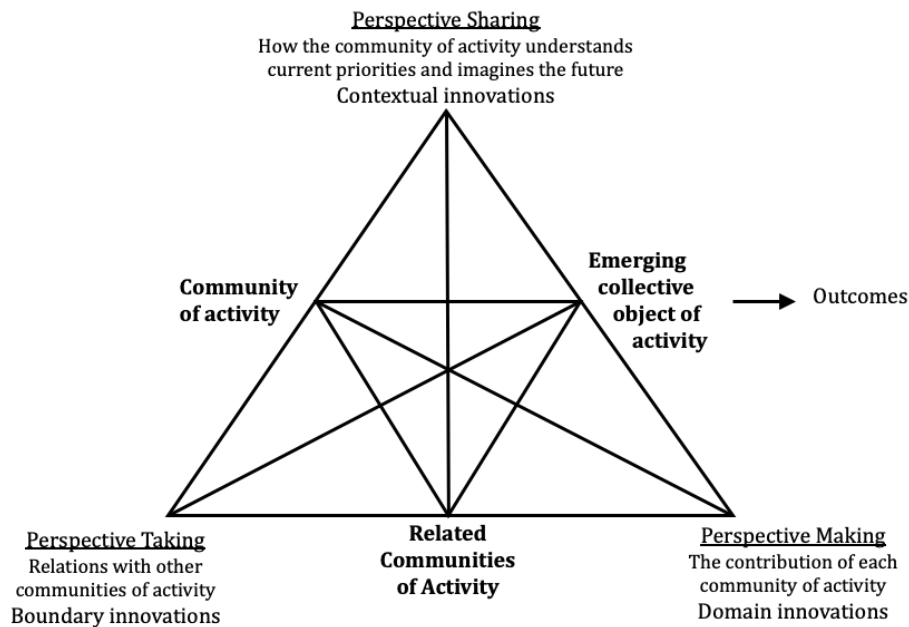
**Figure 4.5.** Organizations as activity systems (Source: Blackler, 1993, p. 876)



### **Organizations as networks of activity systems**

Blackler, Crump and McDonald (2000) developed an activity theory framework for studying organizations as networks of overlapping activity systems (i.e., activity networks), instead of single activity systems. They argue that “the overall objects of the activity and patterns of collaboration in complex organizations are much more difficult to see and to represent. They tend to be multiple, only loosely connected, emergent, abstract and contestable and depend upon key features of the activity systems used by participants” (p. 283). In their framework, activity networks are formed by ‘communities of activities’ defined “in terms of the extent to which members recognize shared work priorities, work with a common cognitive and technological infrastructure, and support each other’s activity” (p. 282). Hence, organizations can be seen as activity networks comprised of several communities of activities (with different and even competing objects of activity), that act jointly to generate a new collective object of activity (Blackler et al., 2000). To match this conceptualization, Blackler et al. (2000) replace the ‘subject’ and ‘community’ elements of Engeström’s (1987) model with ‘community of activity’ and ‘related communities of activity’, respectively (Figure 4.6). By conceptualizing organizations as networks of activity systems, Blackler et al. (2000) highlight that “Collaboration across different systems of activity raises issues concerning priorities, identities and operational methods, as well as questions about relative authority and influence” (p. 282). They further contend that “*Co-operative relations between communities of activities are mediated by the processes of ‘perspective making’, ‘perspective taking’ and ‘perspective shaping’*” (p. 285).

Blackler et al. (2000) applied their framework to study co-operation processes between different strategy development groups in a high technology company that was facing external technological developments and wanted to review its strategy. They found that the objects of the three groups varied significantly, while the participants of each group also had different perspectives about what should be done, and each group coped differently with the tensions and dilemmas of the respective activity system.



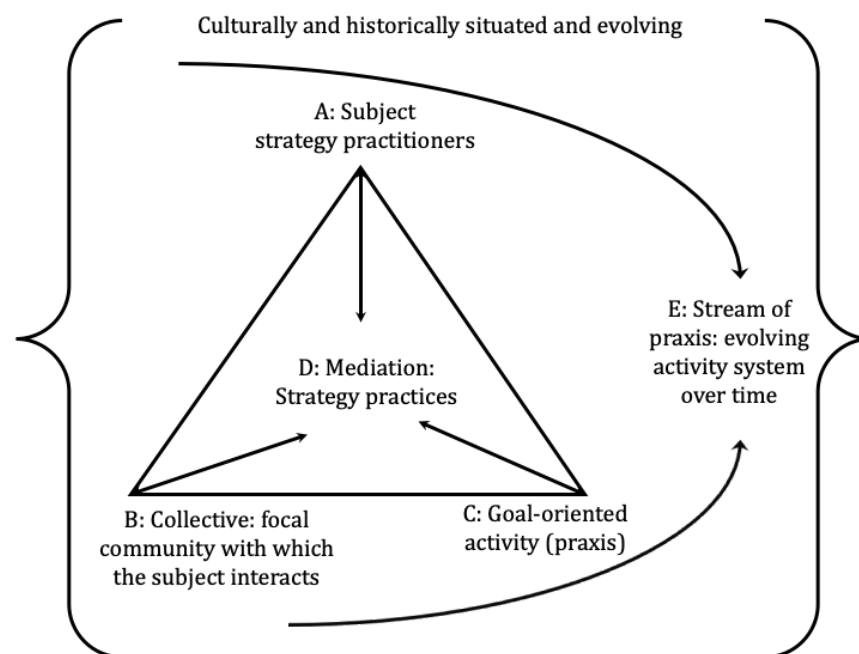
**Figure 4.6.** Organizing Processes in Activity Networks (Source: Blackler et al., 2000, p. 283)

### Activity theory in strategy practice

By suggesting a model of strategy-as-practice that is built on Engeström’s (1987) activity theory, Paula Jarzabkowski (2003, 2005, 2010) has pioneered the application of activity theory to organizational strategy. In her first paper that draws upon activity theory, Jarzabkowski (2003) interprets strategic practices as mediation ‘tools’ through which actors and collective structures interact and engage in practical activity. By analyzing the strategic practices (direction setting, resource allocation, and monitoring and control) of three UK universities, Jarzabkowski (2003) has explored how such strategic practices implicated the continuity or change of the universities’ strategic activity over time. Jarzabkowski has developed her activity-based model for strategy-as-practice further, and, in 2005, she published the book *‘Strategy as practice: An activity-based approach’*, which has become an important contribution to the strategic management field (Kaplan, 2008). In her book, Jarzabkowski (2005) establishes the theoretical and methodological grounds of an activity-based framework for studying strategy-as-practice, and provides empirical applications of such framework to strategy-making practices in university settings.

Jarzabkowski’s model of strategy-as-practice, as elaborated in Jarzabkowski (2010), is depicted in Figure 4.7. The model comprises three main elements of interaction: the subject (the strategy practitioners, often top managers), the collective community (the other members of the broader organization with whom the subject interacts so that strategy gets done), and the goal-oriented activity (the strategy). The strategy practices, represented in the middle of the triangle of Figure 4.7, “refer to the institutionalized rules of strategy formation and their organizationally

situated realization as administrative practices and social norms” (Jarzabkowski, 2005, p. 42). In Jarzabkowski’s (2005) book, these rules “are defined as those old staples, direction setting, resource allocation and monitoring and control, which are three strategy processes that hierarchically coordinate the formulation and implementation of strategy” (p. 47). Jarzabkowski (2005) further distinguishes between procedural and interactive firm-specific micro practices. While the former “deals with the use of formal administrative practices, such as plans, budgets and trend analyses and their associated committees and procedures, through which strategy is coordinated, documented and formally embedded within an organization” (p. 51), the latter “involves direct, purposive, face-to-face interactions between top managers and other actors” (p. 51). According to Jarzabkowski’s (2005) model, these strategizing practices mediate the interactions between the former elements of the activity system in the accomplishment of strategy.



**Figure 4.7.** An activity framework for strategy-as-practice (Source: Jarzabkowski, 2010, p. 130)

By adopting the practice lens, Jarzabkowski (2005, 2010) views strategy as a culturally and historically situated and evolving activity. Conceptualizing strategy as a situated activity means that doing strategy both shapes and is shaped by the activity system within which the strategy occurs (Jarzabkowski, 2005, 2010). This is evident, for example, in the case studies of universities, where Jarzabkowski (2005, 2008) found that although all three UK universities pursued “four similar streams of strategic activity; research, teaching, commercial income and size and scope (...), their ways of doing these similar streams of activity varied in accordance with the different cultural and

historical practices of the activity systems that comprised the universities” (Jarzabkowski, 2010, p. 132). The idea of activity as evolving over time is indicated by the curved arrows in Figure 4.7, which intend to describe strategy as an ongoing process of becoming (Jarzabkowski, 2005, 2010).

According to Jarzabkowski (2005, 2010), as mediators, strategic practices do not merely coordinate and regulate the strategic activity but rather shape the accomplishment of strategy over time. In addition, as part of a culturally and historically situated activity system, strategic practices are themselves in a process of evolving, as they are continuously created and modified to take account for the different interests and positions of the actors in the activity system (Jarzabkowski, 2005, 2010). Moreover, it is through the mediating strategic practices that key subjects within an activity system “come to accommodate each other in pursuing common activity” (Jarzabkowski, 2010, p. 134). These aspects of the mediating role of strategic practices are demonstrated in Jarzabkowski and Balogun’s (2009) empirical study of how a new strategic planning of a multinational organization is able to deliver greater strategic integration across Europe. Drawing upon activity theory, Jarzabkowski and Balogun (2009) examine “how a common strategy emerges over time through modifications to the planning process and to different actors’ roles within it” (p. 1255). Their findings show that the strategic planning has evolved over time within the global organization in order to accommodate the different business units’ interests and local markets; it has also allowed evolving and reciprocal relationships between subject positions of different participants involved in the strategic planning process.

### **Other applications of activity theory in organization studies**

Within organization studies a diversity of other applications of activity theory can be identified. To mention but a few, in organizational change, Holt and Morris (1993) use activity theory to conduct a retrospective analysis of the Challenger space shuttle accident. Their study emphasizes the role of internal contradictions as inevitable for “organizational *function*, not *dysfunction*” (p. 108), as they have served as a stimulus for positive change in the flight readiness activity system (after the accident, the priority of NASA changed from cost-efficiency to safety first). Prekert (2006) proposes activity theory as a systematic tool to study paradox in organized activity. Blackler and Regan (2009) presents an activity-based study of the reorganization of social services for vulnerable children and families. In organizational learning, Blackler (1995) provides an activity-based view of knowing as mediated, situated, provisional and pragmatic and suggests an extension of activity theory to account for knowing as contested. Blackler, Crump and McDonald (1999) apply an activity theory approach to analyse organizational innovation and learning processes within manufacturing organizations, which findings highlight the role of tensions within and between activity systems, and the challenges that experts must face in highly innovative industries. Macpherson et al. (2010) draws upon three

case studies of small firms to demonstrate how everyday artifacts (identity, discursive, systemic, reflection, space and time, and political) that are used in shared organizational practices may support organizational learning processes. In the field of entrepreneurship, Holt (2008) asserts the social nature of opportunity recognition and its pursue through the creation of a business, and use activity theory to investigate cycles of entrepreneurial learning. Jones and Holt (2008) further develop an activity theory framework for entrepreneurial activity in the form of creation of new business ventures (NBV).

#### **4.4 An activity-based view of dynamic capabilities**

Having presented activity theory and its application in organization and strategy studies, this section introduces CHAT as an approach for addressing the following research question: **How can a dialectical approach to practice inform about the microfoundations of dynamic capabilities?** Building upon Engeström's (2001, 1987) activity theory and particularly the third-generation activity theory (Engeström, 2009, 2001), I propose an activity theory framework for effective strategic entrepreneurship (SE) that contributes to explain the microfoundations of DC. To this purpose, I draw upon the distinction between exploration and exploitation (March, 1991), and concept of SE developed in the works of Ireland and colleagues (e.g., Ireland and Webb, 2009, 2007; Ireland, Hitt and Sirmon, 2003; Hitt, Ireland, Camp and Sexton, 2001, 2002; Ireland, Hitt, Camp and Sexton, 2001). March (1991) describes exploration as including "things captured by terms such as search, variation, risk taking, experimentation, play, flexibility, discovery, innovation" (p. 71), while exploitation encompasses "such things as refinement, choice, production, efficiency, selection, implementation, execution" (p. 71). Whereas the former is about exploring for future opportunities and the latter about exploiting current competitive advantages, SE is the way through which firms do both activities at the same time (Ireland and Webb, 2007). Or, as described by Hitt and colleagues (2001), SE "is the integration of entrepreneurial (i.e., opportunity-seeking behavior) and strategic (i.e., advantage-seeking) perspectives in developing and taking actions designed to create wealth" (p. 481).

In the present activity-based approach, I define SE as the integration of two interacting and interdependent activity systems: exploitation and exploration. Each activity system is comprised of three main interdependent constituents, the relevant subject(s), the related community and the respective object of activity; being mediated by specific and distinguishing artifacts (technology/tools), rules (social norms and shared values) and division of labor (organization and role structures); and delivering distinctive outcomes. In what follows I describe in detail each activity system and elaborate on how their effective integration lead to the emergence and development of

DC. I then provide a discussion on the main contributions of the proposed CHAT-based framework for DC scholarship, its methodological implications and a critical assessment.

#### **4.4.1 The exploration activity system**

Ireland and Webb (2007) equates opportunity-seeking behavior (i.e., entrepreneurship) to exploration. In CHAT terms, opportunity seeking is the object of the exploration activity system. Exploration activity encompass a coherent corpus of various individual and group entrepreneurial actions directed toward a common purpose which is opportunity seeking or, in broader terms, entrepreneurship. Ireland et al. (2001) describe entrepreneurship as “a context-dependent social process through which individuals and teams create wealth by bringing together unique packages of resources to exploit marketplace opportunities” (p. 51). Entrepreneurship is about creation of products, firms and markets (Venkataraman and Sarasvathy, 2001). It requires not only recognition, discovery or creation of entrepreneurial opportunities, but also their evaluation and exploitation for wealth creation (Shane and Venkataraman, 2000). In turn, entrepreneurial actions refer to human behaviors that seek to identify and further exploit novel opportunities that competing firms have not yet or fully recognized or exploited (Ireland et al., 2001). Venkataraman and Sarasvathy (2001) identify three types of entrepreneurial actions in relation to opportunities: opportunity recognition, opportunity discovery and opportunity creation, depending on whether both sides of demand and supply exist, only one side exists or neither supply nor demand exist, respectively. Entrepreneurial actions can be practiced in all types of organizations, be they large and long-established firms, relatively established companies or new ventures (Ireland et al., 2001). Entrepreneurial actions may also be strategic in the sense that they may confer competitive advantages in the future (Ireland et al., 2001). However, within the present exploration activity system, I use the term entrepreneurial actions to refer to human actions of figuring out, creating and further exploiting new opportunities offered by the environment, with a clear focus on creating newness today (Ireland and Webb, 2007).

The subject of the exploration activity system is the entrepreneurial manager, often a company’s founders, CEOs, top managers or leadership groups, who head and/or have legitimacy over entrepreneurial actions. Depending on the organizational context, the subject may be an individual (e.g., the founder or CEO) or a group of individuals (e.g., top management team). Entrepreneurial managers are practitioners of entrepreneurship, as they are actively engaged in actions of search, discovery, experimentation, risk taking and exploitation of new opportunities. Typically, they have an entrepreneurial mind and exhibit an entrepreneurial attitude.

Within the exploration activity system, entrepreneurial managers do not work in isolation. They develop entrepreneurial actions in constant interaction with other key actors that form the

broader entrepreneurial community. The entrepreneurial community comprises internal actors to an organization but extends beyond its internal boundaries to encompass certain key actors and stakeholders from external networks. As Hitt et al. (2002) highlight, external “networks are sources of entrepreneurial opportunities” (p. 9). In concrete, key internal members are those within the firm who support the decisions of entrepreneurial managers by engaging in practical actions so that exploration activity is successfully built and accomplished. It may include the middle management and other employees of lower level echelons. Key external members are other relevant actors and stakeholders outside the organization with whom entrepreneurial managers also network and interact on an ongoing basis. This group includes investors as well as customers, suppliers and even competitors that may become allies and partners. In the case of established companies, it may include new ventures (e.g., start-ups and scale-ups), and vice-versa. Although all these people may not necessarily have an entrepreneurial attitude or mindset, they contribute to a firm’s exploratory activity with their actions and interactions. Hence, the construction and accomplishment of exploration activity requires continuous interaction between entrepreneurial managers and the entrepreneurial community, as well as persistent attention to and interface with the external environment where novel opportunities exist or may come into existence.

The rules that mediate the complex relationship between entrepreneurial managers and the entrepreneurial community are governed by a supportive culture of change and innovation. A culture that instils entrepreneurial spirit and endorses experimentation and risk-taking endeavours on an ongoing basis, while accepting failure and recognizing success. Ireland and Webb (2007) highlight the importance of promoting experimentation, willingness to face uncertainty/risk, and motivation to overlook failure for successful exploration. Such a culture makes employees feel free to share and discuss ideas, promotes creativity and creative thinking, fosters knowledge creation and sharing, and sponsors networking opportunities. Practices that enable a culture of change and innovation while promoting collaboration and facilitating interactions between the participants in the exploratory activity system include brainstorming, networking, partnering and other contemporary innovating practices. Brainstorming is a practical social process through which ideation and creative-problem solving are generated. Networking practices are a way of connecting different internal and/or external actors that can provide access to internal/external resources, knowledge and information (Russo-Spena and Mele, 2016). Internal networking practices include, for example, team building activities, workshops and away days. Networking with external actors often involve attending industry fairs and/or start-ups/scale-ups pitching events. Traditional partnering mechanisms to have access to external resources and knowledge are mergers and acquisitions, strategic alliances, corporate venturing, joint ventures, licensing agreements, joint R&D (Ireland and Webb, 2007; Ireland et al., 2001). Other contemporary innovating practices encompass, for instance, open

innovation, wisdom of crowds and cocreation. Open innovation “suggests that companies should look outside organizational boundaries for ideas and intellectual property (IP) and license their underutilized IP to other organizations” (Russo-Spena, Mele and Nuutinen, 2017, p. vi). Wisdom of crowds “advocates the value of insights and ideas from “groups,” both inside and outside the organization” (Russo-Spena et al., 2017, p. vi). Cocreation “is based on the idea of working collaboratively with many actors in the innovation. Business or service ecosystem to jointly create innovation” (Russo-Spena et al., 2017, p. vi).

The relationship between the entrepreneurial community and the contributions of its participants to the exploration activity is mediated by flexible roles and agile organizational structures that may facilitate opportunity seeking. Ireland and Webb (2007) argue that “Organizational structures characterized by decentralized authority, semi-standardized procedures, and semi-formalized processes support exploration” (p. 54). Decentralized authority matters to exploration activity as it “provides autonomy to individuals and allows the firm to effectively pursue a large number of opportunities” (Ireland and Webb, 2007, p. 55). “In contrast, semi-standardization and semi-formalization contribute to the firm’s efforts to efficiently use resources when exploring” (Ireland and Webb, 2007, p. 54). Internal human resources practices that characterize such organizational structures include, for instance, employee rotation, job design, training in communication skills, teamwork, mentoring and knowledge-sharing-focused meetings that may contribute to explore the employees’ abilities, potential or motivation, and boost their risk-taking and knowledge sharing skills. Any mechanisms or innovating practices that establish partnerships or collaborations with external actors will require not only a specification of which actors develop which actions in the collective exploration activity, but also an adequate allocation of any intellectual property rights that may arise from potential upcoming innovations.

Within the exploration activity system, certain entrepreneurial tools and technologies are used as mediators of the participants’ entrepreneurial actions and interactions with their contexts. Examples of more contemporary mediating tools often used by entrepreneurial and innovative organizations include design-thinking, agile methodology, communication platforms such as Slack, business/corporate accelerators, hackathons, online communities and crowdsourcing platforms. Design-thinking is used as an iterative and practical process that facilitate ideation, testing and prototyping. Agile methodology is a customer-centric practice used in software development projects that promotes iterative development, team collaboration and welcomed change aimed at delivering higher quality products. Slack is a business communication platform known for allowing faster collaboration within teams and closer conversations with partners. Business accelerators are programs that offer mentorship, networking, education and funds intended to accelerate the development of start-ups. When provided by larger corporations they are called corporate



accelerators. Hackathons are events typically hosted by larger tech corporations, where computer programmers, software developers, designers, etc. work together, usually for a day long, to discuss ideas and create something new that solves an existing problem. Online communities offer their members the possibility to interact with each other, while may also work as a tool for co-creation with customers. Crowdsourcing platforms help organizations find knowledge, data, goods, services or funds from a large number of people, and may also be used to divide tasks.

Ireland et al. (2002) claim that the outcome of entrepreneurship and associated entrepreneurial actions is growth and innovation. In particular, being a process of discovery and exploitation of novel entrepreneurial opportunities, exploration is usually associated with more radical or disruptive innovations (Ireland et al., 2003). Hence, I define radical innovations as the outcome of the artifact-mediated and socially-distributed exploration activity system.

#### **4.4.2 The exploitation activity system**

Ireland and Webb (2007) equates advantage-seeking behavior (i.e., strategic management) to exploitation. In CHAT terms, advantage seeking is the object of the exploitation activity system. Exploitation activity consist of a coherent corpus of various individual and group strategic actions directed toward a common purpose which is advantage seeking or, in broader terms, strategic management. Strategic management is concerned about how firms develop and sustain competitive advantages over time. Hence, strategic actions may be defined as those actions “taken to select and implement the firm’s strategy” (Ireland et al., 2001, p. 50) so that it remains competitive in the market. Strategic actions may also be entrepreneurial whether they exploit “opportunities that will help create competitive advantages for the firm in the future” (Hitt et al., 2002, p. 2). However, within the present exploitation activity system, I use the term strategic actions to refer to those actions aimed at developing and exploiting today’s competitive advantages (Hitt et al., 2002; Ireland and Webb, 2007).

The subject of the exploitation activity system is the strategic manager, often an individual or group of individuals who assume responsibilities at executive or top management level and play a major role in strategic management. This view is consistent with Jarzabkowski’s (2005) activity theory framework for strategy-as-practice where top managers are placed “at the centre of the complex interactions involved in the construction of strategy” (p. 44) and referred to as “an aggregate group, the top team” (p. 44). Moreover, “A top management team has the final responsibility for selecting the firm’s strategies and ensuring that they are implemented in ways that will create wealth and thus can be a source of competitive advantage” (Ireland et al., 2001, p. 58). Hence, strategic

managers are practitioners of strategic management, as they are actively engaged in practical actions of developing and exploiting current competitive advantages.

Strategic managers engage in strategic actions in collaboration and partnership with members of a community that extends beyond the internal organizational boundaries. “Although firms can take advantage of internal resources and knowledge, they may also seek external partnerships when engaged in exploitation” (Ireland and Webb, 2007, p. 56). As Jarzabkowski (2005) notes, “Strategy as a practice arises from the interactions between people, lots of people – top managers, middle managers, employees, consultants, accountants, investors, regulators, consumers” (p. 8). I refer to the community with whom strategic managers interact as the strategic community, to emphasize the ‘strategic’ role that its members may play in the construction and accomplishment of the exploitation activity. It is comprised of internal actors such as middle managers and employees, as well as external actors and stakeholders such as consultants, investors, regulators, consumers, suppliers and even competitors. Ireland and Webb (2007) claim that, in exploitation, firms seek external partnerships (through mergers and acquisitions or strategic alliances) with the goal of leveraging existing competences and competitive advantages. Although members of the strategic community might not all be strategy practitioners, through their actions and interactions they may contribute to the success or failure of a firm’s exploitation activity. For example, imagine strategic managers who have concluded that internationalization activities are essential for the firm to exploit its current competitive advantages worldwide. Whether investors do not approve the required funds, the exploitation activity would be compromised. A similar situation occurs if strategic managers consider absolutely critical for sustaining the firm’s competitive advantages that it engages in a merger with another corporation, but regulators do not approve such operation. Whether the strategic managers were right in their strategic choices and the decisions of the investors and regulators had been exactly the opposite, the latter would have contributed to the success of the exploitation activity.

As Ireland and Webb (2007) expound, exploitation activity has a “need for greater certainty regarding tasks and outcomes, a preference for meeting short-term goals, and a commitment to focus on existing competencies and competitive advantages” (p. 57). Hence, the interactions between strategic managers and members of their strategic community are mediated by rules formed within a culture that privileges certainty over novelty, routines over creativity, focus over experimentation (Ireland and Webb, 2007). Such rules may either facilitate or restrict the interactions between strategic managers and their strategic community.

Ireland and Webb (2007) describe exploitation as characterized by centralized structures and highly-specialized and formalized routines that facilitate focus on established knowledge and existing competitive advantages. On the one hand, centralization allows for quick decisions that

contribute to the success of exploitation, also fostered by fast, simple routines (Ireland and Webb, 2007). On the other hand, formalization of procedures gives individual employees the authority to make timely decisions while carrying out standardized routines with managerial support (Ireland and Webb, 2007). Human resources practices that enable exploitation often encourage employees' efficiency in the short-term and reward employees' incremental innovations (Ireland and Webb, 2007). In respect to external partnerships, standardization and formalization may also be helpful in mediating competing or divergent interests. Hence, the actions and contributions of participants of the strategic community to the collective object of advantage seeking is mediated by organizational structures that privilege centralization, standardization and formalization.

Several strategy tools often mediate the actions and interactions of strategic managers and other participants within the exploitation activity system with their contexts. Examples include business model canvas, PESTEL analysis, Porter's five forces, BCG matrix, SWOT analysis, scenario analysis. As these practical strategy tools are widely known for their capacities to analyse competitive advantages and to implement strategic plans, I will not describe them here in detail.

Finally, exploitation of existing competitive advantages will often lead to incremental innovations (Ireland and Webb, 2007; Ireland et al., 2003). The latter "represent minor extensions to established bases of knowledge" (Ireland and Webb, 2007, p. 55). "Often oriented to developing new processes rather than new goods or services, incremental innovations are important to help the firm derive maximum value from the firm's current capabilities" (Ireland et al., 2003, p. 982). Hence, I define incremental innovations as the outcome of the exploitation activity system.

#### **4.4.3 Effective strategic entrepreneurship and dynamic capabilities**

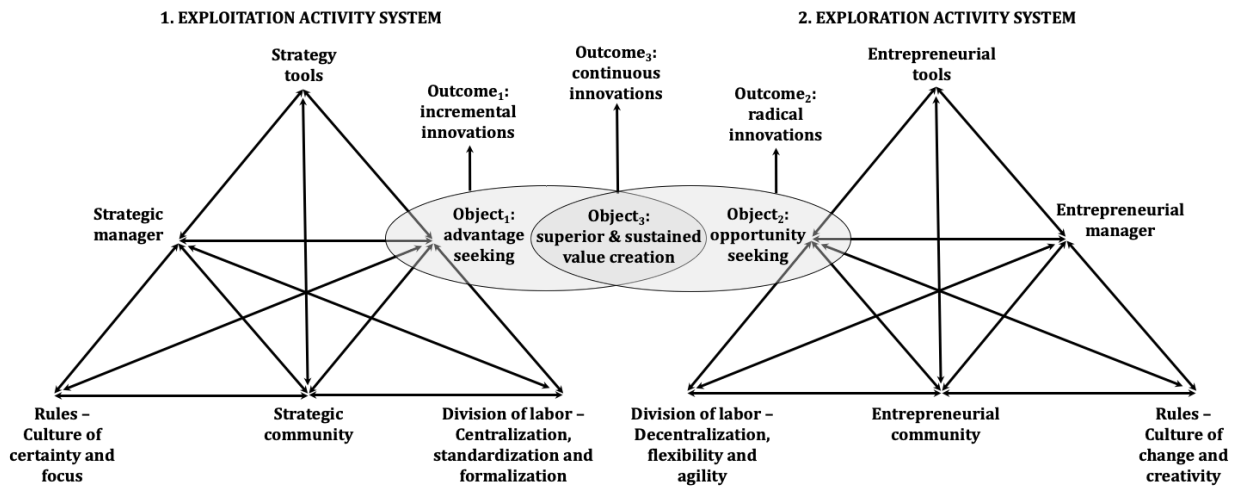
The tension between exploration and exploitation has been first acknowledged by March (1991). Ireland and Webb (2007) describe it as the "tension between doing what is necessary to *exploit* today's competitive advantages and *exploring* today for innovations that can be the foundation for the firm's future competitive advantages" (p. 50). March (1991) claim that "Both exploration and exploitation are essential for organizations, but they compete for scarce resources. As a result, organizations make explicit and implicit choices between the two" (p. 71).

While the focus of exploitation is competitive advantage, that of exploration is creation and newness (Hitt et al., 2001, 2002; Ireland et al., 2001). At the heart of both strategic management and entrepreneurship is wealth creation (Ireland et al., 2001; Hitt et al., 2001), which is about creating sustainable income (Ireland et al., 2001). Strategic entrepreneurship (SE) is the integration of both exploration and exploitation in the construction and undertaking of actions intended to create wealth (Hitt et al., 2001). It "is applicable to smaller newer firms and older established companies as well"

(Hitt et al., 2002, p. 13). Ireland and Webb (2007) note that “SE is an approach that can serve firms well in their efforts to rely on competitive advantages as the path to superior performance, both today and in the future” (p. 58). Although both exploration and exploitation are critical for firms to outperform competitors, they “reach SE’s potential only by balancing their actions between exploration and exploitation” (Ireland and Webb, 2007, p. 58).

Third generation activity theory is “built on the idea of multiple interacting activity systems focused on a partially shared object” (Engeström, 2009, p. 6). In the third-generation activity theory approach here presented, I describe SE as the integration of two interacting and interdependent activity systems: exploration and exploitation. Exploration and exploitation are described as two distinctive artifact-mediated and object-oriented activity systems, which live in continuous tension. The first tension is originated in the competition for scarce resources (March, 1991). The second tension is related to competition between future radical innovations and today’s competitive advantages (Ireland and Webb, 2009). Radical innovations may compete with current products or services that represent competitive advantages. “The more radical the innovations identified from exploration, the more serious the disruption to ongoing activities taking place in the firm to exploit current competitive advantages” (Ireland and Webb, 2009, p. 473). In Engeström’s (1987) terminology, these tensions correspond to ‘quaternary contradictions’ that originate in the interactions between interconnected activity systems when the object of an activity system expands. At the same time, the tensions between exploration and exploitation activity systems are learning opportunities for effective SE to happen. Firms have to “learn how to combine the best of strategic management and entrepreneurship as the source of today’s and tomorrow’s competitive advantages” (Ireland and Webb, 2007, p. 59), which potentially leads to superior firm performance and continuous innovations (Ireland and Webb, 2007).

Because of the contradictory nature between exploration and exploitation activity systems, effective SE is challenging (Ireland and Webb, 2007; Smith and Tushman, 2005). Yet, in the words of March (1991), “maintaining an appropriate balance between exploration and exploitation is a primary factor in system survival and prosperity” (p. 71). In CHAT terms, I describe effective SE as taking place through individual and collective practical search actions for successfully integrating both exploration and exploitation activity systems, whereas *superior and sustained value creation* emerges as a partially shared object, and *continuous innovations* are generated as an outcome. Figure 4.8 portrays the proposed activity theory framework for effective SE.



**Figure 4.8.** An activity theory framework for effective strategic entrepreneurship (Elaborated by the author)

Moreover, effective SE is a dynamic and ongoing process in the search for an appropriate balance between exploration and exploitation. As individuals within the exploration activity system seek for novel opportunities offered by the environment (explore for future opportunities), some of these will be exploited and might lead to radical innovations (e.g., new organizational forms, new business models, new products/services or new processes). As radical innovations arise as an output of the exploration activity system, they will serve as inputs to the exploitation activity (new advantages to be exploited). This interaction creates novel contradictions within and between the exploration and exploitation activity systems, which are the driving forces for them to evolve (Engeström, 1999b), making it necessary to continuously learn how to best combine exploration and exploitation. As such, an appropriate balance between both activities will not be something fixed or stable over time. The whole learning cycle may be described as follows.

Changes in the external environment (e.g., exogenous shocks such as Covid19, new technologies such as artificial intelligence (AI), blockchain or quantum computing, changes in the political landscape of international trade, climate changes, etc.) often motivates (or even forces) organizations to seek novel opportunities. Although such changes are not indispensable for opportunity seeking behaviour to exist, they often contribute to stimulate entrepreneurial action. This is evident, for instance, in the current Covid-19 pandemic that has accelerated the digital transformation of diversified businesses across the world. As novel opportunities offered by the environment are exploited, secondary contradictions between different elements of the exploration activity system will be expected to happen. For example, novel opportunities may interfere with existing partnerships or investment agreements established for other opportunities, and with the current organizational structure (even being flexible and agile, tensions might not be avoided, only

attenuated). Attempts to solve such secondary contradictions often involve establishing novel partnerships (e.g., with new customers, suppliers or competitors), attracting new investors (interested in funding exploration activities such as research and development), and adjusting the organizational structure accordingly (e.g., through employee rotation, training in new skills, or even hiring new collaborators if necessary). As old and new elements coexist within the exploration activity system, tertiary contradictions are likely to occur. They are enacted by an expanded object (new opportunity) that oppose the current object (old opportunity). As new opportunities are exploited, the exploration activity system is reorganized and reconfigured accordingly. Because entrepreneurial organizations are always seeking for the next opportunity, contradictions within the exploration activity system will never actually have an ending. Instead, they will be continual drivers of potential radical innovations, that will serve as inputs to the exploitation activity system.

When a radical innovation comes out from the exploration activity system (e.g., a new AI-based product or process), it will be exploited as a new competitive advantage. Introducing the radical innovation into the exploitation activity system will most likely generate secondary contradictions within it. For example, it might conflict with the current organizational structure, forcing changes in existing standardized routines and procedures. In addition, strategic managers will have to review the firm's strategic plan and eventually search for different partnerships, get additional funds from shareholders, find out new customers or suppliers. In addition, tertiary contradictions between old and new elements that coexist within the exploitation activity system might also take place. Current managers and other employees might not trust in the potential of the new product or process, making the board to hire new managers and employees in order to resolve this secondary contradiction. At the same time, old and new simple routines and procedures might also coexist. Such tertiary contradictions are enacted by an expanded object (new advantage) that oppose the current object (old advantage). As new advantages are exploited in result from radical innovations, the exploitation activity system will be reorganized and reconfigured accordingly.

Finally, quaternary contradictions are expected to happen, as the expanded objects (either of the exploitation or the exploration activity system) will activate or aggravate the tensions between the two interacting systems (related with competition for scarce resources and the choice between future radical innovations and today's competitive advantages). Each time the objects of activities expand (new opportunities or new advantages), firms will have to learn new ways to best combine the two contradictory activity systems, and the appropriate balance between exploration and exploitation will change accordingly. Effective SE comprise individual and collective practical search actions that can grouped in two types: 1) deciding how an organization's scarce resource will be allocated between exploration and exploitation activities systems; and 2) integrating the components of the two activity systems within the same organization (be it a single enterprise or a group of

enterprises). Concerning the first type of actions, subjects engaged in conflicting object-oriented activities will have to agree and deliberate about which activity will be allocated a firm's scarce resources. Sometimes, decision making about resource allocation may involve approvals from other external actors such as stockholders or investors. Regarding the second type of actions, integrating the several components of the two activity systems requires cooperation between entrepreneurial and strategic managers; choosing, involving, partnering and getting engagement from the right employees and other members of the relevant communities; and appropriately reconciling divergent tools, rules/culture and organizational structures so that both advantage seeking and opportunity seeking are successfully accomplished. Hence, within the proposed activity theory framework, successfully dealing with and managing the tensions between the two activity systems require collective efforts toward a new jointly constructed object. As the subjects of the two activity systems actively engage in the said practical search actions, effective SE takes place as a socially constructed practice. Effective SE is a collective practical job that involves not only top managers, executives and senior teams but also employees and other members of the relevant communities, in the construction of superior and sustained value creation. This practice-based view contrasts with other perspectives that assign exclusively to top management teams and decision makers the main job for managing contradictory strategic agendas (e.g., Smith and Tushman, 2005) or for transitioning between exploration and exploitation (e.g., Ireland and Webb, 2009).

I further argue that firm-level DC originate from such individual and collective practical search actions aimed at effective SE. From an activity-theory perspective, the tensions and contradictions within and between the two interacting activity systems are just starting points, as they represent learning opportunities for effective SE to take place, and for DC to emerge and develop. As such, DC will not emerge and develop if an organization only focuses on exploiting today's advantages. Because the world is constantly changing, sooner or later, today's advantages will vanish and such an organization might have lost the opportunity to adapt to change. Similarly, DC will not emerge and develop if an organization only dedicates to exploring for future opportunities, without ever transforming these into advantages. Adaptation to change also means that the outcomes from past exploration activities (even if these have to be absorbed from third parties) shall be introduced into an organization's exploitation activity system, and exploited as new advantages. In line with this argument, only companies that are able to adapt to change through successfully integrating both exploration and exploitation activity systems (thereby resolving its inner contradictions on a daily basis) will build DC along the way. Ultimately, the microfoundations of DC lie with the tensions and contradictions within and between the two activity systems, as the driving forces for change and continuous innovation. In other words, whether there is a trade-off between exploration and

exploitation activity systems, there is an opportunity for DC to emerge and develop from effective SE as a dynamic, ongoing and socially accomplished practice.

The findings of Salvato's (2009) study on Alessi's new product development (NPD) processes tend to corroborate the idea of DC as developing from individual and collective efforts for effectively integrating both exploring and exploiting activities. Alessi's NPD processes are described as a myriad of daily activities such as experiments, improvisation, formalization and replication that involve both internal and external agents, and which are guided by the mindful intervention of top managers. Experiments and improvisation may be interpreted as exploration activities, whereas the activities of formalization and replication (i.e., encoding) may be understood as exploitation activities. At Alessi, Salvato (2009) observed that "the mindful encoding of ambiguous outcomes from previous experiments ... enhances the adaptiveness of routine driven behavior, which in turn helps sustain high levels of attention and mindfulness" (p. 402). In other words, Salvato (2009) found that gradual improvement of "lower-level" product development practices (i.e., exploiting) allows managers and staff to focus attention on "higher-level" initiatives (i.e., exploring) that are relevant for organizational adaptation in changing environments. He then concluded that "the most valuable outcome of the processes of capabilities development observed at Alessi seems to be the ability to *simultaneously* perform reliable product development processes and mindful exploration of novel strategic opportunities" (p. 402). Hence, it seems that the basis for NPD processes to successfully develop over time tends to lie with daily, micro and ordinary social practices that effectively integrate exploration (i.e., experiments and improvisation) and exploitation (i.e., formalization and replication) activities.

#### **4.4.4 Contributions to dynamic capabilities scholarship**

By explaining DC as practical social accomplishments, the proposed activity theory framework for effective SE expands the recent scholarship that has adopted a practice-based view about the microfoundations of DC (e.g., Argote and Ren, 2012; Salvato and Vassolo, 2018; Nayak et al., 2020). As such, the microfoundations of DC are associated with what individuals collectively *do* (DC as practice), rather than with what they *have* (DC as possession). More specifically, by focusing on strategic and entrepreneurial practices, including their actors, objects, rules and artifacts, the proposed framework contributes to address the need of a strategy-as-practice approach in DC scholarship. In addition, by emphasizing the actions and interactions of not only managers but also of other actors within and around the organization, it challenges the idea of dynamic managerial capabilities as the microfoundations of firm-level DC (e.g., Adner and Helfat, 2003; Helfat and Peteraf, 2015). Finally, it provides insights to some critical questions still open in DC scholarship, namely:



Why and how do a firm's DC become idiosyncratic? Whether and why are DC inimitable? Whether or in which conditions may DC be a source of competitive and sustained advantage?

### **Competitive and sustained advantage**

The activity theory framework for effective SE presented here contributes to explain how DC become idiosyncratic and inimitable, and hence may be a source of competitive and sustained advantage. Because a firm's exploration and exploitation activity systems are socially constructed and culturally and historically situated – each having its own problems and potentials –, the DC that emerge from joint practical actions to effectively integrate the two contradictory and situated activity systems will be unique to each firm and hence difficult to imitate by competitors. Put differently, since effective SE is local and time situated, shaping and being shaped by the two interacting activity systems, it will be hard to find two firms that have built exactly the same DC. Moreover, SE practices are themselves in a perpetual process of evolving, as they are continuously created and modified to take account for the contradictions within and between activity systems, in a dialectic relationship that force them to evolve over time. Consequently, DC as well will be constantly renovating, and hence become more difficult to replicate or to imitate.

What should be emphasized in the proposed activity theory framework is that the source of sustained and competitive advantage lies with socially constructed DC, and not strictly with managerial abilities or actions as advocated in DMC scholarship (e.g., Adner and Helfat, 2003; Beck and Wiersema, 2013; Kor and Mesko, 2013; Helfat and Martin, 2015a; Helfat and Peteraf, 2015). Sustainability of competitive advantage lies in the idiosyncratic and inimitable DC rooted in ongoing and dynamic collective activities toward effective SE, which will generate superior and sustained value creation and lead to continuous innovations.

### **Environmental dynamism and boundary conditions**

Variations in environmental dynamism will require different combinations of exploration and exploitation activities over time, and therefore different patterns of DC might emerge and develop from effective SE toward an appropriate balance between both activities. In high velocity markets an appropriate balance will most probably be more of exploring and less of exploiting, while in moderately dynamic markets the opposite is expected (O'Reilly and Tushman, 2008). Changes in the external environment, such as technological changes or exogenous shocks (e.g., Covid19 pandemic), will most probably push firms to seek new opportunities, and therefore allocating more resources to exploration activities while fostering a culture of change and innovation. In less dynamic times or markets, firms will tend to allocate less resources to exploration, privileging a culture of certainty and routines (Ireland and Webb, 2007). Regardless the more or less dynamism of external

markets, whether an appropriate balance between both activities is reached, DC will be built anyway. In other words, resource reconfiguration in result of effective SE takes place to address both types of environmental dynamism; just the patterns of DC will vary with market dynamism (EM). While TPS's framing of DC has been developed to deal with fast changing environments, the present activity theory framework allows the study of DC in both high-velocity and moderately dynamic markets. Similarly, it applies to both new ventures and established companies. Although the former are typically more focused on exploration and the latter on exploitation, both may engage in effective SE (Hitt et al., 2002) and therefore DC will emerge and develop in either cases. In this light, and following EM's perspective, DC will tend to be "simple" and "experiential" whether an appropriate balance between exploration and exploitation activities is more of exploring, and "detailed" and "analytic" whether it is more of exploiting.

#### **4.4.5 Methodological implications**

In their article, Nicolini and Monteiro (2017) reflect on "what sort of theory is produced by the practice approach" (p. 122). In this light, they emphasize that "Practice-based studies do not investigate practices as abstract entities but rather it "praxeologises" phenomena, turning the study of decision making into the study of decision-making practices or the study of strategy into the study of strategy-making practices" (p. 123). Hence, theory yielded from the practice approach is not intended to explain abstract, transcendental elements, but to be a tool for understanding and representing social and organizational practices, which in turn may "help practitioners to see through conventional ways of doing and saying" (Nicolini and Monteiro, 2017, p. 123). Stern (2003) notes that "most practice theorists are opposed to the very idea of a theory of practice, if one considers a "theory" to be a formal system of hypotheses that generate explanations and predictions" (p. 187). Practice theorists tend to be more open to use the term "theory" in the sense that it "includes such activities as providing models, offering exemplary studies of particular cases, developing conceptual frameworks or categories, or providing a genealogy" (Stern, 2003, p. 187). It is also in this sense that I have drawn upon CHAT to develop a conceptual framework for effective SE practices that ultimately explicates DC as practical social accomplishments.

But what are the implications of the present activity theory framework for strategy researchers who want to investigate DC? First, under third generation activity theory (Engeström, 2001, 2009), researchers should select the exploration and exploitation interconnected and interdependent activity systems as the unit of analysis. While they will have to identify the nodes of each activity system (its object, subjects, community, tools, rules/culture and organizational structures), the focus should be on activity systems' interaction and integration. The main interest

should be on the tensions between the two paradoxical activity systems (equivalent to quaternary contradictions in Engeström's (1987) terminology), how they are activated or aggravated by other levels of contradictions within and between activity systems, how they are collectively resolved, and what are the respective outcomes. In respect to cases' selection, it may encompass either nascent companies or more established ones, since the framework applies to both types.

Second, researchers are encouraged to use ethnography to investigate how strategic and entrepreneurial managers and members of the relevant communities act and interact in order to effectively deal with the ongoing tensions between the exploration and exploitation activity systems. Ethnography studies people in social situations and has a long tradition of application in organizational settings (Yanow, Ybema and van Hulst, 2012). Ethnography is an adequate research method for CHAT applications to workplaces and organizational studies (e.g., Jarzabkowski, 2003; Nardi, 2005; Engeström, Kerosuo and Kajamaa, 2007; Roth, 2007, 2009; Engeström, Rantavuori and Kerosuo, 2013). Ethnographic fieldwork is essential for primary data collection (Whitehead, 2004, 2005) and to get acquainted with contextual meanings (Van Maanen, 1979). It often includes a combination of participant observation, recording or video-taping of interactions among participants, face-to-face interviewing and the analysis of material artifacts. Observation and recording/video-taping are appropriate to explore individual and shared behavioral patterns in real contexts (including the language used, the words said or not said, the rituals and symbols adopted, and the body performance). In particular, a microethnographic approach to the study of nonverbal communication of participants in the activity systems may give insights on how interactions between participants of the activity systems unfold (LeBaron, 2005). Semi-structured interviews focusing on 'how' questions are suitable to induce individuals to share their individual and collective practical experiences, as way to explore the meaning of their behavior. Material artifacts in organizational settings often include documentary and other archival data that might be relevant for the research questions (e.g., annual reports, meeting minutes, internal memos, social media posts, company announcements, etc.). Primary data collected in ethnographic fieldwork can then inform about organizational life and the interplay between actors and context (Yanow, Ybema and van Hulst, 2012), and contribute to reveal effective SE practices as the social underpinnings of firm-level DC. Ethnography may also shed light on potential mediators of effective SE, such as communication, persuasion and storytelling skills (cognitive moderators) or emotions, identity and motivation (affective moderators).

Finally, researchers are invited to design longitudinal studies that capture the cultural and historical situatedness of exploration and exploitation activity systems, which lies at the heart of DC's idiosyncrasies and inimitability. Longitudinal in-depth case studies are compatible with ethnography research methods, that typically require extended observation over time (Yanow et al., 2012).

Moreover, longitudinal studies that encompass a prolonged period of time (e.g., one year) also allow the study of DC in both high velocity and moderately dynamic times, which may contribute to understand how the patterns of DC vary with environmental dynamism.

#### **4.4.6 Critical assessment**

Scholars recognize that adaptation to change requires a balance between exploitation and exploration (March, 1991, 1996, 2006). However, as both activities compete for scarce resources and require different organizational routines, attitudes and mindsets, finding an optimal balance is difficult, if not impossible (March, 1991, 1996, 2006). How a firm can simultaneously explore and exploit, adapting to the pace of change, is the focus of scholarship on organizational ambidexterity (e.g., O'Reilly and Tushman, 2008). As DC are also concerned with change and adaptation, scholars have explored the linkage between ambidexterity and DC, namely by examining the sensing, seizing and reconfiguring capabilities (Teece, 2007) that firms need to have in order to be successful at ambidexterity (O'Reilly and Tushman, 2008). This view assumes that DC are something that firms possess, as if they existed even prior to the exercise of exploration and exploitation. In contrast, the present activity theory framework suggests that the tensions and contradictions within and between the two interacting activity systems are learning opportunities for effective SE to take place, and thus starting points for DC to emerge and develop. In other words, what is being argued here is that it is the successful integration of both exploration and exploitation systems over time that originates DC, not the other way around. Rather than considering that ambidexterity acts as a DC (O'Reilly and Tushman, 2008), the present activity-based framework explains how DC emerge and develop as successful ambidexterity takes place. Hence, the practice-based view adopted is also process oriented. Because of the dynamic nature of the tensions and contradictions within and between the two interacting activity systems, DC will be themselves in a constant state of flux, perpetually changing.

DC scholarship has recognized the importance of learning processes to the creation and renewal of DC (TPS; EM; Zollo and Winter, 2002). From an activity-theory perspective, each time the objects of activities expand (new opportunities or new advantages), firms need to learn novel ways to best combine the two contradictory activity systems, and find a new appropriate balance between exploration and exploitation. The proposed framework, however, does not elaborate sufficiently on how these learning mechanisms occur along effective SE practice, and the knowledge base that it generates as a consequence. Following Easterby-Smith and Prieto's (2008) call for scholars to "adopt a holistic approach to dynamic capabilities, incorporating both the exploration and exploitation of knowledge and competences as underlying dimensions of successful dynamic capabilities" (p. 246),

future theoretical and empirical research could draw upon the proposed activity theory framework to explore the knowledge base and learning processes associated with firms' efforts to best combine the two contradictory activity systems over time.

The proposed activity theory framework for effective SE can also be used to examine the social mechanisms behind absorptive capacity. Absorptive capacity refers to the firm's ability to identify, assimilate and exploit external knowledge and ideas (Cohen and Levinthal, 1990), and has been indicated as a dynamic capability (Zahra and George, 2002). Zahra and George (2002) suggest that absorptive capacity comprises both potential absorptive capacity (acquisition and assimilation) and realized absorptive capacity (transformation and exploitation). The authors further propose that social mechanisms facilitate integration between potential and realized absorptive capacities. However, they do not elaborate sufficiently on how such social mechanisms work. The present activity theory framework for effective SE may help explaining how absorptive capacity emerges and develops from social practices aimed at effectively integrating potential absorptive capacity (i.e., exploration) and realized absorptive capacity (i.e., exploitation).

While a CHAT based approach to DC is not exempt from criticism, it also creates opportunities for future research. One potential criticism is that CHAT is a functionalist approach, as it addresses function (the different elements of the activity systems), interdependence and equilibrium (the dialectical role of contradictions), consensus (the rules and norms that mediate individual actions and interactions), and evolutionary change (the developmental expansion cycles pushed by historically evolving inner contradictions). As a functionalist approach, CHAT is absent about issues of power and power relations. Another potential criticism is that the present activity theoretical framework for effective SE does not consider the role of emotions that, on the one hand, has already been incorporated into activity theory (Roth, 2007, 2009) and, on the other hand, was found relevant to the DC construct (e.g., Zott and Huy, 2019; Salvato and Vassolo, 2018; Hodgkinson and Healey, 2011; Huy, 2005). The good news is that the expansion of the unit of analysis from one activity system to multiple activity systems has opened up new opportunities for the study of power relations and emotional experiences in organizational settings (Engeström, 2009). As such, future research may explore whether and how power-labour contradictions between exploration and exploitation activity systems may impact and shape the constitution of DC. In addition, scholars may draw upon the proposed activity theory framework to examine the role of emotions in individual and collective search efforts for effectively integrating the two activity systems.

## Chapter 5 A critical perspective

*“There can be no possible exercise of power without a certain economy of discourses of truth”*

M. Foucault, 1980, p. 93

Critical management studies provide alternative ways of interrogating, interpreting and making sense of management theory and practice (see Alvesson and Willmott, 1996, 2003, for a review). From a critical theoretical perspective, “management is viewed as a set of practices and discourses embedded within broader asymmetrical power relations, which systematically privilege the interests and viewpoints of some groups while silencing and marginalizing others” (Levy, Alvesson and Willmott, 2003, p. 93). More specifically, critical perspectives on management have questioned and challenged the constitution of a managerial discourse and practice that privilege and legitimate the monopoly of top management over processes of problem-solving and decision making (Alvesson and Willmott, 1996), aiming at “developing a less managerially partisan position” (Alvesson and Willmott, 2003, p. 1). In this light, Michel Foucault’s poststructuralist approach to power and power relations has been a source of great inspiration for critical management studies. McKinlay, Carter and Pezet (2012) describe Foucault as “perhaps the most important authority in critical management studies” (p. 3). Despite the Foucauldian methodology has inspired many scholars to analyse strategy discourse and practice (Hardy and Thomas, 2014; McCabe, 2010; Ezzamel and Willmott, 2010, 2008, 2004; Knights, 1992; Knights and Morgan, 1995, 1991), a key concept of strategic management – dynamic capabilities (DC) – has been neglected within critical strategy scholarship. The present study adopts for the first time a Foucauldian poststructuralist approach to critically study the DC discourse of mainstream academic literature.

This chapter is organized as follows. Firstly, I briefly introduce critical theory and the poststructuralist critical movement that rejects the structuralist ideas of universal truths and objectivity in knowledge. Secondly, I describe the main conceptualizations of power, namely French and Raven (1959)’s five bases of power and Lukes’ (2005/1974) three-dimensional view, to subsequently elaborate on Foucault’s poststructuralist approach, focusing in particular on the relationships between power and subjectivities, power and knowledge, power and discourse, and how they are apparent in Foucault’s concept of governmentality. Thirdly, I review how Foucault’s poststructuralist approach to power and power relations has been used in critical strategy studies, to further conclude that a critical investigation of DC discourse is still missing in scholarship. Fourthly, I develop a poststructuralist Foucauldian analysis of mainstream academic DC discourse

which intends to contribute to fill this gap. In order to explore the power/knowledge relations and the associated subjectivities that are embedded in the managerialism of mainstream academic DC discourse, I draw upon the governmentality framework suggested by Dean (1995, 1999), which builds on Foucault's concept of governmentality (Foucault, 1997a, 1997b, 2000a, 2000b; 2000c). Finally, I conclude with a critical assessment of the present governmentality analysis of DC discourse, indicating its main contributions, limitations and opportunities for future research.

## **5.1 Critical theory and beyond**

Critical theory is a radical philosophical approach concerned with the assessment and critique of contemporary society, with the purpose of uncovering and challenging power structures, and ultimately seeking social change. Burton (2001) describes critical theory as containing three inter-related elements: "demystifying the ideological basis of social relations; a questioning of positivist methodology whether that be in relation to the nature of reality, knowledge and explanation; and the importance of self-reflexivity of the investigator and the linguistic basis of representation" (p. 726). Accordingly, critical theory "rejects scientific, foundational approaches to human nature and instead favours interpretive approaches to human behaviour which need to be contextualised in time and space to avoid the ethnocentrism by which all other cultures are viewed and judged by one's own" (Burton, 2001, p. 726). Hence, critical theory contrasts with 'traditional' theory in that it rejects any form of positivism, questioning taken-for-granted assumptions, the application of universal laws as a way of explicating the world, the commitment to the idea of an objective structure of the world, and the resulting notion of knowledge as a mirror of reality. Instead, critical theory considers knowledge as historically, socially, and culturally specific. Moreover, critical theory does not conform with the positivistic view of the "world as rational and necessary, thus deflating attempts to change it" (Agger, 1991, p. 109), but rather claims that people and social scientists must realize the potential for changing the taken for granted social world (Agger, 1991). In short, a "significant task of critical theory is to simultaneously critique contemporary society while envisioning new possibilities" (Burton, 2001, p. 726).

The genesis of critical theory is often associated with the Frankfurt School of thought, an interdisciplinary group of young intellectuals, including Max Horkheimer, Theodor Adorno, Herbert Marcuse and Erich Fromm, all connected to the Institute for Social Research at the University of Frankfurt, which was founded in 1923 as an attempt to revitalize the European Marxism in the post-World War I (Jay, 1973). By then, Germany was facing a period of economic depression marked by inflation and unemployment, while the socialist revolution had failed to occur in the capitalist societies as predicted by Marx in the mid-nineteenth century. The first and founding generation of

the Frankfurt School critical theorists attempted to rethink Marx's critique of capitalism, reinterpreting Marxism in a way that was relevant to their social-historical period, a period marked by the continued existence of capitalism, and the rise of fascist and state-capitalist systems of totalitarian domination (Garlitz and Kögler, 2015). Therefore, the earlier works of the Frankfurt School theorists were primarily concerned with critiques to the changing nature of the twentieth-century capitalism and the new forms of domination (Steinberg and Kincheloe, 2010).

With the emergence of the Nazism, the Institute for Social Research, whose members were predominantly Jewish scholars, was forced to relocate, first to Geneva, in 1933, and one year later to Columbia University, New York, curiously, the 'capital' of capitalism. After the World War II, the Institute was officially re-established in Frankfurt in 1953, although some key members opted to stay in the United States. Exiled in the US, initially in New York and later in California, the Frankfurt thinkers continued their works on critical interpretations of a wide variety of social, economic, political and aesthetic topics, including fascism, anti-Semitism, and the mass culture industry (Garlitz and Kögler, 2015). Shocked by the American culture, they also developed a critique of American positivistic empirical social science (Steinberg and Kincheloe, 2010). In the 1970s, the second generation of the Institute, beginning with Jürgen Habermas, readdressed the focus of attention from capitalist culture, consciousness and character to a philosophical concern with language, discourse and communication (Langman, 2014). The Frankfurt School had a great impact on the sociological, political, and cultural thought of the twentieth century.

Poststructuralism – which developed in the 1960s and 1970s – shares with the Frankfurt School of thought its aversion to positivism, its critique to domination, and its multidisciplinary focus. Poststructuralism does not constitute a single line of thought, but rather a collection of theories and ideas that were first developed in France, in a period marked by political anxiety resulting in the student and worker protests of May 1968, and an urge for radical change in the political scene, society, culture, and science. Michel Foucault, Jacques Derrida, Gilles Deleuze, Jean-François Lyotard, and the French feminist Julia Kristeva are often referred to as major thinkers of the poststructuralist movement. The poststructuralist radical thought developed as an attempt to break down with structuralism, critiquing its theoretical pretension of identifying universal and ahistorical structures that explain human experience. Structuralism “is fundamentally a way of thinking about the world which is predominantly concerned with the perception and description of structures” (Hawkes, 2003, p. 6). It claims that “the full significance of any entity or experience cannot be perceived unless and until it is integrated into the structure of which it forms a part” (Hawkes, 2003, p. 7). Hence, structuralism implies that structure is always complete, and it is interested in revealing the manifold structural relations among the parts that constitute the whole.



Structuralism was first developed by the Swiss linguist Ferdinand de Saussure in connection with the study of language, and had a revolutionary impact on the field of linguistics (Olssen, 2003; Hawkes, 2003). de Saussure (1959) characterizes language as a system of signs that serve to express or communicate ideas. The linguistic sign unites a sound image (the 'signifier') and a meaning (the concept or idea 'signified'). The relation between the signifier and the signified is arbitrary. The meaning of signs (words) arises from their relations of difference with other signs of the system. For example, the meaning of 'apple' has anything to do with the object itself, but is rather given from its difference from other fruit words that are 'not apple'. Hence, as de Saussure explains, a language is a *system of differences* without positive terms, that is, the whole system of language is based on relations of difference, or binary oppositions like 'mother' and 'father', 'night' and 'day', etc. that give meaning to terms. de Saussure (1959) also distinguishes between *parole* (speech) and *langue* (language). *Parole* is the everyday use of a language by its speakers and writers, and is necessary for the establishment of language; it is an individual act. *Langue* is the set of governing rules and laws that allow people to speak and write in meaningful and intelligible ways; it is a social product. Hence, language, unlike speech, can be studied separately. For de Saussure, the study of language as a system should focus on the current synchronic relations among its individual parts, rather than in diachronic terms, ignoring therefore its history. In short, de Saussure "proposed that a language should be studied as ... a unified 'field', a self-sufficient system, as we actually experience it *now*" (Hawkes, 2003, p. 9).

After the World War II, the idea of language as a functioning system, "a self-contained 'relational' structure whose constituent parts have no significance unless and until they are integrated within its bounds" (Hawkes, 2003, p. 14), was applied in diverse disciplines, including anthropology, sociology, psychology, economy, literature, architecture, among other. In anthropology, Claude Lévi-Strauss viewed cultures as systems analogous to that of language, and studied them in terms of the structural relations among their apparent disparate constituents. He was interested in the search for the universal unconscious structures that underlie any cultural system (e.g., kinship, myth), with the ultimate scientific goal of understanding human thought and action (Harcourt, 2007). Jacques Lacan applied structuralist linguistics to psychoanalysis, proposing that 'the unconscious is structured like a language'. Louis Althusser approached the Marxist philosophy based on structuralism, representing the social formation as a 'complex whole structured in dominance', that contains four levels of practices (economic, political, ideological and theoretical practice) each of which is itself structured. For Althusser, every social formation is 'overdetermined' by the dialectical interactions among its constituent practices.

Common to most structuralisms is the view of any phenomenon as a whole that forms a system which dominates all its constituent units (the whole is more than the sum of the parts); the

belief that every system has a universal structure (often invisible, needing to be uncovered); the interest in structural rules of coexistence rather than causal laws (revealing the multiple structural relations without reference to external causal origins); and the focus upon synchronic analysis with little sense of history (assuming that a system is always complete, ignoring its history) (Assiter, 1984). There are two important implications of structuralist approaches for human sciences. First, it separates concepts and categories from their object world (Olssen, 2003). The human mind and the material world are not accountable for meaning (knowledge) construction. Second, it rejects the idea of a sovereign rational subject or transcendental subject (Olssen, 2003). To the structuralists, human thought and agency are limited by unconscious structures. Hence, finding patterns within structures will help understanding and predicting human behaviour (Harcourt, 2007).

Poststructuralism starts from the structuralist framework – namely its methodological concern about systematic relations among elements rather than an atomistic approach, its idea that the elements form a structure, and its theoretical anti-humanism –, but rejects the structuralist notion of universal and ahistorical structures as well as the idea of binary oppositions (Olssen, 2003; Harcourt, 2007). Poststructuralism contests the structuralist approach that is interested in finding patterns of regularity and closed systems of meanings (Harcourt, 2007). Instead, the poststructuralist approach “assumes that the regularities identified are not the same in all historical periods and in all cultures, but rather are specific to particular times and places” (Olssen, 2003, p. 192). It rejects the ideas of universal truths and objectivity in knowledge. To the poststructuralists, “structures of meanings are not universal, and do not reflect ontological truths about humans or society” (Harcourt, 2007, p. 17). The “central question that poststructuralists pose in their work is precisely how knowledge becomes possible at any particular time under specific historical conditions” (Harcourt, 2007, p. 18). Therefore, poststructuralism holds that knowledge (meaning) is neither fixed nor static, but historically, socially, and culturally specific. In addition, poststructuralists see knowledge as not neutral, but rather associated with power: “Those who have the power to regulate what counts as truth are able to maintain their access to material advantages and power” (Gavey, 1989, p. 462). Poststructuralism focuses specifically “on the social distribution of power associated with the construction of knowledge” (Harcourt, 2007, p. 21).

Language is at the heart of poststructuralist approach to knowledge. Not language understood as “simply words or even a vocabulary and set of grammatical rules but, rather, [as] a meaning-constituting system: that is, any system – strictly verbal or other – through which meaning is constructed and cultural practices organized and by which, accordingly, people represent and understand their world, including who they are and how they relate to other” (Scott, 1988, p. 34). For poststructuralists, all meaning and knowledge is constituted through language and other discursive practices (Gavey, 1989). Poststructuralist analysis focuses on the textual and social processes by

which meaning is acquired, taking account for social and historical contexts. As Scott (1988) explains: “The point is to find ways to analyze specific “texts” – not only books and documents but also utterances of any kind and in any medium, including cultural practices – in terms of specific historical and contextual meanings” (p. 35). Derrida’s strategy of deconstructive reading, for example, explores the interplay between language and the construction of meaning. By a double process of revealing and reversing the binary oppositions inscribed in texts (e.g., male/female, self/other, inside/outside), deconstruction uncovers the interdependence between opposing terms and analyses their meaning relative to a particular history (Scott, 1988). The constitution of meaning through discourse, particularly as it was developed in Foucault’s writings on power, has also influenced the poststructuralist thought. In the following section I will briefly elaborate on Foucault’s poststructuralist approach to power and power relations, and how it relates with discourse. But first, I will briefly introduce other conceptualizations of power.

## 5.2 Power and power relations

In their seminal work about power, social psychologists John French and Bertram Raven (1959) define power in terms of social influence, and social influence in terms psychological change, by which they mean “a change in the belief, attitude, or behavior of a person (the target of influence), which results from the action of another person (an influencing agent)” (Raven, 2008, p. 1). Social power is then defined as “the *potential* for such influence, the ability of the agent or power figure to bring about such change, using resources available to him or her” (Raven, 2008, p. 1). These resources are linked to the relationship between the influencing agent and the target of influence, and are described by French and Raven (1959) as the *bases of power*. Originally, French and Raven (1959) identified five bases of power: reward, coercive, legitimate, expert, and referent, to which Raven (1965) later added a sixth, different one: informational.

*Reward power* arises from the ability of the agent to induce change over the target by offering him/her positive incentives (e.g., a bonus, a promotion, other benefits). *Coercive power* stems from the ability of the agent to impose some sort of punishment over the agent (e.g., firing a worker, other sanctions), if s/he fails to conform with the influence attempt. It works in similar way as reward power, but instead of offering positive incentives, coercive power uses threats and fear as way of influencing the target to deliver a result. As Raven (2008) explains, both reward and coercive power are “*socially dependent*, since the target, while complying, relates that compliance to the actions of the agent (“I did it because s/he offered me a reward if I complied” or “... threatened punishment if I did not comply.”) (p. 2). At the same time, “their effectiveness requires surveillance by the influencing agent: If reward or coercion are the only bases of power operative, targets will comply only if they

believe that the agent will be able to determine whether compliance has occurred” (Raven, 2008, p. 2). *Legitimate power* is based on the target’s perception that the agent has a legitimate right to influence his/her behaviour, while accepting this influence as if it were his/her obligation. As Raven (2008) puts it: “After all s/he is my supervisor and I should do what s/he requests of me” (p. 3). One can find indications of legitimate power in the target’s use of expressions such as “should”, “obliged”, “ought to”, “required to”, “has a right to” (Raven, 2008; French and Raven, 1959). *Expert power* stems from the target’s perception that the agent has some distinctive knowledge and expertise, which makes him/her trust that accepting the agent’s influence attempt is the best option in that situation. As exemplified in Raven (2008): “My supervisor has had a lot of experience with this sort of thing, and so s/he is probably right, even though I don’t really understand the reason” (p. 3). *Referent power* stems from an identification of the target with the agent, an attraction of the former in relation to the identity of the latter, or a desire to become associated with it. This is illustrated by Raven (2008) as follows: “I really admire my supervisor and wish to be like him/her. Doing things the way s/he believes they should be done gives me some special satisfaction” (p. 3). Legitimate, expert and referent power do not require surveillance (Raven, 2008). Finally, *informational power* is based on the potential of the agent to provide relevant information, reasons and explanations as a way of influencing the target’s behaviour. Unlike expert power, the target needs to understand the reasons why s/he should accept and change his/her behaviour. For example, “The supervisor carefully explains to the subordinate how the job should be done differently, with persuasive reasons why that would be a better and more effective procedure” (Raven, 2008, p. 2). Contrarily to the other five bases of power, informational power leads to socially independent change, as the changed behaviour is initiated through information rather than a specific agent of change (Raven, 1965, 2008).

In the concept of power, as prescribed by French and Raven (1959), power is viewed as a property of specific individuals (the agent) while others (the target) don’t have it. By possessing that ability or resources, the agent is able to exercise influence over the target’s behaviour, changing it. This is therefore an entitative conception of power. In 1974, political and social theorist, Steven Lukes published a book, *Power: A Radical View*, in which he proposes a radical view of power which contrasts with an entitative one. Lukes’ proposal emerged out of an ongoing debate within American political science during the mid 20<sup>th</sup> century, offering an alternative contribution to the question of “how to think about power theoretically and how to study it empirically” (Lukes, 2005/1974, p. 1). Focusing on power as *domination* (that is, power of some *over* another or others), Lukes (2005/1974) asks “how do the powerful secure the compliance of those they dominate and, more specifically, how do they secure their willing compliance?” (p. 12). Lukes (2005/1974) describes three dimensions (or faces) of power, that can be employed to examine power relations. The first, one-dimensional, view – mostly influenced by the works of Dahl, Polsby and Wolfinger – focuses on overt decision-making

behaviour made in the political arena, in the presence of observable conflict of interests. Decision-making power is thus a visible form of power. It concerns ‘concrete decisions’ made by *A* over issues that are against the interests of *B*. As Dahl (1957) puts it, “*A* has power over *B* to the extent that he can get *B* to do something that *B* would not otherwise do” (pp. 202-203). The second face of power involves covert ‘nondecision making’, which is fundamentally about control over the political agenda (Lukes, 2005/1974). The two-dimensional view – theorized by Bachrach and Baratz (1962, 1963) – admits that power is reflected in ‘concrete decisions’, but asserts that it is also exerted through the suppression of potential issues from the political agenda in order to avoid the manifestation of interests by *B* conflicting to those of *A*. It is about preventing *B* from doing what he wants to do (Bachrach and Baratz, 1962). ‘Nondecisions’ that consciously intend to impede or suppress conflicts consolidate the power of the dominant group and aid in prolonging the *status quo* of power relations. Since nondecision-making power prevents potential issues from being actual, it is sometimes referred to as a hidden form of power (Gaventa, 2006). Like French and Raven’s (1959) entitative conception of power, both first and second dimensions refer to power as something that is possessed by the powerful – those who have the authority either to make the decisions or to control the agenda –, and imposed over the powerless – those who are affected by the decisions or ‘nondecisions’ made by the former.

Lukes (2005/1974) offers three criticisms of the two-dimensional view, and suggests a third, radical, face of power. The first criticism is the commitment of the two-dimensional view to ‘actual behaviour’, since it frames ‘nondecisions’ as individuals’ deliberate and conscious acts. However, for Lukes (2005/1974), keeping certain issues off the agenda can also be the result of social forces and institutional practices, often manifested through individuals’ inaction. The second criticism is that the two-dimensional view contends that power is associated with actual, observable conflict, whereas Lukes (2005/1974) suggests that power can also take place through the “influencing, shaping or determining” (p. 27) of people’s beliefs, preferences and desires. In the author’s words, “is it not the supreme exercise of power to get another or others to have the desires you want them to have – that is, to secure their compliance by controlling their thoughts and desires?” (p. 27). According to Lukes (2005/1974), actual conflict is not a necessary condition for power to show up, arguing that “the most effective and insidious use of power is to prevent such conflict from arising in the first place” (p. 27). The third criticism of the two-dimensional view of power is its claim that “nondecision-making power only exists where there are grievances which are denied entry into the political process in the form of issues” (Lukes, 2005/1974, p. 28). For Lukes (2005/1974), however, and closely linked to the second argument, power can also be exercised by preventing people from realizing their own grievances, by having their perceptions and preferences so influenced that “they accept their role in the existing order of things, either because they can see or

imagine no alternative to it, or because they see it as natural and unchangeable, or because they value it as divinely ordained and beneficial” (p. 28). According to Lukes (2005/1974), although this may look like consensus, it actually consists in a latent conflict, which is “a contradiction between the interests of those exercising power and the *real interests* of those they exclude” (p. 28). In this form of power, *A* manipulates the desires and wants of *B*, so that *B* acts contrary to his *real interests*. The conflict is latent (it may never really happen) because *B* “may not express or even be conscious of their interests” (Lukes, 2005/1974, p. 28).

### **Power and subjectivity**

By explaining power not only in terms of actions and inactions but also in terms of unconscious mechanisms that shape desires and beliefs, Lukes’ (2005/1974) radical view (the third face) accounts for ‘the most effective and insidious’, yet the least visible, form of power. This is also the focus of Michel Foucault’s writings on power. However, Foucault takes this approach to an ‘ultra-radical’ level, by considering that through the shaping of individuals’ thoughts and actions, power also constitutes them as subjects. The individual, he believes, “is ... one of [power’s] prime effects” (Foucault, 1980, p. 98). In *Discipline and Punish*, Foucault (1979) portrays the human subjects as effects of disciplinary power. Discipline is described as a set of strategies and techniques applied in the context of social and economic institutions such as the prison, the hospital, the school and the factory, that permeates the individual’s thoughts and behaviours, shaping their selves. Coupled with discipline, the Panopticon is designed to observe and monitor the individuals’ behaviour, inducing in the individual “a state of conscious and permanent visibility that assures the automatic functioning of power” (Foucault, 1979, p. 201). It works “as a kind of laboratory of power. Thanks to its mechanisms of observation, it gains in efficiency and in the ability to penetrate into men’s behaviour” (Foucault, 1979, p. 204). This process of subjectification has been referred to as the ‘fourth face of power’ (Digeser, 1992). Foucault characterises it as follows:

This form of power applies itself to immediate everyday life which categorizes the individual, marks him by his own individuality, attaches him to his own identity, imposes a law of truth on him which he must recognize and which others have to recognize in him. It is a form of power which makes individuals subjects. There are two meanings of the word “subject”: subject to someone else by control and dependence; and tied to his own identity by a conscience or self-knowledge. Both meanings suggest a form of power which subjugates and makes subject to. (Foucault, 1982, p. 781)

The fourth face of power contrasts with the other three in that it does not take the *A*’s and *B*’s as given (Digeser, 1992), but rather considers them as being effects of power. As Diegeser (1992) describes, the fourth face of power “postulates that subjectivity or individuality is not biologically given.

Subjects are understood as social constructions, whose formation can be historically described. Foucault's use of the term *power* is part of his description of this formation" (p. 980). The Foucauldian notion of power is also broader than the three-dimensional view, as it concerns with the mechanisms of power in everyday social practices, and not limited to politics (Lukes, 2005/1974). In Foucault's view, "Power is everywhere" (Foucault, 1978, p. 93); it is ubiquitous, affecting every kind of relationship, and no one can escape power. It pervades every aspect of social life.

Foucault denies the conception of power as a possession or commodity. He wrote: "Power is not something that is acquired, seized, or shared, something that one holds on to or allows to slip away" (Foucault, 1978, p. 94). "It is never localised here or there, never in anybody's hands, never appropriated as a commodity or piece of wealth" (Foucault, 1980, p. 98). It "is neither given, nor exchanged, nor recovered, but rather exercised, and ... it only exists in action" (Foucault, 1980, p. 89). Moreover, power for Foucault "is employed and exercised through a net-like organisation. And ... individuals ... are always in the position of simultaneously undergoing and exercising this power" (Foucault, 1980, p. 98). Foucault's notion of power is thus impersonal (it is not anyone's power) and relational (it is a system, a network of relations embracing the whole society). Accordingly, power is never a property of particular individuals or groups. It is never a capacity or authority of certain agents that is exercised over other agents, as it happens in former conceptions of power (e.g., French and Raven (1959) or Lukes' (2005/1974) two-dimensional view). It is rather a set of multiple relations distributed across society, through which individuals are constituted subjects while at the same time they are "vehicles of power, not its points of application" (Foucault, 1980, p. 98). Conceptualized as a system of relations, power "must be analysed as something which circulates" (Foucault, 1980, p. 98). Foucauldian power, in short, is a process, not a state.

### **Power and knowledge**

For Foucault, power should not be regarded as a form of repression or oppression (a negative force, that is present in the Marxist view), but rather understood as productive (a positive concept). In *Discipline and Punish*, Foucault (1979) wrote:

We must cease once and for all to describe the effects of power in negative terms: it 'excludes', it 'represses', it 'censors', it 'abstracts', it 'masks', it 'conceals'. In fact, power produces reality; it produces domains of objects and rituals of truth. The individual and the knowledge that may be gained of him belong to this production. (p. 194)

As Foucault (1980) argues, "If power were never anything but repressive, if it never did anything but to say no, do you really think one would be brought to obey it?" (p. 119). By contrary, power in the positive sense "traverses and produces things, it induces pleasure, forms knowledge, produces

discourse” (Foucault, 1980, p. 119). In particular, as aforesaid, power “produces ‘subjects’, forging their character and ‘normalizing them,’ rendering them capable of and willing to adhere to norms of sanity, health, sexuality and other forms of propriety” (Lukes, 2005/1974, p. 91). Moreover, power produces knowledge: “the exercise of power itself creates and causes to emerge new objects of knowledge and accumulates new bodies of information” (Foucault, 1980, p. 51). However, the relationship is dialectical, as the knowledge that power creates also reinforces the exercise of such power. In *Discipline and Punish*, Foucault (1979) shows how a corpus of knowledge about individuals (e.g., prisoners, pupils, patients) is formed out of the exercise of disciplinary power (through the use of a collection of different mechanisms and techniques, such as observation and examination), and how that corpus of knowledge extends and reinforces the effects of such power.

The exercise of power perpetually creates knowledge and, conversely, knowledge constantly induces effects of power ... Knowledge and power are integrated with one another, and there is no point in dreaming of a time when knowledge will cease to depend on power ... It is not possible for power to be exercised without knowledge, it is impossible for knowledge not to engender power. (Foucault, 1980, p. 52)

Power and knowledge, therefore, live in a co-producing relationship (Foucault, 1978, 1979, 1980). One does not exist without the other. On the one hand, knowledge is not neutral – it is integral to the exercise of power. On the other hand, power is prolific – it produces knowledge. Hence the expression ‘power/knowledge’, to indicate the inseparability of the relationship.

### **Power and discourse**

Foucault characterizes power as circulating through discourse. “[I]n any society, there are manifold relations of power which permeate, characterise and constitute the social body, and these relations of power cannot themselves be established, consolidated nor implemented without the production, accumulation, circulation and functioning of a discourse” (Foucault, 1980, p. 93). In *Archaeology of Knowledge*, Foucault (1972/1969) defines discourses as “practices that systematically form the object of which they speak” (p. 49). This definition encompasses two Foucauldian ideas. First, discourses are embedded in collections of material practices, and cannot be reduced to linguistic statements. Second, discourses have power effects, as they form what is assumed as knowledge and truth. As Knights and Morgan (1991) note, a “discourse is not then simply a ‘way of seeing’; it is always embedded in social practices which reproduce that way of seeing as the ‘truth’ of the discourse” (p. 253). This is what renders power and knowledge inseparable. “[I]t is in discourse that power and knowledge are joined together” (Foucault, 1978, p. 100). Knowledge and truth do not exist off the circulation of power through discourse.



There can be no possible exercise of power without a certain economy of discourses of truth which operates through and on the basis of this association. We are subjected to the production of truth through power and we cannot exercise power except through the production of truth. (Foucault, 1980, p. 93)

By constructing the objects of our knowledge and reproducing that 'truth' through social and material practices, discourses influence our way of reasoning and acting. They "condition our ways of relating to, and acting upon, particular phenomena" (Knights and Morgan, 1991, p. 253). As Hardy and Thomas (2014) highlight "discourses are saturated with power relations that constrain and enable what individuals can think, say, and do" (p. 324). As such, by circulating a certain version of 'truth', discourses work as power/knowledge devices or mechanisms which provide "the basis on which subjectivity itself is constructed" (Knights and Morgan, 1991, p. 254). From a Foucauldian perspective, however, individuals can always resist the power effects of discourses. In *History of Sexuality*, Foucault (1978) asserted: "where there is power there is resistance" (p. 95). This conception of power presupposes the existence of someone who resists it, otherwise it would be a relation of domination and subjugation, like master-slave or oppressor-victim; and not a power relation. There "are no relations of power without resistances; the latter are all the more real and effective because they are formed right at the point where relations of power are exercised" (Foucault, 1980, p. 142). Hence, for a power relation to exist, resistance is a necessary condition. As such, while discourse is a way of constituting particular meanings (a certain version of 'truth'), it is always possible for individuals to find alternative meanings (other versions of 'truth') or draw on alternative discourses as a form of resistance (Hardy and Thomas, 2014).

### **Government and governmentality**

Foucault's concepts of power, knowledge and subjectivity are perhaps most apparent in his later work on what he called 'governmental rationality' or, simply, 'governmentality' (Foucault, 1997a, 1997b, 2000a, 2000b; 2000c). Foucault's initial work on disciplinary power was focused on techniques and strategies addressed to shape, observe and control individual human subjects within specific local institutions, a kind of political analysis he called the 'microphysics of power'. Foucault's later work on governmentality consists in a similar kind of analysis, but now applied at the level of political power over an entire society (Gordon, 1991). Rather than microphysical, it is a macrophysical approach to power, addressed to governmental practices intended to govern populations of living human beings (Gordon, 1991). Foucault was interested in government, understood not simply as political institutions or the state, but rather as "an activity that undertakes to conduct individuals throughout their lives by placing them under the authority of a guide responsible for what they do and for what happens to them" (Foucault, 1997, p. 67). Foucault's

concept of government is perhaps better grasped by the expression the 'conduct of conduct' (Foucault, 2000c, p. 341; Gordon, 1991, p. 2). The word 'conduct' has a double sense. In its verbal form, 'to conduct' means leading, guiding and directing in a relatively calculated manner. It involves leading others as well as leading oneself (self-regulation) (Dean, 1995, 1999). In its noun form, 'conduct' means a way of behaving, thinking and acting in accordance with certain sets of norms and standards. Government as the 'conduct of conduct' thus means "the deliberate direction of people's articulated set of behaviours" (Skålén, Fellesson and Fougère, 2006, p. 277). It is about "the more or less calculated means of direction of human conduct" (Dean, 1995, p. 561).

As Dean (1999) explains, "from the perspective of those who seek to govern, human conduct is conceived as something that can be [rationally] regulated, controlled, shaped and turned to specific ends" (p. 18). Government presupposes that the governed are free, as "it is possible for them to act and think in a variety of ways, and sometimes in ways not foreseen by authorities" (Dean, 1999, p. 21). Hence, "the object of government is the conduct of the 'free subject'" (Dean, 1995, p. 561). At the same time, government also presupposes rationality on the part of those who govern, which leads to the concept of 'governmentality'. "Rationality is the idea that before something can be governed or managed, it must first be known. It is the acknowledgment that government is intrinsically dependent upon particular ways of knowing" (Townley, 1993, p. 520). As Rose, O'Malley and Valverde (2006) put it, "To govern, ... whether to govern a household, a ship, or a population, it [is] necessary to know that which [is] to be governed, and to govern in light of that knowledge" (p. 87). Governmentality is therefore about "how to govern" (Gordon, 1991, p. 7), an activity that is contingent upon particular forms of knowledge and expertise, "often derived from human sciences (such as psychology, economics, management or medicine" (Dean, 1999, p. 25). Hence, the practices of government are formed in relation to particular rationalities and forms of knowledge and truth. Moreover, not only the activity of governing varies with what one believes to be the truth of the world, but it also produces different forms of truth (Dean, 1999). That is,

On the one hand, we govern others and ourselves according to what we take to be true about who we are, what aspects of our existence should be worked upon, how, with what means, and to what ends. ... On the other hand, the ways in which we govern and conduct ourselves give rise to different ways of producing truth. (Dean, 1999, p. 27)

This idea is illustrated by Dean (1999) as follows: "National government in contemporary states is unthinkable without some conception of the economy, whether it is conceived as a national or global economy, and the attempt to govern economies leads to the production of knowledge about employment, inflation, trade and so on" (p. 27). The notion of governmentality therefore implies a dialectical relationship between government (as a form of power) and knowledge.

Foucault's concept of government as the 'conduct of conduct' involves not only processes of power/knowledge but also modes of subjectification (Dean, 1995, 1999). Governmentality is thus seen as productive. The rational practices of government not only produce truth and knowledge; they also envision a 'desired' subjectivity. As Dean (1999) puts it, governmentality is concerned with the production of forms of identity, rather than 'real' subjectivities:

The forms of identity promoted and presupposed by various practices and programmes should not be confused with a *real* subject, subjectivity or subject position... Regimes of government do not *determine* forms of subjectivity. They elicit, promote, facilitate, foster and attribute various capacities, qualities and statuses to particular agents. (pp. 43-44, emphasis in original)

In other words, the practices of government – by fostering the interiorization of certain values, attitudes, attributes, capacities and beliefs – hope to regulate individuals toward a 'desired' subjectivity, or form of identity, which makes them particularly governable.

### **5.3 Foucauldian approaches to corporate strategy discourse**

Within critical management studies, several scholars have drawn upon a poststructuralist Foucauldian methodology to examine managerial discourses and practices across a wide range of subdisciplines and topics, including accounting (e.g., Edenius and Hasselbladh, 2002; Anderson-Gough, Grey and Robson, 2000; Ezzamel, 1994; Miller and O'Leary, 1987; Hoskin and Macve, 1986), human resource management (e.g., Deetz, 2003; Townley, 1993), general management (e.g., Knights and McCabe, 1999; Covalleski, Dirsmith, Heian and Samuel, 1998), marketing (e.g., Skålén and Fougère, 2007; Skålén, Felleson and Fougère, 2006; Hodgson, 2002; Knights and Sturdy, 1997), and strategy (e.g., Hardy and Thomas, 2014; McCabe, 2010; Ezzamel and Willmott, 2010, 2008, 2004; Knights, 1992; Knights and Morgan, 1995, 1991).

While the study of discursive aspects of strategy has attracted the interest of many researchers (see Balogun and colleagues, 2014, for a review of the six major perspectives: post-structural, critical discourse analysis, narrative, rhetoric, conversation analysis, and metaphor), that the poststructuralist Foucauldian approach has gained particular relevance in critical strategy, for which the paper of Knights and Morgan (1991) was seminal, is beyond dispute. The Foucauldian strand of critical strategy scholarship has tended to emphasize the power effects of strategy discourses and practices on the production of 'truth' and 'subjectivity' (Knights and Morgan, 1991, 1995; Knights, 1992). Knights and Morgan's (1991) genealogical analysis reveals the historical conditions that made a discourse on strategy possible (though not inevitable), and how it came to produce particular ways of seeing organizations and to constitute managerial and labour

subjectivities. From a Foucauldian thinking perspective, strategy discourse is understood as a technology or mechanism of power that legitimizes the exercise of power, and transforms managers and employees into subjects who secure meaning, purpose, and identity through participation in strategic practices (Knights and Morgan, 1991, 1995; Knights, 1992). As Ezzamel and Willmott (2010) put it, the “Foucauldian analysis attends to how forms of strategy discourse constitute, discipline and legitimize particular forms of organizational knowledge (‘strategy’), executive identity (the ‘strategist’) and management practice (‘strategizing’) (p. 102). Foucault’s concept of governmentality has nevertheless been rarely used within critical strategy. Although it has been recognized that strategy discourse “entered management practice as an element of corporate government rationality, or what Foucault ... described as governmentality” (Knights, 1992, p. 523), few scholars have elaborated on the nature of governmentality and how it offers a way of understanding strategy (Knights, 1992; McKinlay, Carter, Pezet and Clegg, 2010).

Scholars have also utilized the writings of Foucault to empirically analyse strategy discourse and practices (e.g., Hardy and Thomas, 2014; McCabe, 2010; Ezzamel and Willmott, 2008, 2004; Knights and Morgan, 1995). Knights and Morgan (1995) examine the historical conditions of strategic discourse and practice in UK financial services to acknowledge its accidental, uneven and discontinuous development in distinct sectors of the industry. They also explore the power effects of strategic management discourse in constituting subjectivities both internally (i.e., managers and employees) and externally (i.e., consumers of financial services). Furthermore, their case study on the development of an IT strategic discourse and practices in a life insurance company illustrates how the market and regulatory conditions that made possible a discourse on IT strategic management in the first place may paradoxically result in its disruption. Ezzamel and Willmott (2004) interpret a statement by a company’s CEO to illustrate how strategy discourse works as a power/knowledge mechanism, for endorsing a ‘regime of truth’ about the company, its history and environment, and positioning the activity and identity of the CEO and employees within certain strategic management practices. Ezzamel and Willmott (2008) develop a Foucauldian analysis that focus on what “the discourse of strategy does” (p. 211), which contrasts with other established analyses (e.g., rationalist and interpretivist) that examine “what strategic management is” (p. 211). By analyzing a global retailer’s strategy activity, their study shows how the discourse of strategy is constitutive of objects of study (such as ‘strategy’, ‘strategists’ and ‘strategizing’), how accounting practices and technologies may be articulated with the production and dissemination of strategic discourse, and how strategizing activity may also be mobilized to resist change. McCabe (2010) examines the use of ambiguity in strategy discourse. His critical analysis suggests that power may be exercised in ambiguous ways to both promote and prevent managerial initiatives, highlighting the potential of strategic ambiguity “to amplify conflict and resistance because individuals must interpret

a given situation and may do so in different ways” (p. 171). Hardy and Thomas (2014) adopt a Foucauldian approach to explore how two strategy discourses (market discourse and professional discourse) of a global communications company produce strategy objects and subjects aligned with strategy. Their findings suggest that “the power effects of particular discourses are neither automatic nor deterministic: the discourse has to be intensified through material and discursive practices that normalize and extend its reach” (p. 342). That is, for discourses to constitute strategy, their power effects have to be intensified; intensification occurs through engagement of multiple actors in a variety of local practices that help to disseminate and stabilize the strategy discourse. In addition, Hardy and Thomas’ (2014) study shows that the power effects of strategy discourse, however, do not arise without instances of oppositional resistance (even in the case of the highly intensified market discourse). Moreover, attempts to change the meaning of strategy may occur either in an intentional and coordinated manner (the case of the market discourse) or not (the case of the professional discourse), but still with significant effects. Finally, their study shows that when the power effects are intensified, the strategy objects and subjects are produced in a self-reinforcement relationship that reproduces the strategy discourse.

Even though the increasing interest in critical strategy studies (see Balogun et al., 2014), for which the work of Foucault has been very inspirational as previously illustrated, it is quite surprising that an important strategic concept like DC, which has assumed great relevance within strategic management studies, has not deserved critical investigation. Meaning that, for more than two decades since TPS and EM seminal papers on the DC framework, critical approaches to strategy discourse have not explored the taken-for-granted assumptions and philosophies embedded in DC discourse, nor examined its central role as a basis of knowledge and power within the strategy discourse more broadly. This neglect is particularly perplexing given that the DC framework arose as an attempt to respond to a fundamental quest (if not the holy grail) of strategic management, which is to find the sources of competitive and sustainable advantages, namely in increasingly dynamic environments. The present study offers a poststructuralist Foucauldian analysis of the DC discourse in mainstream academic literature which intends to contribute to fill this gap.

## **5.4 Dynamic capabilities as discourse: a Foucauldian approach**

The present analysis intends to explore the power/knowledge relations and the associated subjectivities that are embedded in the managerialism of mainstream academic DC discourse. As previously discussed, Foucault’s concepts of power, knowledge and subjectivities are perhaps most apparent in his later work on governmentality (Foucault, 1997a, 1997b, 2000a, 2000b; 2000c. This said, the following research question will guide the analysis at issue: **How can governmentality be**

**used to analyse the power effects of mainstream academic DC discourse?** To address this question, I will draw upon the governmentality framework suggested by Dean (1995, 1999), which builds on Foucault's concept of governmentality, to further examine the mainstream academic DC discourse in terms of what it seeks to govern, the means by which it proposes to do so, what subjectivities it produces, and the goal it intends to achieve. Dean's (1995, 1999) governmentality framework has already been used to study the governmental-ethical practices of the unemployed (Dean, 1995) as well as marketing discourse (Skålén, Fellesson and Fougère, 2006), but not yet to examine strategic discourse and practices, nor the academic discourse of DC more specifically.

#### 5.4.1 Governmentality framework

Dean's (1995, 1999) governmentality framework considers four dimensions that should be analysed in studies of governmentality:

- The **first** "involves ontology, concerned with *what* we seek to act upon, the *governed or ethical substance*" (Dean, 1999, p. 26). In the case of DC discourse, it is important to consider the two existing approaches for interpreting DC. On the one hand, the organizational-level view that conceptualizes DC as managerial and organizational processes and routines (TPS; EM; Zollo and Winter, 2002; Teece, 2007). On the other hand, the individual-level approach which construes DC as decision-making activities reliant on the competences and skills of executives and top managers (Adner and Helfat, 2003; Helfat and Peteraf, 2015). Since "government concerns the shaping of human conduct" (Dean, 1999, p. 23), an analysis of what the DC discourse intends to govern at the organizational level requires that firms be interpreted as collectives of individuals. However, since firm-level conduct depends on human actions and decision-making, it is ultimately the activity of specific individuals within the organization (often executives and top managers) that DC discourse seeks to govern. The ontology analysis will therefore consider both firm-level and individual-level governed conducts.

- The **second** dimension "involves ascetics, concerned with *how* we govern this substance, the *governing or ethical work*" (Dean, 1999, p. 26). To analyse the ascetics dimension I will examine the practices of DC discourse in which firms and managers have to be involved for them to be governed. At the organizational level, I will discuss how firm-level practices support managers in their endeavors to delineate the firm's expected conduct. At the individual level, I will consider the means by which managers are expected to regulate their own (and 'desired') conduct.

- The **third** dimension "involves deontology, concerned with *who* we are when we are governed in such a manner, our 'mode of subjectification', or the *governable or ethical subject*" (Dean, 1999, p. 26). The deontology analysis "brings us to the mode of subjectification of the individual, what

[the] practices [of DC discourse in our case] hope to produce and the type of self-relation they promote” (Dean, 1995, p. 576). Hence, the focus will be on examining what subjectivities the DC discourse envisions, both at organizational and individual level. More specifically, I will discuss what kind of enterprise the DC discourse envisions, and analyse the mode of subjectification (and identities) of the individual manager that it expects to create.

- The **fourth** dimension “entails a teleology, concerned with *why* we govern or are governed, the ends or goal sought, what we hope to become or the world we hope to create, that which might be called the *telos of governmental or ethical practices*” (Dean, 1999, p. 27). To explore the teleology dimension, I will examine ‘in the name of what’ the DC discourse has been constituted (its grand purpose) and the kind of corporate world it intends to create.

In what follows I critically investigate the mainstream academic DC discourse, starting by briefly describing its historical background to further examine its governmental rationality.

#### **5.4.2 Historical background**

The discourse of DC was born in the United States of America, emerging within the field of strategic management as a proposal of Teece, Pisano and Shuen (1997) to examine the “sources of wealth creation and capture by firms” (p. 509). It should be noted that despite the work of Teece and colleagues had only been published in journal in 1997 it was first available in working paper format seven years before (see Teece, Pisano and Shuen, 1990). The DC framework was introduced by TPS with the purpose of understanding how and why certain firms are able to achieve and sustain competitive advantage in fast changing environments. Finding the sources of competitive advantage has always been at the heart of strategic management scholarship (Porter, 1980; Shapiro, 1989; Barney, 1991; Peteraf, 1993; Amit and Schoemaker, 1993; Prahalad and Hamel, 1990). However, existing strategic management approaches seemed to be unable to explain the sources of competitive advantage in contexts of rapid technological change (TPS). The competitive forces (Porter, 1980) and the strategic conflict (Shapiro, 1989) approaches that emphasized strategies for exploiting market power, and had thrived in the 1980s, were claimed to have missed the building of a “dynamic view of the business enterprise” (TPS, p. 513). In turn, the RBV that had developed in the 1990s, and rather focused on strategies for exploiting existing firm-specific resources, assets and competences (Barney, 1991; Peteraf, 1993; Amit and Schoemaker, 1993; Prahalad and Hamel, 1990), was said to have overlooked strategies for exploring new competences and capabilities to respond to changes in the business environment (TPS). Emerging as an extension to the RBV, the DC framework was intended to fill this gap. By emphasizing the “development of management capabilities and difficult-to-imitate combinations of organizational, functional and technological skills” (TPS, p. 510), it was presented as

a promising approach “both in terms of future potential research and as an aid to management endeavouring to gain competitive advantage in increasingly demanding environments” (TPS, p. 510). As Teece (2007) has later put it:

in fast-moving business environments open to global competition, and characterized by dispersion in the geographical and organizational sources of innovation and manufacturing, sustainable advantage requires more than the ownership of difficult-to-replicate (knowledge) assets. It also requires unique and difficult-to-replicate dynamic capabilities. (p. 1319)

While TPS’s paper proved to be highly influential in the construction of mainstream academic DC discourse, it was not the only one. Published three years later, Eisenhardt and Martin’s (2000) paper – which offered a different approach for framing DC – came to be considered a second seminal contribution (Peteraf et al., 2013). Like TPS’s, EM’s framing extends the RBV and focuses on the role of managerial and organizational processes. However, in contrast with TPS, who view DC as idiosyncratic and difficult-to-imitate/replicate and therefore a source of competitive and sustained advantage, EM describe DC as best practices which, by exhibiting commonalities that render them more equifinal, substitutable and homogeneous than under TPS’s conception, cannot contribute significantly to competitive and sustained advantage. For EM the potential for long-term competitive advantage “lies in using [DC] sooner, more astutely, or more fortuitously than the competition to create resource configurations that have that advantage” (p. 1117). They further conclude that “long-term competitive advantage lies in the resource configurations that managers build using [DC], not in the capabilities themselves” (p. 1117).

In addition, EM distinguish between DC in high-velocity markets and in moderately dynamic markets. In the latter, DC are “complicated, detailed, analytic processes that rely extensively on existing knowledge and linear execution” (p. 1106) with “predictable outcomes” (p. 1106). In the former, DC “are simple, experiential, unstable processes that rely on quickly created new knowledge and iterative execution” (p. 1106) with “unpredictable outcomes” (p. 1105). Hence, in moderately dynamic markets DC are “easily sustained and even inertial” (EM, p. 1113), while in high-velocity markets DC “become difficult to sustain” (EM, p. 1113). By considering that the patterns of DC vary with market dynamism, EM question the applicability of TPS’s framework in fast changing environments, precisely the kind of settings for which the DC framework was originally envisioned. In other words, by questioning whether, how and when DC can allow firms to achieve and sustain competitive advantage, EM challenge the main purpose of TPS’s contribution.

As both TPS’s and EM’s papers have contributed to the foundational structure of the DC research domain (Peteraf et al., 2013), it is possible to say that the mainstream academic DC



discourse has been constructed around the two seminal contributions. Although it could be argued that TPS and EM represent two divergent discourses, for the purpose of undertaking the present governmentality analysis, I rather assume that there are two contrasting views that have coexisted within the mainstream academic DC discourse. In fact, despite the exiting contradictions that have divided the DC research domain into two distinct knowledge pools (Peteraf et al., 2013), TPS and EM also share a common base of knowledge, as both “focus on the role of organizational routines, both concern managerial as well as organizational processes, and both portray the dynamic capabilities framework as an extension of the resource-based view” (Peteraf et al., 2013, p. 1392). Moreover, as it will be seen, in terms of governmentality analysis, the most important, if not the only, aspect in which the DC discourse truly diverges is in ‘why’ we (firms and practitioners) are governed. It is primarily in respect to the main purpose of the DC framework that EM’s contribution offers as a form of oppositional resistance to TPS’s position, which nevertheless scholars have been struggling to harmonize (e.g., Peteraf et al., 2013; Di Stefano et al., 2014; Nayak et al., 2020).

### **5.4.3 The governmentality of mainstream academic DC discourse**

Next, I draw upon Dean’s (1995, 1999) governmentality framework to examine the mainstream academic DC discourse in terms of what it seeks to govern (ontology), how it governs (ascetics), who we are when we are governed (deontology), and why we are governed (teleology).

#### **What does DC discourse seek to govern (ontology)?**

Mainstream scholarship has developed two approaches for interpreting DC. On the one hand, the organizational-level view that conceptualizes DC as organizational processes and routines (TPS; EM; Zollo and Winter, 2002; Teece, 2007). On the other hand, the individual-level approach which construes DC as decision-making activities reliant on the competences and skills of executives and top managers (Adner and Helfat, 2003; Helfat and Peteraf, 2015). Despite focusing on different objects, the two approaches are connected. According to Teece (2007), dynamic capabilities “reside in large measure with the enterprise’s top management team, but are impacted by the organizational processes, systems, and structures that the enterprise has created to manage its business in the past” (p. 1346). In other words, DC relate to firm-level activities to run the business, but these are necessarily linked to managerial actions and decisions. Consequently, DC discourse has produced two different (yet connected) objects of knowledge which it further seeks to govern.

At the organizational level, DC discourse seeks to act upon the conduct of firms. Successful firms are expected to develop specific practices, corresponding to managerial and organizational processes that will enable them to reconfigure their resource and competence base to match the

requirements of changing environments (TPS; EM; Zahra et al., 2006; Teece, 2007). However, firms are made up of individuals, and firm-level conduct ultimately depends on human actions and decision-making. This brings us to the analysis of governmentality of DC discourse at the individual level. Actually, government is “an activity that undertakes to conduct individuals throughout their lives by placing them under the authority of a guide responsible for what they do and for what happens to them” (Foucault 1997, p. 68). As such, in the end of the day, it is the conduct of specific individuals within the organization that DC discourse seeks to govern. In particular, executives and top managers represent the target audience of mainstream academic DC discourse. Executives and top managers are expected to make strategic decisions in response to external changes (e.g., Rosenbloom, 2000; Tripsas and Gavetti, 2000), decisions that operate on the resource and capability base and that will affect business performance (Adner and Helfat, 2003). They are said to assume a critical role in effective asset orchestration and redesign of processes and routines over time (Teece, 2012; Helfat et al., 2007; Teece, 2007). The need to sense, seize and reconfigure when change occurs requires that they take on a key strategic function regarding “allocation, reallocation, combination, and recombination of resources and assets” (Teece, 2007, p. 1341). They are claimed to have “the capability for evaluating and prescribing changes to the configuration of assets (both within and external to the organization)” (Teece, 2012, p. 1397). Hence, executives/top managers are said to know the ‘truth’ about resource reconfiguration and strategic change.

### **How does DC discourse govern (ascetics)?**

Government is “understood in the broad sense of techniques and procedures for directing human behavior. Government of children, government of souls and consciences, government of a household, of a state, or of oneself” (Foucault 1997, p. 81). Government of firms and their managers in our specific case of DC discourse. An analysis of the governmental practices of DC discourse needs to distinguish between firm-level practices and individual-level practices.

At the organizational level, the ‘truth’ produced by the mainstream academic DC discourse about successful firms operating in dynamic settings requires that they create and develop distinctive organizational and managerial processes. The latter processes refer to “the way things are done in the firm, or what might be referred to as routines, or patterns of current practice and learning” (TPS, p. 518). In broad terms, these firm-level practices consist in coordinating/integrating internal activities as well as external activities and technologies, learning processes through repetition and experimentation, and reconfiguring the firm’s asset structure to accomplish internal and external change (TPS). They can also take the form of more identifiable and specific organizational and strategic routines, often known as ‘best practices’, such as new product development, strategic alliancing, quality control, technology transfer and/or knowledge transfer

(EM). The underlying practices of firm-level DC can otherwise be disaggregated into more specific activities, processes and procedures for i) sensing and shaping opportunities and threats (e.g., selecting new technologies and directing internal R&D; tapping supplier and complementor innovator; tapping developments in exogenous science and technology; identifying target market segments, changing customer needs and customer innovation), ii) seizing opportunities (e.g., delineating the customer solution and the business model; selecting decision-making protocols; selecting enterprise boundaries to manage complements and control platforms; building loyalty and commitments), and iii) enhancing, combining and reconfiguring the firm's tangible and intangible assets (e.g., practices of decentralization, governance, co-specialization and knowledge management) (Teece, 2007). Sensing, seizing and reconfiguring can also be articulated in terms of routines associated with forms of ambidexterity, that is, practices for firms to simultaneously explore future opportunities and exploit current businesses (O'Reilly and Tushman, 2008).

Despite DC scholars frame the underlying practices of firm-level DC in different ways, conceived as managerial and organizational processes and routines, from a critical perspective informed by Foucault's concept of governmentality, DC represent a series of governmental practices that are intended to provide guidance (to managers) on how firms can deal with changing environments, and even create market change. In other words, all such firm-level practices, that are instituted and sponsored by DC discourse, work as disciplinary techniques (and support managers in their endeavors) to create successful firms in increasingly changing environments.

Although related to firm-level practices and activities, DC are linked to managerial decisions and actions, and to managerial ability to sense, seize and reconfigure (Teece, 2007). As Adner and Helfat (2003) put it, "Strategic decisions at the top of an organization do not emerge from a disembodied decision-making process – managers make these decisions" (p. 1012). At the individual level, the DC discourse is translated into particular practices that constitute the 'truth' about what it is to be a manager (or corporate-level decision maker) that builds and sustains DC. That is, in order for managers to be able to decide on how to build, integrate, and reconfigure firms' resources and competences, they need to undertake certain individual practices that regulate their own (and 'desired') conduct. These practices are conducive to the creation and development of managerial skills and competences at three levels: human capital, social capital, and cognition (Adner and Helfat, 2003; Helfat and Peteraf, 2015; Helfat and Martin, 2015a). Corporate-level decision makers are expected to invest in education, training and learning practices that develop their human capital skills, which can be further sharpened through work experience and actual practice on the job. They are supposed to be involved social networking practices, both internally and externally, that provide access to resources and information relevant for successful decision making. They are requested to engage in mental activities that comprise cognition, such as attention, perception and problem

solving (Helfat and Peteraf, 2015). Cognition also involves processes of learned behavior and emotion that are determinants of human action (Salvato and Vassolo, 2018). The cognition, human capital and social capital that are developed from such individual-level practices enable managers to sensing and seizing opportunities as well as to reconfiguring and orchestrating assets (Helfat and Peteraf, 2015; Helfat and Martin, 2015a).

The conduct of managers is then shaped and regulated by a range of ‘ascetic’ practices that are believed to develop the human capital, social capital, and cognition capabilities required for them to be able to make better strategic decisions, namely in contexts of environmental dynamism. At the individual level, the DC discourse does not explain how managerial decision making should be accomplished, but rather establishes and endorses certain practices that shall produce the ‘desired’ managerial attributes and skills to build and sustain organizational DC. By establishing the value of human capital, social capital, and cognition for effective corporate-level decision making, and postulating the means to develop these skills and capabilities as well as the firm-level practices and technologies that enable managers to deal with dynamic environments, current and aspiring corporate managers are necessarily governed by the power/knowledge of DC discourse.

### **Who we are when we are governed by DC discourse (deontology)?**

As conceived by DC scholars, the power/knowledge of DC discourse and practices envisions a certain kind of firms and managers. At the organizational level, consistent with TPS’s original vision, the DC framework “endeavors to explain firm-level success and failure” (p. 509). According to Teece, “the development and exercise of (internal) dynamic capabilities lies at the core of enterprise success (and) failure” (Teece, 2007, p. 1320) and “[s]trong dynamic capabilities are critical to success” (Teece, 2012, p. 1396). By these statements, Teece and colleagues suggest that firms that are able to create and develop DC over time are expected to succeed (reaching entrepreneurial rents), while those that don’t will most likely fail (falling in a zero-profit condition). Hence, successful firms are the kind of enterprise that the DC discourse envisions to produce. To be successful for mainstream DC scholars often means to be profitable (TPS; Helfat et al., 2007; Teece, 2007), entrepreneurial and innovative (Teece, 2007, 2012), ambidextrous (O’Reilly and Tushman, 2008). A firm’s success can also be measured in terms of growth (EM; Helfat et al., 2007). The underlying practices of firm-level DC are designed to create and promote successful firms.

According to Teece (2007), firms “with good [DC] will have entrepreneurial management that is strategic in nature and achieves the value-enhancing orchestration of assets inside, between, and amongst enterprises and other institutions within the business ecosystem” (p. 1344). Teece (2012) describes entrepreneurial management as having “little to do with standardized analysis and optimization. It is more about figuring out the next big opportunity or challenge and how to address

it – rather than maintaining and refining existing procedures” (p. 1398). As such, at the individual level, DC discourse hopes to make the individual manager a **‘dynamic subject’**, that is, someone who is constantly acting in a strategic, non-routine and entrepreneurial manner (Teece, 2012). The ‘dynamic subject’ must have certain attributes, skills and competences, and is the entrepreneur of his/her own dynamic managerial capabilities. Managerial cognition, managerial human capital and managerial social capital capabilities around sensing, seizing, and reconfiguring are believed to be key attributes required to build and sustain DC (Helfat and Peteraf, 2015; Helfat and Martin, 2015a). Managerial leadership skills are often said to be critical to maintaining DC (Teece, 2007, 2012). In ambidextrous firms, managers must also be “consistently inconsistent, encouraging both exploration and exploitation” (O’Reilly and Tushman, 2008, pp. 199-200).

It should be noted that, save for few studies (e.g., Salvato, 2009; Salvato and Vassolo, 2018), DC scholars have neglected the contribution of individual employees to the creation and development of DC. The subjectivities created (and identities attributed) by the power/knowledge of mainstream academic DC discourse are therefore mostly related with the individual manager (often executives and top managers). This said, the managerialism of DC discourse imposes on individual managers the responsibility (and eventually the ambition of individual employees) to engage in certain ‘ascetic’ practices at the individual level in order to become a ‘dynamic subject’. At the same time, a range of firm-level practices enable managers to deal with dynamic environments, while reinforcing his/her own dynamic self. In short, managers need to work on a dynamic self, a self that is entrepreneurial, strategic, leader, socially active, cognitively capable, educated and experienced, and therefore capable of leading firms to achieve success (rather than failure).

### **Why are we (firms and practitioners) governed (teleology)?**

Examining the teleological dimension of the governmentality of DC discourse requires that we question ‘in the name of what’ the DC discourse has been constituted (its grand purpose) and the kind of corporate world it intends to create. When the DC framework was ‘officially’ born by the minds of TPS, their stated ambition was “to analyze the sources of wealth creation and capture by firms” (TPS, p. 509), or, more specifically, to provide an explanation of “how firms achieve and sustain competitive advantage” in “regimes of rapid change” (TPS: 509). As Teece (2007) puts it:

The ambition of the dynamic capabilities framework is nothing less than to explain the sources of enterprise-level competitive advantage over time, and provide guidance to managers for avoiding the zero profit condition that results when homogeneous firms compete in perfectly competitive markets. (p. 1320)

At the organizational level, DC discourse and practices seek to engender a corporate world composed of firms that generate entrepreneurial rents and sustained competitive advantages, and ultimately “national competitive advantage” (TPS, p. 530). Why does it matter? It matters at both micro and macro levels. At a micro-level, corporate profits and advantages contribute to increase the value of firms and the likelihood of dividends’ distribution, which make firms’ owners and shareholders potentially wealthier. At a macro-level, profitable companies increase the tax national base, with positive impact on state budgets, whereas corporate advantages leading to national competitive advantage puts a country in a better position in the international trade arena.

The purpose of TPS’s original DC framework – to explain the sources of competitive and sustained advantage in fast changing environments – has nevertheless found some forms of oppositional resistance, the most important of which perhaps coming from EM’s (also) seminal contribution (Peteraf et al., 2013). By considering that DC “reflect an organization’s ability to achieve new and innovative forms of competitive advantage” (p. 316), TPS link DC directly to the notion of competitive advantage, and they do so in relation to both the short- and long-term. EM challenge this position and claim that “dynamic capabilities *per se* can be a source of competitive, but not sustainable, advantage” (p. 1110). For EM, DC themselves are not a direct source of sustained advantage, but rather facilitate new resource configurations that can offer a long-term competitive advantage. In addition, EM consider that long-term competitive advantage is rarely achieved in highly dynamic markets, precisely the kind of settings for which the DC framework was originally designed. By questioning the purpose of TPS’s original DC framework, EM’s resistance attests the governmental power of DC discourse. As Foucault (1978) has asserted: “where there is power there is resistance” (p. 95). The fact that EM have questioned the ‘teleological’ dimension of DC discourse has contributed to an extensive debate within DC scholarship, with several authors proposing theories and models that attempt to reconcile the two framings (e.g., Peteraf et al., 2013; Di Stefano et al., 2014; Nayak et al., 2020). The struggle of mainstream scholars to harmonize the academic DC discourse around whether, when and how the DC framework can explain competitive and sustained advantage actually contributes to the empowerment of the own DC discourse.

At the individual level, the DC discourse legitimates the position of individual managers as permanent seekers of superior profit and growth, rendering themselves vehicles to the requirements of capitalism. In the name of “wealth creation and capture by firms” (TPS, p. 509), strategic and entrepreneurial managers are supposed to be constantly looking for the next big (profitable) opportunity, and in this way reinforcing their own position as ‘dynamic subjects’.

The risk of the mainstream academic DC discourse is that it contributes to normalizing organizations and their members (often executives and top managers). This said, how can firm-level heterogeneity be achieved if, in the end of the day, all firms and managers follow similar practices?

Wouldn't heterogeneity be compromised if all organizations adopt similar conducts (delineated by the same firm-level practices of government) and all managers are shaped to think and to act alike when they face similar external change? As Knights and Morgan (1991) would say, it seems that "the discourse [of DC in our case] also *constitutes the problems for which it claims to be a solution*" (p. 255, emphasis in original). Obviously, firms and individuals may adopt conducts that are different from those that the DC discourse seeks to govern, as well as to resist it. Government presupposes that the governed are free, as "it is possible for them to act and think in a variety of ways, and sometimes in ways not foreseen by authorities" (Dean, 1999, p. 21). As such, firms are free to follow alternative organizational practices to the ones prescribed by DC discourse, and managers are free to act in a different way than being entrepreneurial and strategic. However, what if DC are actually the key to competitive and sustainable advantages? Are firms and individuals truly willing to take the risk of resisting to DC discourse? This is the million-dollar question that deserves further investigation.

#### **5.4.4 Concluding remarks**

While firms always had to adapt to market and technological changes, even before any academic DC discourse has ever existed, the unsatisfactory responses provided by previous approaches on how firms can create and sustain competitive advantages in increasingly changing environments has made possible an academic DC discourse to emerge. Considering that scientific discourse creates most of the taken-for-granted knowledge that we need to question (Knights, 1992), it is time for DC scholars to critically investigate the mainstream academic DC discourse. Foucault's concept of governmentality offers a way of doing that. The present study, which builds upon Dean's (1995, 1999) governmentality framework, makes an important contribution to the study of DC from a poststructuralist Foucauldian critical perspective.

The governmentality analysis of DC discourse reveals the power/knowledge of DC discourse, and the associated subjectivities that it hopes to produce. In order to govern "it [is] necessary to know that which [is] to be governed, and to govern in light of that knowledge" (Rose et al., 2006, p. 87). Government presupposes rationality, which "is the idea that before something can be governed or managed, it must first be known. It is the acknowledgment that government is intrinsically dependent upon particular ways of knowing" (Townley, 1993, p. 520). At the organizational level, the government of firms is unthinkable without a conception of what firms are expected to achieve (success rather than failure). DC discourse and associated firm-level practices (to deal with changing environments) attempt to produce successful firms. And the attempt to govern firms leads to the production of knowledge about things such as profitability, rents, growth, effectiveness, competitive advantage, strategic change. At the individual level, the government of

individual managers is unlikely without knowing how they should look like (the dynamic managerial capabilities they must have to effectively sense, seize and reconfigure, and thus to create and maintain DC). DC discourse and individual-level 'ascetic' practices hope to make the individual manager a 'dynamic subject'. And the attempt to govern managers leads to the production of knowledge about entrepreneurial, strategic and non-routine management.

DC discourse therefore works as a technology or mechanism of power. On the one hand, it legitimizes the exercise of power by certain firms who are said to know the 'truth' about how to effectively deal with increasingly changing environments. These firms are often referred to as multinational enterprises that have to deal with the challenges of global markets and rapid technological change (Teece, 2007). In this way, DC discourse naturalizes the superior position of certain firms (multinationals, as opposed to small/medium firms) within the global competition arena. On the other hand, DC discourse legitimizes the exercise of power by executives and top managers, who are said to know the 'truth' about what it is to create and maintain organizational DC leading to successful firms. DC discourse transforms managers into 'dynamic subjects' who secure meaning, purpose, and identity through constantly working on a dynamic self that is reinforced by engaging the firms they lead in strategic, entrepreneurial and non-routine activities.

While the present governmentality analysis informs us about the power effects of DC discourse, it also opens up avenues for future investigation. It would be interested to complement the governmentality analysis with an analysis of practice (empirical studies). For instance, researchers are invited to examine how and to what extent firms and individuals are actually governed by mainstream academic DC discourse across countries or regions (e.g., US vs. Europe), industries or markets (e.g., highly dynamic vs. moderately dynamic) and types of companies (e.g., multinational enterprises vs. nascent companies). Other less obvious research questions include: To what extent does the DC discourse legitimize the introduction of more invasive and tighter mechanisms of control that can make individual managers more visible and governable? More specifically, does a dynamic self requires that executives and top managers be available for firms 24/7? Whether and how the need of being a dynamic manager reinforce the asymmetric power relations within organizations? While the present governmentality study offers for the first time a critical perspective over mainstream academic DC discourse, it also hopes to stimulate scholars to explore these and other questions toward the construction of a wider critical investigation.



# Chapter 6 Conclusions

## 6.1 Summary of the approaches developed

This thesis is concerned with novel approaches to DC theorizing in ways that contrast with but also complement the mainstream view. Having reviewed major academic contributions to the mainstream view of DC, I argue that the latter is weak in its capacity to examine a dynamic concept like DC in a truly dynamic and innovative way. Firstly, the mainstream view reveals a tendency to stabilizing the dynamic and ongoing nature of DC through efforts of representing DC in well-organized names, concepts and categories. This tendency suggests a commitment to an ontology of *being* rather than an ontology of *becoming*, and denotes the lack of process-oriented studies that look at DC as perpetually changing, rather than as a static thing or end-state. Secondly, the mainstream view dedicates little attention to the contribution of actions and interactions of multiple actors within and around the organization (and not restricted to managers) to the microfoundations of DC. Being DC a key strategic concept, a strategy-as-practice approach can broaden our understanding of DC as a socially embedded construct. Thirdly, the mainstream view insists on a managerial discourse that takes for granted that having DC is necessary for firms to reach success in dynamic contexts, and that individual managers must have specific skills in order to create successful firms. These taken-for-granted assumptions and their hidden power effects have not yet been critically investigated. With this in mind, this thesis develops an understanding of DC from three different approaches – process, practice and critical –, each addressing a specific research question (see Table 6.1), which jointly intend to bring dynamism into DC construct and scholarship.

Approaches	Research questions
Process-oriented view (Chapter 3)	How can we make sense of DC from a process-based style of thinking?
Practice-based approach (Chapter 4)	How can a dialectical approach to practice inform about the microfoundations of DC?
Critical perspective (Chapter 5)	How can governmentality be used to analyse the power effects of mainstream academic DC discourse?

**Table 6.1.** Approaches and research questions

### Process-oriented view

The process-based view developed in the thesis interprets DC in terms of actions and interactions, movement and change, process and emergence, rather than a static thing or end-state.

It examines how the mainstream, static perspective of DC contrasts with a process-based view, in respect to certain theoretical underpinnings, assumptions and types of reasoning. Firstly, it considers DC as an ever-flowing reality that is beyond representation through concepts, names and categories, and acknowledges that what is real is the *becoming* nature of DC. Secondly, it highlights the indivisible and immanent nature of DC, in the sense that DC always incorporate past experiences which, depending on how they are learnt and incorporated into present actions, may contribute to reinforce or weaken future DC. In either case, by accumulating past experiences into the present and carrying them into the future, DC necessarily undergo continuous change and transformation. They are always an expanded creation, novel outcome of previous DC. Thirdly, it acknowledges that DC and ordinary capabilities are inseparably intertwined, defining and giving meaning to each other through their everyday relationship. As such, any representational attempt that separates DC from ordinary capabilities, rather than joining them, does not capture the logic of *otherness* intrinsic to DC as a *becoming* phenomenon. Fourthly, it understands DC as a process through which they become what they are as an outcome of ceaseless and dynamic interactions that take place in *between*, not inside or outside boundaries. These interactions provide numerous opportunities for 'dynamizing' an organization's DC while preparing it for future encounters with changing environments. Each interaction is therefore a learning opportunity for creating, reshaping and developing DC. Consequently, DC themselves are unfinished effects of a constant flow of interactions that take place *in between*, not inside or outside boundaries.

The thesis further offers two process-oriented theories, organizational sensemaking theory and ANT, that can aid our process-based understanding of DC. On the one hand, it is proposed that DC are constructed (or terminated) as organizational sensemaking takes place during strategic change processes. Strategic change is described as a journey that often involves organizational sensemaking processes. It is argued that, by enabling strategic change, a successful sensemaking journey facilitates the creation and development of DC. In turn, by deterring strategic change, a failed sensemaking journey inhibits that process. The relationship between sensemaking and DC that is proposed is not one of cause-effect. Rather, it is an ongoing and dynamic interactional relationship, through which DC necessarily undergo continuous change and transformation as collective processes of sensemaking take place toward effective strategic change. Viewed in this way, DC must be understood as process-relational phenomenon, a social happening. On the other hand, an understanding of DC informed by ANT implies that we focus on the connections and associations of all human and nonhuman actors that are put together in action to generate strategic change. Strategic change is portrayed as a *networking* activity that involves the ordering and organizing of both people and objects onto decision making. It is proposed that DC are constructed (or terminated) as new connections and associations between humans and nonhumans are created, while others are

abandoned, replaced or modified. This process is particularly visible in volatile and uncertain contexts, that call for change and transformation. Viewed in this way, DC must be interpreted as interactional effects of networks of heterogeneous materials. Since no *networking* activity is ever fully complete, DC are always unfinished effects of 'heterogeneous engineering'.

### **Practice-based approach**

The thesis proposes an activity theory framework for effective strategic entrepreneurship (SE) that explicates DC as a socially embedded construct. SE is defined as the integration of two interacting and interdependent activity systems: exploitation and exploration. Each activity system is comprised of three main interdepending constituents: the relevant *subject(s)*, the related *community* and the respective *object* of activity; being mediated by specific and distinguishing *artifacts* (technology/tools), *rules* (social norms and shared values) and *division of labor* (organization and role structures); and delivering distinctive *outcomes*. While *opportunity seeking* (i.e., entrepreneurship) is the object of the exploration activity system, *advantage seeking* (i.e., strategic management) is the object of the exploitation activity system. *Radical innovations* and *incremental innovations*, respectively, are the outcomes of the artifact-mediated and object-oriented exploration and exploitation activity systems. In CHAT terms, each activity system has its own inner contradictions. As novel opportunities or new advantages are enacted (expanded objects), each activity system is reorganized and reconfigured accordingly. In addition, the two interacting and interdependent activity systems live in a continuous tension. While the first tension is originated in the competition for scarce resources, the second tension is related to competition between future radical innovations and current products or services that represent today's competitive advantages. These tensions constitute learning opportunities for effective SE to happen. Effective SE is defined as taking place through individual and collective practical search actions for successfully integrating both exploration and exploitation activity systems, whereas *superior and sustained value creation* emerges as a *partially shared object*, and *continuous innovations* are generated as an *outcome*. As individuals within the exploration activity system seek for novel opportunities offered by the environment (explore for future opportunities), some of these will be exploited and might lead to radical innovations (e.g., new organizational forms, new business models, new products/services, new processes). As radical innovations arise as an output of the exploration activity system, they will serve as inputs to the exploitation activity (new advantages to be exploited). This interaction creates novel contradictions within and between the exploration and exploitation activity systems, which are the driving forces for them to evolve (Engeström, 1999b), making it necessary to continuously learn how to best combine exploration and exploitation. Effective SE is therefore a dynamic and

ongoing process in the search for an appropriate balance between exploration and exploitation. That balance is not something fixed or stable over time.

I further argue that firm-level DC originate from such individual and collective practical search actions aimed at effective SE. From an activity-theory perspective, the tensions and contradictions within and between the two interacting activity systems are just starting points, as they represent learning opportunities for effective SE to take place, and for DC to emerge and develop. As such, DC will not emerge and develop if an organization only focuses on exploiting today's advantages. Because the world is constantly changing, sooner or later, today's advantages will vanish and such an organization might have lost the opportunity to adapt to change. Similarly, DC will not emerge and develop if an organization only dedicates to exploring for future opportunities, without ever transforming these into advantages. Adaptation to change also means that the outcomes from past exploration activities (even if these have to be absorbed from third parties) shall be introduced into an organization's exploitation activity system, and exploited as new advantages. In line with this argument, only companies that are able to adapt to change through successfully integrating both exploration and exploitation activity systems (thereby resolving its inner contradictions on a daily basis) will build DC along the way. Ultimately, the microfoundations of DC lie with the tensions and contradictions within and between the two activity systems, as the driving forces for change and continuous innovation. In other words, whether there is a trade-off between exploration and exploitation activity systems, there is an opportunity for DC to emerge and develop from effective SE as a dynamic, ongoing and socially accomplished practice.

### **Critical perspective**

The critical investigation of DC offered in the thesis adopts a Foucauldian poststructuralist approach to explore the power/knowledge relations and the associated subjectivities that are embedded in the managerialism of mainstream academic DC discourse. Dean's (1995, 1999) governmentality framework, which builds on Foucault's concept of governmentality, is used to examine DC discourse in terms of what it seeks to govern (ontology), how it governs (ascetics), who we (firms and practitioners) are when we are governed (deontology), and why we are governed (teleology). Since the mainstream view provides two approaches for interpreting DC – the organizational- and individual-based approaches –, the analysis focuses on both firm- and individual-level governed conducts. The governmentality study reveals the power/knowledge of DC discourse, and the associated subjectivities that it hopes to produce. At the organizational level, the study highlights that the government of firms is unthinkable without a conception of what firms are expected to achieve (success rather than failure). DC discourse and associated firm-level practices (to deal with changing environments) attempt to produce successful firms. In turn, the attempt to

govern firms leads to the production of knowledge about things such as profitability, rents, growth, effectiveness, competitive advantage, strategic change. At the individual level, the study highlights that the government of individual managers is unlikely without knowing how they should look like (the dynamic managerial capabilities they must have to effectively sense, seize and reconfigure, and thus to create and maintain DC). DC discourse and individual-level 'ascetic' practices intend to make the individual manager a 'dynamic subject'. The attempt to govern individual managers then leads to the production of knowledge about entrepreneurial, strategic and non-routine management.

In respect to the teleology dimension, at the organizational-level, the study emphasizes that DC discourse and practices seek to engender a corporate world composed of firms that generate entrepreneurial rents and sustained competitive advantages, and ultimately "national competitive advantage" (TPS, p. 530). The analysis shows that the main purpose of DC discourse as it was originally conceived – to explain the sources of competitive and sustained advantage in fast changing environments – has nevertheless found some forms of oppositional resistance in the academia. Yet, mainstream scholars still struggle to harmonize the academic DC discourse around whether, when and how the DC framework can explain competitive and sustained advantage, and such efforts actually contribute to the empowerment of the own DC discourse. At the individual-level, the study reveals that DC discourse legitimates the position of individual managers as permanent seekers of superior profit and growth, rendering themselves vehicles to the requirements of capitalism. In the name of "wealth creation and capture by firms" (TPS, p. 509), strategic and entrepreneurial managers are supposed to be constantly looking for the next big (profitable) opportunity, and in this way reinforcing their own position as 'dynamic subjects'.

Based on the governmentality study, it is therefore possible to conclude that DC discourse works as a technology or mechanism of power. On the one hand, DC discourse legitimizes the exercise of power by certain firms who are said to know the 'truth' about how to effectively deal with increasingly changing environments. These firms are often referred to as multinational enterprises that have to deal with the challenges of global markets and rapid technological change. In this way, DC discourse naturalizes the superior position of certain firms (multinationals, as opposed to small/medium firms) within the global competition arena. On the other hand, DC discourse legitimizes the exercise of power by executives and top managers, who are said to know the 'truth' about what it is to create and maintain organizational DC leading to successful firms. DC discourse transforms managers into 'dynamic subjects' who secure meaning, purpose, and identity through constantly working on a dynamic self that is reinforced by engaging the firms they lead in strategic, entrepreneurial and non-routine activities.

The key features of the mainstream view of DC and those of each alternative approach developed in the thesis are summarized in Table 6.2.

Approach/view	Key features
Mainstream	<p>Tendency to associate DC with tangible and intangible managerial and organizational elements, such as processes, routines, managerial cognition/human capital/social capital, organizational learning and knowledge. This tendency reflects an entitative and static view of DC, revealing a commitment to an ontology of <i>being</i> (substance view of DC) rather than an ontology of <i>becoming</i> (process view of DC).</p> <p>Emphasis on the managerial role to build/maintain firm-level DC emphasizing what firms and managers have (DC as possession), with little attention to the contribution of actions and interactions of multiple actors within and around the organization (not restricted to managers) to the microfoundations of DC (DC as social practice).</p> <p>Insistence on a managerial discourse that takes for granted that having DC is necessary for firms to reach success in dynamic contexts, and that individual managers must have specific skills in order to create successful firms.</p>
Process	<p>The process-based view interprets DC in terms of actions and interactions, movement and change, process and emergence. It highlights the <i>becoming</i> essence of DC that cannot be captured by well-organized names, categories and concepts. It emphasizes the immanence that is inexorably implicated in the formation of DC, in their strengthening or weakening. It acknowledges that DC and ordinary capabilities are inseparably intertwined, defining and giving meaning to each other through everyday relationships. It rejects a clear separation between organization (internal capabilities) and environment (external context), and rather focuses on the actions and interactions that happen <i>in between</i>, not inside or outside boundaries. It is further proposed that two process-oriented theories, organizational sensemaking and ANT, can aid our understanding of DC as effects of ongoing, dynamic and social processes of ordering and organizing in uncertain and volatile contexts.</p>
Practice	<p>The practice-based approach explicates DC as a socially embedded construct. It is proposed that DC emerge and develop from successfully integrating both exploration and exploitation activity systems (effective SE). Effective SE requires individual and collective practical search actions for effectively dealing with the tensions and contradictions within and between the two interacting and interdependent activity systems. It is collective practical job that involves not only executives and top managers but also employees and other members of the relevant communities, in the construction of sustained and superior value creation. From an activity-theory perspective, the tensions and contradictions within and between the two interacting and interdependent activity systems are just starting points, as they represent learning opportunities for effective SE to take place, and for DC to emerge and develop. The approach suggests that the microfoundations of DC ultimately lie with the tensions and contradictions within and between the two activity systems, as the driving forces for change and continuous innovation.</p>
Critical	<p>The critical investigation adopts a Foucauldian poststructuralist approach to explore the power/knowledge relations and the associated subjectivities that are embedded in the managerialism of mainstream academic DC discourse. The governmentality study examines DC discourse in terms of what it seeks to govern (ontology), how it governs (ascetics), who we (firms and practitioners) are when we are governed (deontology), and why we are governed (teleology). The study reveals the power/knowledge of DC discourse, and the associated subjectivities that it hopes to produce, at both organizational- and individual-levels.</p>

**Table 6.2.** Summary of key features

## 6.2 Contributions to theory

The practice, process and critical approaches contribute to DC theorizing in different, but also complementary ways. In what follows I summarize the specific contributions of each approach developed in the thesis, and briefly discuss how the three alternative approaches also offer complementary perspectives.

The process-oriented view provides a novel look at DC as a *becoming* phenomenon, rather than a static thing or end-state. It contributes to DC scholarship in four important ways. Firstly, in light of the main features of process philosophy, it challenges key theoretical underpinnings, assumptions and types of reasoning of the mainstream view of DC. Secondly, it contributes to disrupt with the “striking tension between dynamic change and (relatively) stable routines, [that] although at the heart of dynamic capabilities, remains somewhat counterintuitive and underilluminated” (Schilke et al., 2018, p. 421). Interpreted as interactional effects of ongoing organizational sensemaking and networking of heterogeneous materials, DC necessarily incorporate into their own being past decisions on routines and processes (repetitious/stable behaviour patterns), but they are always an expanded, novel creation of previous DC (dynamic change). Thirdly, the process-oriented view contributes to connect individual actions (decision making) to collective structure (routines and processes), disrupting with the separation between individual- and organizational-level DC. Finally, the process-oriented view contributes to explain how DC may be a source of competitive and sustained advantage. On the one hand, in uncertain and volatile contexts, depending on how sensemaking is accomplished during strategic change processes, it should also be expected that different firms (with singular sensemaking activities) build distinctive DC through the journey. On the other hand, depending on how people and objects are connected to one another to generate strategic change, different patterns of social relationships and associations will be generated, and consequently distinctive DC will unfold over time. In other words, viewed as unfinished effects of processes of ordering and organizing, which are ongoing, emergent and dynamic by nature, it may be hard (if not impossible) for competitors to imitate a firm’s DC.

The practice-based approach expands our knowledge about the microfoundations and the outcomes of DC, contributing to DC scholarship in many ways. Firstly, it uses for the first time third-generation CHAT to develop a strategy-as-practice approach to study the microfoundations of DC, focusing on what individuals (not restricted to managers) collectively *do* (DC as practice), rather than with what they *have* (DC as possession). Secondly, it provides an activity theory framework for effective SE that explains how DC emerge out of the resolution of the tensions and contradictions within and between two interacting and interdependent object-oriented and artifact-mediated activity systems: exploration and exploitation. Thirdly, the cultural and historical situatedness of the

two activity systems, each with its own and specific tensions and contradictions, makes it difficult (if not impossible) for firms to imitate other firms' effective SE practices, which contributes to explain how DC may be a source of competitive and sustained advantage. Fourthly, since variations in environmental dynamism require different combinations of exploration and exploitation activities over time, the activity theory framework may help explain why patterns of DC vary with market dynamism. Finally, the framework applies to both nascent and established firms.

The critical perspective unveils the hidden power effects of mainstream academic DC discourse. In providing insight into what DC discourse seeks to govern, how it governs, who we are when we are governed, and why we are governed, the governmentality analysis challenges the taken-for-granted assumptions of the mainstream view of DC. The specific contribution of the critical perspective is twofold: firstly, it reveals that DC discourse works as a technology or mechanism of power, producing knowledge and subjectivities; secondly, it shows that DC discourse around whether and how firms can create and sustain competitive advantages in increasingly changing environments has been empowered by instances of oppositional resistance in DC scholarship. It should be emphasized that this thesis offers for the first time a poststructuralist Foucauldian approach to DC discourse. The governmentality analysis provides a starting point for researchers interested in critically investigating the managerialism of DC discourse.

To sum up, even though the three approaches clearly contrast with the mainstream view, together, they contribute to invigorate key debates within DC scholarship (namely around the nature and microfoundations of DC, and the link between DC and competitive and sustained advantage), and to start new discussions (namely around the managerialism of DC discourse).

### **Methodological implications**

While the contribution of the thesis is fundamentally made at a theoretical level, it also draws upon the proposed practice, process and critical approaches in order to suggest how to investigate DC empirically. To this purpose, Table 6.3 describes the main methodological implications for empirical investigation in respect to each approach developed in this thesis.

<b>Approach/view</b>	<b>Methodological implications</b>
Process	Qualitative research. Mixed methods that combine archival and historical data (documents, texts, etc.) with interviews and real-time field observations. Single case or multiple case studies.  <b>ANT:</b> Investigating DC as interactional effects of heterogeneous networks requires researchers to focus on the connections and associations of all human and nonhuman actors that are put together in action to generate strategic change. Researchers must follow the actors, commit themselves with the principles of generalized symmetry and material heterogeneity, and



Approach/view	Methodological implications
	<p>start with a blank sheet, i.e., without presuming the shape of DC or assuming a priori deterministic relationships.</p> <p><b>Organizational sensemaking:</b> Exploring how DC unfold over time through processes of sensemaking toward strategic change requires methods such as conversation analysis, discourse analysis and microethnography.</p>
Practice	<p>Qualitative research. Ethnography that includes a combination of participant observation, recording or video-taping of interactions among participants, face-to-face interviewing and analysis of material artifacts (documentary and other archival data). Single case or multiple case studies. Longitudinal studies.</p> <p><b>Activity theory framework for effective SE:</b> Researchers should select the exploration and exploitation interconnected and interdependent activity systems as the unit of analysis. While they will have to identify the nodes of each activity system (its object, subjects, community, tools, rules/culture and organizational structures), the focus should be on activity systems' interaction and integration. The main interest should be on the tensions between the two paradoxical activity systems (quaternary contradictions), how they are activated or aggravated by other levels of contradictions within and between activity systems, how they are collectively resolved, and what are the respective outcomes. Case selection may encompass either nascent companies or more established ones, since the framework applies to both types.</p>
Critical	<p>Qualitative research. Semi-structured interviews and questionnaires focused on the governmentality and power effects of DC discourse in practice. Critical discourse analysis.</p> <p><b>Governmentality analysis:</b> From an empirical perspective, researchers should examine to what extent firms and individuals are actually governed by mainstream academic DC discourse across countries or regions (e.g., US vs. Europe), industries or markets (e.g., highly dynamic vs. moderately dynamic) and types of firms (e.g., multinational enterprises vs. nascent companies).</p>

**Table 6.3.** Summary of methodological implications

### **Bringing process, practice and critical approaches together**

While each approach developed makes specific contributions to DC scholarship, they also complement one another. The process-oriented view interprets DC as outcomes of processes of ordering and organizing (such as organizational sensemaking or networking of heterogeneous materials), emphasizing the ongoing, emergent, immanent and dynamic nature of DC. Even though organizational sensemaking or heterogeneous networking are also social processes, the focus of the process-oriented view is to understand DC as a *becoming* phenomenon, not the social practices in which individual actors are embedded, their doings and everyday actions that make DC a socially constructed phenomenon. That is the focus of the practice-based approach, that frames effective strategic entrepreneurship as a social practice from which DC emerge and develop. Yet, the practice-based approach complements the process-oriented view by “recogniz[ing] the centrality of people’s

actions to organizational outcomes and reflect[ing] an increasing recognition of the importance of practices in the ongoing operations of organizations” (Feldman and Orlikowski, 2011, p. 1240). Moreover, the practice-based approach is also process-oriented. Because the tensions and contradictions within and between the exploration and exploitation activity systems are always evolving, leading individuals to be constantly learning how to best combine both activity systems, from a practice perspective, DC may also be interpreted as being themselves in a constant state of flux, perpetually changing. Actually, as Chia and Nayak (2017) assert, “The idea of a socially constructed reality only makes real sense in the context of an ontology of *Becoming*” (p. 133). The CHAT lens adopted, however, is absent about issues of power and power relations. The critical perspective of DC, that builds upon a poststructuralist Foucauldian approach to power, by focusing on the power/knowledge relations and the associated subjectivities that are embedded in the managerialism of mainstream academic DC discourse, complements the practice-based approach.

### **6.3 Contributions to practice**

Besides its theoretical contributions, I believe that the thesis also encourages practitioners involved in strategic change to be reflexive about three important things.

Firstly, it highlights that firms are not born with DC, and that DC are not something fixed or stable (that is ‘out there’ to deal with changing environments), but rather a temporally evolving phenomenon that both shapes and is shaped by change. The construction (or termination) of DC is a dynamic and ever flowing process, which is intrinsically linked to processes of ordering and organizing. As such, practitioners should be aware that the way such processes take place – e.g., how they make sense of strategic events and experiences, or how their competences, capabilities and other objects are put together in action to generate strategic change – will influence how DC unfold over time.

Secondly, it is argued that DC are not something that firms have (DC as possession) but rather something that firms, seen as collectives of individuals, do (DC as practice). More specifically, practitioners should understand that DC originate in practical social accomplishments, that involve not only managerial decision making but also daily, micro and ordinary practices of multiple individuals within and around the organization. In addition, practitioners should learn how to cope with the tensions and contradictions within and between the exploration and exploitation activity systems, as the emergence and development of DC depend on effectively integrating both.

Thirdly, it emphasises that, in order to be seen as legitimate ‘dynamic subjects’, capable of leading firms to achieve success (rather than failure), practitioners (particularly managers) need to work on a self that is entrepreneurial, strategic, leader, socially active, cognitively capable, educated

and experienced. While practitioners should be reflexive about what it means to be a 'dynamic subject', they should also be aware of the potential implications and risks of adopting a different conduct. More specifically, those practitioners who are not aligned with the discourse and practices of DC (particularly managers) may be seen as individuals that are not capable of contributing to organizational success, thus risking to put themselves in a position of 'incapacitated' actors rather than 'empowered' ones. In turn, firms committed to the DC discourse and practices, and willing to effectively deal with increasingly changing environments, will not be interested in hiring or promoting practitioners 'incapable' of creating and maintaining organizational DC leading to successful firms.

## 6.4 Limitations and future research agenda

In what follows I consider the potential shortcomings of each approach developed, and suggest future research agenda to address these limitations.

Approaching DC from a process style of thinking is challenging because the emergent, immanent, dynamic and interactional nature of DC is not easy to observe and capture. It is hard to provide theoretical interpretations about DC as a *becoming* phenomenon that reach beyond description and representational attempts. Furthermore, demonstrating that DC unfold as processes of ordering and organizing take place is highly problematic. More specifically, because we are not dealing with cause-effect relationships but rather with dynamic, ongoing and interactional ones, it becomes more difficult to demonstrate the link between successful (or failed) sensemaking and the construction (or termination) of DC. For the same reason, it becomes harder to prove that DC are constructed (or terminated) as new connections and associations between humans and nonhumans are created, while others are abandoned, replaced or modified. This is perhaps the main limitation of the approach developed: to theoretically demonstrate the links between processes of ordering and organizing and the unfolding of DC over time. Yet, the fact that it is hard to be theoretically demonstrated, also does not prove that DC is not a *becoming* phenomenon. To address this issue, future research agenda would benefit from empirical investigation. To empirically investigate DC as effects of processes of ordering and organizing, scholars need to abstract from the traditional boundaries between individuals, organization and environment, acknowledging that they "are all in constant and mutually interacting flux" (Langley et al., 2013, p. 5). They have to focus on the interactions, connections and associations that are implicated in the processes of ordering and organizing, while observing the series of strategy-related events and experiences, in order to grasp how strategic change and DC are enacted in practice.

From an activity theory perspective, each time the objects of activities expand (new opportunities or new advantages), firms need to learn novel ways to best integrate the two contradictory activity systems, and find a new appropriate balance between exploration and exploitation. The theory advanced is that the tensions and contradictions within and between the two interacting activity systems are just starting points, as they represent learning opportunities for effective SE to take place, and for DC to emerge and develop. However, at this stage, the theory advanced does not elaborate sufficiently on how these learning mechanisms occur along effective SE practices, and the knowledge base that it generates as a consequence. This is one limitation of the practice-based approach developed. Future theoretical and empirical research could draw upon the proposed activity theory framework to explore the knowledge base and learning processes associated with firms' efforts to best combine the two contradictory activity systems over time. Two other shortcomings are directly related with the use of third-generation CHAT. According to Engeström (2009), the expansion of the unit of analysis from one activity system to multiple activity systems has opened up new opportunities for the study of power relations and emotional experiences in organizational settings. However, the present activity theoretical framework for effective SE does not consider the role of emotions in individual and collective search efforts for effectively integrating the two activity systems, neither whether and how potential power-labour contradictions between exploration and exploitation activity systems may impact and shape the constitution of DC. These are open questions to be addressed in future research agenda.

The critical perspective is grounded on a governmentality study which offers a brief historical background of the mainstream academic DC discourse. It is referred that the unsatisfactory responses provided by previous approaches on how firms can create and sustain competitive advantages in increasingly changing environments has made possible an academic DC discourse to emerge. The brief historical background provided does not, however, fully describe the genealogy of DC discourse. In a Foucauldian sense, a genealogical analysis is a way of understanding the historical conditions that made a discourse to be constituted and developed (Knights and Morgan, 1991). While the absence of a comprehensive genealogical analysis of DC discourse may be considered a limitation of the present critical perspective, it is also an opportunity for future research. Another limitation of the governmentality analysis has to do with its own theoretical nature. Being focused on DC theorizing, it does not empirically examine how and to what extent firms and individuals are actually governed by mainstream academic DC discourse, namely the potential differences in the governmental rationality namely across countries or regions (e.g., US vs. Europe), industries or markets (e.g., highly dynamic vs. moderately dynamic) and types of companies (e.g., multinational enterprises vs. nascent companies). In future research, it would be interesting to complement the present governmentality analysis with such empirical investigation.

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