DYNAMIC CAPABILITY: TRACKING THE DEVELOPMENT OF A CONCEPT

Jason Ferdinand[a]
Manuel Graca[b]
Elena Antonacopoulou[c]
Mark Easterby-Smith[d]

[a,c]GNOSIS, University of Liverpool, UK
[a] j.m.ferdinand@liv.ac.uk
[c] e.antonacopoulou@liv.ac.uk

[b,d]Management School, Lancaster University, UK
[b] m.graca@lancaster.ac.uk
[d] m.easterby-smith@lancaster.ac.uk

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Abstract

This paper critically reviews the emergence of the concept of ‘dynamic capability’ from an organizational learning perspective. Seen frequently as a response to the question of how and why some firms appear to create and sustain competitive advantage, dynamic capability, unlike Porter’s competitive forces model, suggests that intangible assets, including the knowledge and skills of the workforce, can be reconfigured into routines to create responsive capabilities. Dynamic capability offer a bridge between debates in the strategy field propounding a resource-based view of the firm and the emerging discourse surrounding the knowledge economy. Despite shifting attention towards a learning and knowledge-based perspective the dynamic capability approach currently has important limitations. This paper provides a thorough overview of the literature and points to the current limitations of the concept of dynamic capability highlighting in particular how the nature of knowledge is evaded in current debates. Therefore, this paper contributes to the debate surrounding dynamic capability in two main areas. Firstly by highlighting the potential of recent developments in organizational learning theory to unpack the knowledge ‘black box’ that is left out by the dynamic capability perspective. Secondly, as a result of the above, the presentation of knowledge as an ‘intangible asset’ or a ‘commodity’ is reconsidered.

Keywords: Dynamic Capability Intangible assets, Organizational Learning.

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Jason Ferdinand
GNOSIS, University of Liverpool

Manuel Graca
Lancaster University

Elena Antonacopoulou
GNOSIS, University of Liverpool

Mark Easterby-Smith
Lancaster University

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Introduction

Observers of the strategic management literature have recently witnessed the emergence of 'dynamic capability' as a concept that promises to answer the question of how some organizations appear to secure competitive advantage in dynamic markets. This paper critically reviews the emergence of the concept from an organizational learning perspective to demonstrate both the potential benefits and problems associated with its' current usage. Dynamic capability, defined as "the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments" (Teece, Pisano and Shuen, 1997: 516), suggests that intangible assets, including the knowledge and skills of the workforce, can be reconfigured into routines to create capabilities responsive to the ambiguous and unpredictable forces of the business environment. We argue that advocates of dynamic capability seek to connect the resource-based view of the firm to the emerging discourse surrounding the knowledge economy in a manner that effectively 'black boxes' learning and knowledge, thereby completely eliding the complex relationship between learning, practice and activity.

After tracing the roots of the dynamic capabilities concept in the strategic management literature, and discussing its limitations, we highlight the potential of recent developments in organizational learning theory (Easterby-Smith et al., 2000) to unpack the knowledge 'black box' that is left out by the dynamic capabilities perspective. This is undertaken as a result of Zollo and Winter's (2002) argument, drawing on Cyert and March's (1963) behavioural view of organizational learning, that dynamic capabilities can be learnt. We argue that if this is so, then other views of organizational learning could contribute to a reconceptualization of the dynamic capabilities concept, including the cognitive view (Argyris and Schon, 1978; Weick, 1995) and, in particular, the situated approach (Brown and Duguid 1991; Lave and Wenger 1991; Hutchins 1993), with its emphasis on praxis and formative contexts.

As a result of the above, the presentation of knowledge as an 'intangible asset' or a 'commodity' is then reconsidered. Through an examination of the economic theory dynamic capability rests upon, this paper repositions knowledge as a 'fictitious commodity' (Jessop, 2002), thereby encouraging subsequent investigation of those factors that generate a commodity form through social reorganization (Schiller, 1988) required to create knowledge that can be sold. Although beyond the scope of this paper, thorough exploration of these factors is facilitated by the implications of the analysis presented at a theoretical level here.

The analysis and critique of the concept of ‘dynamic capability’ is presented firstly by placing the discussion in the wider context of debates which have been concerned with the ways in which organizations can secure competitive advantage, a theme which lies at the core of the concept. The way the concept has emerged is then discussed in relation to existing conceptualizations of distinctive qualities of organizations otherwise referred to as ‘competencies’ characterized as ‘core’, ‘distinctive’ or simply ‘best practices’. The common emphasis on the resource-based view is being put to question in the section, which follows which seeks to rethink dynamic capability from a learning perspective. In this section we seek to outline some of the main insights organizational learning literature provides which could illuminate the way capability is understood to develop as well as ways in which dynamism can be fostered. The critique of the dynamic capability concept in relation to organizational learning concludes by highlighting the attractiveness of this concept to capitalist organizations and in relation to the dominant economic logic that underpins organizational practices. The main implications of this critical analysis of the idea of dynamic capability for research which seeks to capture organizational resources such as knowledge are discussed at the end of the paper in relation to a clearer distinction between views of knowledge as a commodity versus knowledge as an intangible asset.

Securing competitive advantage

The question as to how competitive advantage can be achieved and sustained dominates the strategic management field, and has produced an array of potential answers, as indicated by Mintzberg et al. (1998) identification of five different definitions of strategy emerging from ten schools of thought (Levy, Alvesson et al. 2003). Here we concentrate on arguably the three leading positions, briefly outlining Porter’s competitive forces model (Porter 1979; Porter 1980) and Shapiro’s (1989) strategic conflict approach , before engaging directly with the emerging resource-based view (Wernerfelt 1984).

Porter’s (1980) competitive forces model, which was the most influential paradigm in the eighties, provided an outside-in answer: a firm’s competitive strategy is dependent on the industry structure in which it operates. Consequently, the so-called five industry-level forces (entry barriers, threat of substitution, bargaining power of buyers, bargaining power of suppliers, and rivalry among firms) determine the nature of competitive rules and firms’ strategic choices. Initially Porter (1980) suggests how to secure above-normal profit in less than competitive market segments, through economic analysis of market failures. This rather limited outside-in perspective was subsequently expanded by Porter (1985) through an attempt to explain how a firm might intentionally build market barrier to deter competition, a position that some authors (Levy, Alvesson et al. 2003) have argued resonates with the strategic conflict and resource-based views discussed below.

Drawing on game theory, the strategic conflict approach (Shapiro 1989) suggests that competitive advantage can be achieved by manipulating the market environment, namely through strategic investments, pricing strategies, and control of information. Although this approach can be of interest in the short-term to keep competitors off balance, it is of little value in scenarios of rapid technological change and highly dynamic markets, and indeed can be seen as a distraction in the search for long-term, more enduring sources of competitive advantage.

The resource-based view of the firm provides a radically different answer to the question. Drawing on Penrose's (1959) notion of firms as collections of physical, human, and intangible resources, it rejects Porter's market determinism and suggests instead an inside-out approach where competitive advantage is intimately linked to a firm's idiosyncratic and difficult to imitate resources. By emphasising the decisive role of unique internal resources in a firm's performance, it also challenges the short-term strategic moves and Machiavellian tricks of the strategic conflict approach. The resource-based view conceives the firm as a bundle of resources, a firm's performance being ultimately dependent on meeting the so-called VRIN conditions: in order to deliver competitive advantage to the firm (at both product and process levels), resources need to be valuable, rare, inimitable or imperfectly imitable, and non-substitutable (Barney 1991). Moreover, it has been suggested that resources lead to higher profits when they are captured by the firm rather than dependent on suppliers (Rumelt 1984; Wernerfelt 1984; Barney 1991; Peteraf 1993). Such resources have been termed 'routines' (Nelson and Winter 1982), 'core competences' (Prahalad and Hamel 1990) and 'core skills' (Klein, Edge et al. 1991), all of which seek to establish a direct link between the endogenous characteristics of a firm (especially in what relates to its product and innovation portfolio) and its competitive performance. Although it shifts the focus of strategy to firms' internal characteristics, by identifying its unique resources at a certain point in time and how these may have been created, the resource-based view can be regarded as a static theory (Priem and Butler 2001) because it fails to address the fundamental issue as to how future resources can be created. The resource-based view, like Porter's competitive forces model, therefore could not account for competitive advantage in highly dynamic markets.

This issue is especially important when an organisation operates in rapidly changing environments and therefore needs to renew or change its resource mix. It has also been pointed out that the resource-based view applies to the individual firm (or strategic business unit) level rather than to the corporate level, in which there could exist more than one line of business (Bowman and Ambrosini 2003). In short, the resource-based view of the firm required further theorization to address competitive advantage in a dynamic fashion, as well as corporate-level concerns, even within its own perameters and underpinning assumptions.

The emergence of dynamic capability

This is the scenario from which the dynamic capabilities framework emerges, a concept that is developed on the assumption that "competences can provide competitive advantage and generate rents only if they are based on a collection of routines, skills, and complementary assets that are difficult to imitate" (Teece et al, 1997, p. 524), and hence distinctive. The distinction between 'competencies' and 'capabilities' follows Collis (Collis 1994), allowing us to shift attention to the latter's ability to integrating and mobilize the former so as to achieve competitive advantage. Thus, in addition to the resource-based view, there is a concern here with dynamism, in seeking to address how competences are renewed over time so as to provide innovative responses to market changes. It can thus be said that the dynamic capabilities approach is an evolutionary version of the resource-based view of the firm, in that it is an inside-out approach, yet accepts the influence of outside events, thereby to some extent incorporating Porter's (1980) strategic determinism.

Recent developments (Eisenhardt and Martin 2000) suggest an important reframing of the dynamic capabilities concept through challenging some of the basic resource-based view assumptions. Firstly, although idiosyncratic to a firm, they are said to exhibit commonalities across firms, therefore allowing developing 'best practice' recommendations as to how to imitate and diffuse them, contradicting the resource-based view assumption that there is persistent heterogeneity across firms (Rumelt, 1991). Secondly, despite being path dependent in their evolution, they can be developed by different firms from different points and along different paths. Finally, dynamic capabilities are necessary but not sufficient in themselves in order to achieve long-term competitive advantage, which lies rather in the resource configurations built through the use of dynamic capabilities. Moreover, long-term competitive advantage is said not to be frequent in dynamic markets, in which competition evolves around a series of temporary advantages. Also in opposition to the resource-based view, there is in these two major accounts of the approach no clear distinction between corporate level and strategic business unit level capabilities (Bowman and Ambrosini, 2003).

Besides challenging some of the basic tenants of the resource-based view of the firm, the dynamic capabilities approach also connects to the emerging discourse surrounding the knowledge economy, and in particular to the knowledge-based view of the firm (Nelson and Winter 1982; Nonaka and Takeuchi 1995). This arguably represents an outgrowth from the resource-based view through suggesting the reconceptualisation of the firm as a knowledge architecture (Henderson and Clark 1990), where organizations as presented as knowledge repositories, knowledge being stored and memorized in organizational routines embedded in techno-administrative systems (Nelson and Winter, 1982).

The link between dynamic capabilities and the knowledge-based view derives from the perceived influence of knowledge-based factors and organizational learning processes for renewing competences. Since dynamic capabilities are idiosyncratic to a firm, it is acknowledged that they may be based on tacit know-how, hence the connection to Nonaka and Takeuchi's (1995) model of knowledge creation. In addition to that, from the resource-based view comes the notion that "resource endowments are 'sticky': at least in the short run, implying that firms are to some degree stuck with what they have and may have to live with what they lack" (Teece, Pisano and Shuen, 1997: 514), which suggests path dependency where the set of existing competences and capabilities enable or constrain the necessary renewal process. This resonates with Leonard-Barton's (1992) notion of institutionalized, taken-for-granted capabilities as 'core rigidities', and relates to Hedberg's (1981) discussion of the difficulty involved in 'unlearning'.

We can therefore argue that the dynamic capabilities approach is already intrinsically linked to, or in effect seeks to bridge, resource-based and knowledge-based views of the firm. These connections present important implications regarding the concept of knowledge. In fact, the resource-based view establishes the formation and deployment of organizational knowledge as a central theoretical concern, yet it encourages a content theory of knowledge portraying it as an objective, discrete variable, and emphasizing its functional value. Hence, the analysis of organizational knowledge is both the principal strength and weakness of the approach (Scarbrough, 1998). Likewise, the knowledge-based view has been criticized for tending to assume that knowledge can be framed in static categories, with its models appearing to be formistic and based on Weberian ideal types (Spender 1996; Tsoukas 1996). As a result, the transformation process behind those knowledge categories is not explained. Nonaka and Takeuchi's (1995) interaction between tacit and explicit knowledge as a kind of black box illustrates this point. Hence, not surprisingly, the way the dynamic capabilities approach has been presented reveals a similar view of the knowledge concept. For example, in Teece, Pisano and Shuen's (1997) landmark paper, knowledge is presented as a special resource from which distinctive organizational competences can be developed, especially if they involve tacit, difficult to imitate knowledge. Thus, knowledge emerges here as an objective intangible asset that ultimately is linked to competitive performance.

This functionalist, instrumental view of knowledge can be said to epitomize the managerialist epistemology, in which possession dominates over practice. Thus, following Scarbrough (1998), in their attempts to open up the black box of organisation-environment interchanges, these conceptualisations end up leaving the learning and knowledge box largely unpacked.

Rethinking Dynamic Capabilities from a Learning Perspective: Micro strategizing and practice-based thinking

The relationship between learning, knowledge and dynamic capability has been explored by Penrose (1959), and before that, by Hayek (1945). However, it is the Mahoney's (1995), and Zollo and Winter's (2002) more recently which have developed explicit linkages between learning, knowledge and dynamic capability. If we start first with Mahoney's work, it is evident that he draws on two major traditions: the work of Senge (1990), and an earlier tradition which started with the collaboration of Cyert and March (1963). Cyert and March were the first to propose that an organization might be able to learn in ways that were distinct from the accumulated learning of individual members. They built their views on a model of decision-making within the firm which emphasizes the role of rules, procedures and routines in response to external shocks, and which are more or less likely to be adopted according to whether or not they lead to positive consequences for the organization. In particular they suggest that it is through 'organizational learning processes (that) … the firm adapts to its environment'. (1963, p. 84); the view that 'the firm learns from its experience' (1963, p. 100), and 'An organization …changes its behaviour in response to short-run feedback from the environment according to some fairly well-defined rules. It changes rules in response to longer-run feedback according to some more general rules, and so on' (1963, p. 101/2).

This idea of organizational routines, which change in response to environmental circumstances, dominated the early literature on organizational learning and it is one of the major influences that Mahoney picks up. It is also close to the idea of (Teece, Pisano et al. 1997) that dynamic capabilities involve the adaptation of organizational competencies in relation to external change. Essentially it is a behavioural view of organizational learning which reflects, not surprisingly, back to the title of Cyert and March's book. The second influence on Mahoney's work is from Peter Senge, which in turn draws significantly on the theories of Argyris and Schön (1978). These models also include the idea of learning through experience through the detection and correction of errors, but greater emphasis is also placed on the way that information and knowledge can be acquired and interpreted which both contributes to change of, and is limited by, the mental models held individually and collectively by members of the organization. Although this might be seen as a simplification, the second tradition contains the core of a cognitive view of organizational learning.

Both of these behavioural and cognitive aspects are evident in the work of (Zollo and Winter 2002), and recent work that demonstrate an appreciation of the cognitive models or frames of cognition that influence managers' perceptions of their trading environment (El Sawy and Pauchant 1988). For example, Zollo and Winter (2002) suggest that:

> 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 (2002, p.340).

In some respects their work offers elements additional to the models proposed by Mahoney and Teece et al. (1997). The key additional points here are (a) that dynamic capabilities are relevant at all times, not just when reacting to dramatic changes in the business environment and (b) that they focus on the operating routines in an organization, rather than on vague and generic competencies, and (c) that they result from a learning process.

Although the papers that we have discussed above all seem to be following some well-established traditions in the field of organizational learning they seem to be operating in relative ignorance of some of the more recent developments in the field of organizational learning per se. These recent additions take more of a socio-cultural perspective and suggest, for example, that learning takes place through social processes rather that through the acquisition and dissemination of information. Key authors in this tradition include Cook and Yanow (1993) and Whipp et al (1989), who suggest that knowledge and learning is closely linked to local systems of meaning and shared experiences. This repositions strategy as a process, where increasing interest is placed on the contextual influences on learning, demonstrating that as such knowledge cannot move easily from context to context.

What this focus on contextual influence leads to is a greater appreciation of the situated nature of learning, particularly in association with the practices people experience. This idea of learning being situated around practices has profound implications for the notion of dynamic capabilities as it shifts the focus of strategizing from the macro issues to the micro aspects..

The practice-based approach to organizational learning emphases micro dynamics embedded in human action and interaction. Therefore, attention is given to activities of all kinds, the role of language and other cultural and material artefacts (Gherardi 2000), the nature of social interactions (Lave and Wenger 1991)and not least the tacit, situated and almost instinctive responses of actors in the socially networked worlds in which they live (Hutchins 1993). These latter perspectives are of course not restricted to the strategy or organization learning fields. Instead, they reflect what Schatzki et al (2001) discuss as the practice turn in contemporary theory, a point which has been supported much earlier by De Certeau (1984), Bourdieu, (1990) Turner (1994), and others. Such a rich variety of approaches and perspectives enables a more informed understanding of strategic practice by focusing on the learning aspects, as well as, the socio-political dynamics that underpin capability development, itself a strategizing practice.

One of the most curious insights developed from a review of the strategic management literature was that recent debate has been based around vibrant practice-based thinking in the strategy literature (Hendry 2000; Johnson, Melin et al. 2003). Although strategists are recognizing the importance of social and political factors as influencing decision making, they appear not to recognize that such factors influence learning and knowledge construction.

As Blackler (1995) has pointed out, rather than talking of knowledge as something people have (be it tacit or explicit), that organizations may harness as a commodity that enhances and transforms other commodities, what needs to be explained is how knowing is achieved in the course of practice. Hence, practice-based approaches to the study of knowing and learning are especially urgent in this context and may ultimately radically transform the dynamic capabilities concept.

The attractiveness of Dynamic Capability for contemporary capitalist organizations

The attractiveness of the dynamic capability concept stems from its' potential to connect the resource-based view of the firm with the emerging knowledge economy discourse prevalent in contemporary debate. It appears to offer a means of realizing Mahoney's (1995) belief that "economics based research (the management of resources) and research on organizational learning (the resources of management) need to be joined in the next generation of resource-based research" (1995, p. 91). However, the potential to actually achieve this relies upon the development of the concept from a firm base. As strategic concerns are increasingly treated as virtually synonymous with economics, we argue that the economic basis of the dynamic capability concept requires particularly close attention. This connects with our earlier critique at the level of basic assumptions. By introducing a brief reading of economics we hope to demonstrate that the dynamic capability approach not only glosses over significant issues regarding the nature of learning and knowledge in organizations, but as a result of an ignorance of socio-political issues it may also be presented as the solution to the core economic problem of how to secure competitive advantage in dynamic markets, when it actually may not be.

The economic issue at hand and the economic base of dynamic capability

When we attempt to explain the behaviour of organizations in economic exchange markets the issue of coordination arises as a result of change (Hayek 1945). If markets and firms were static then price systems could coordinate consumers and producers to create ideal markets, but this is not the case in contemporary trading environments. Today we find ourselves in western market capitalist societies in the situation where changes occur at what appear to be an ever increase pace. Managers are charged with the task of securing 'rent'1 by attempting to coordinate activity on the basis of information available about the market changes, and as Simon (1993) long since noted, this information is likely to be subjective and incomplete.

The origin of the concept has been associated with land, hence it is occasionally referred to as ground rents (Rutherford, Donald, Dictionary of Economics (Routledge: London, 1992), p. 137). As land was regarded in classic economics as the only fixed factor of production, it alone earned rent. However, as any factor of production can be fixed in supply, 'rent' can be earned by any factor of production. Popular examples of factors with an inelasticity of supply abound; labor can earn economic rent as persons with rare talents (e.g. opera singers and top sports players) have high earnings largely consisting of economic rent.

Teece and Coleman (1998, pp. 819-822) identify three types of rent may be secured if the manager is able to take advantage of change, monopolistic (Porterian), composite quasi-rent (Ricardian), or entrepreneurial rent (Schumpeterian) (cf. Coleman and Teece (1998) for an engaging discussion of these different forms of rent). Put very briefly the monopolistic rent,

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[1] Here we follow the resource-based view of rent as "return in excess of a resource owner's alternative use cost" (Mahoney, 1995, p. 91).

which “stems from the naked exercise of market power by a firm (or firms)” (1998, p. 822), is highly unlikely as organizations rarely if ever truly operate as monopolies, but composite quasi-rent and entrepreneurial rent, as discussed below, may be achieved if dynamic capabilities truly exist and organizations can learn how to develop them.

Composite quasi-rents may be understood as “the difference between the first-best and second-best use value of a resource” (Klein, Crawford, and Alchian, 1978) which are, according to the dynamic capability perspective, appropriable from idiosyncratic physical capital, human capital and dedicated assets. As such these firm-specific assets are regarded as massively important in a modern industrial economy (Mahoney, 1992c, 1995; Williamson, 1985).

If composite quasi-rent is the outcome of co-specialized resources and capabilities, as Mahoney (1995) suggests, then a core concern becomes the theorization and empirical identification of composite quasi-rent achievement in a market. This focuses attention on the co-specialized assets (Robins, 1992a; Teece, 1990) deployed and the means by which these co-specialized assets are acquired and organized. Teece and Coleman (1998) clarify the importance of co-specialized assets from the dynamic capability view by stressing that composite quasi-rent achievement occurs “where knowledge and other assets underpin a firm's competitive advantage” (1998, p. 819). Consequently if dynamic capabilities are the coordinating factors for successful composite quasi-rent achievement then this concept has obvious benefits.

Similarly if entrepreneurial rent, the result of developing the individual and collective capacities to engage in permanent innovation - whether in sourcing, technologies, products, organization or marketing (Jessop, 2002, p. 121-2), could be secured through dynamic capability then the ability to develop such capability would be most sought after. If we are to believe Teece et al’s (1997) conviction that composite quasi-rent and monopolistic rent will be eventually competed away, the remaining entrepreneurial rent secured by dynamic capabilities will be the distinctive means of securing competitive advantage in the future.

Understood in these terms dynamic capability appears to be a well placed, and timely concept that is likely to secure a long interest and determined empirical investigation. However, we argue that this is actually not the case for the following reason. Achieving both composite quasi-rent and entrepreneurial rent rely upon knowledge as an organizational, albeit intangible, asset.

Why knowledge is not an asset nor a commodity

In order to understand why knowledge is not an asset nor a commodity we need to clarify some terminology adopted by the resource-based view of the firm, the knowledge-based view of the firm, and dynamic capability advocates. The first term widely used is that of a resource. Following Schiller (1988) we argue that a resource is something of actual or potential use. This can be demonstrated if we consider knowledge as a resource where, for example, an individual has knowledge of Spanish. If this person never encountered Spanish speakers, nor Spanish text, then this resource would be unproductive and of little actual use. However, once this person incorporates this knowledge with labour, perhaps as a school teacher, then the potential use is realized in association with individual activity. What we need to keep in mind here is that the individual's knowledge of Spanish is not in itself exceptional nor scarce but an intellectual commons socially created through interactions.

This markedly differs from an asset, which may be considered as something that can be owned. In the case of knowledge assets observers note that knowledge is different from other resources (Glazer 1991; Day and Wendler 1998) because the same information and knowledge can be used by different economic entities at the same time and is therefore not owned by any individual economic entity.

Not only can knowledge be used by different economic entities at the same time but it can be used for economically non-productive activity. This introduces a parallel to Marx's (1976) argument regarding productive and non-productive labour. Marx argues that:

For labour to be designated productive…qualities are required which are utterly unconnected with the specific content of the labour, with its particular utility or the use value in which it is objectified. Hence labour with the same content can be either productive or unproductive (1976, p. 1044, original emphasis).

Marx demonstrates this through the example of a schoolmaster, an example that we may also employ, in association with our prior example of the individual with knowledge of Spanish, to demonstrate that knowledge may be both productive and non-productive:

A schoolmaster who instructs others is not a productive worker. But a schoolmaster who works for wages in an institution along with others, using his own labour to increase the money of the entrepreneur who owns the knowledge-mongering institution, is a productive worker (Marx, 1976, p. 1044)

Thus the distinguishing characteristic of both productive labour and productive knowledge is the actual use such resources are put to, neither of which can be accurately described as being owned by an organization. Such a distinction is effectively elided by resource-based and knowledge based theorists because resources are viewed as assets to be put to productive labour in order to acquire rent. As the previous discussion clearly demonstrates, knowledge and information are distinctly different yet conflated in the strategic management literature. Information may be stored, codified in routines, or even placed on a shelf and ignored if bound in a book. Whereas knowledge is intimately related to actual practice and labour, and as such cannot be captured but rather has to be transformed into information of a highly subjective nature and perhaps activity.

In order to transform resources into assets owned and ultimately to commodities exchanged the resource has to be commodified, it has to take on the commodity form. Some authors believe that this transformation has already occurred and that knowledge is “a critical commodity” (Saint-Onge and Wallace 2003), but to understand this potential transformation we need to consider the requirements for a general system of commodity production and exchange. Here we can follow Prichard (2001) in noting that generalized commodity production requires enforceable property rights, to enable the identification and protection of assets, and ‘market subjectivities’. These market subjectivities are described by Prichard (2001) as including legal and institutional practices and a raft of behavioural processes including state sponsored education. In such market capitalist societies organizations seek to accumulate rent through the ability to realize an expanded amount of money through the production, distribution and exchange processes (Harvey 1982; Sayer 1995; Marginson 1997; Hodgson 1999; Jessop 2002).

In the case of knowledge we have a collectively generated resource reliant upon intellectual commons (Dawson, 1998, p. 281), which may be used by numerous economic entities simultaneously, or which may be tacit and unarticulated. This has not protected knowledge from concerted attempts to apply the commodity form. For example, Jessop (2002) identifies the primitive accumulation of capital, in the form of intellectual property or knowledge assets, through “the private expropriation of collectively produced knowledge” (2002, p. 130). Jessop (2002, p. 130-1) demonstrates this is three areas (i) in the transformation, without recompense, of indigenous knowledge and culture by commercial enterprize (Frow 1996; Coombe 1998); (ii) the divorce of intellectual labour from the means of production by creating expert systems and smart machines (Robins and Webster 1987); and (iii) the extension of copyright and property rights resulting in the erosion of public interest (Frow, 1996, p. 104).

Consequently we can argue that the dynamic capability concept is a further example of capitalist attempts to apply the commodity form to resources, an attempt that requires the concerted efforts of numerous actors to transform a dynamic collective resource into a productive commodity. This raises the issue of our own practice as social scientists, for in order to appropriate the tacit, practical knowledge of specific organizational members through the dynamic capability concept, we must expropriate collectively produced knowledge without recompense. This empirical research based appropriation can already be seen, for example, where dynamic capabilities have been attributed to be the cause of diffusion of knowledge in the biotechnology industry through interfirm alliances (Madhok and Osegowitsch 2000). Similarly, Luo (2000) examines dynamic capability in international expansion, Möller et al (2002) explore the implications of dynamic capability in network management and Wheeler (2002) examines the creation of customer value through Net-enablement. What all of these studies demonstrate is the central capitalist focus on securing rent by transforming resources into commodities.

This analysis raises a number of important research implications for researchers seeking to understand the dynamics of the micro practices and in particular the knowledge dynamics that underpin capability development. It is clearly essential that researchers exercise 'critical reflexivity'(see Antonacopoulou, 2004) in the way they seek to learn and change their perspectives and assumptions about knowing and learning in organizations. In doing so, researchers studying micro practices and capability development need to be better sensitized to the epistemological and ontological assumptions about the phenomena that they seek to study. Perhaps though most importantly, researchers need to be sensitized further to the need for new methodological tools for studying dynamic fluidity in processes and practices. Currently, our repertoire of research methods does not fully cater for the increasing difficulty experienced in capturing discontinuity, interconnectivity and complexity and it is here perhaps that moving beyond the economic logic underpinning our understanding of organizing may well provide a useful platform for reflecting on the way knowledge and learning in relation to managing and organizing are conceptualized and studied. Developments in these directions will have a major impact in the way we can afford to truly talk of *dynamic* capability.

Conclusions

The implication of the analysis presented here is that dynamic capability attempts to fills a intellectual market niche, resultant from market capitalist organizations' desire to appropriate different forms of rent. Emerging from the resource-based view of the firm, the introduction of the dynamic capability concept follows the economic logic that as organizations understand ways of securing monopolistic and composite quasi-rent market competition will reduce the ability of any particular organization to gain competititive advantage. By introducing knowledge and learning the concept draws upon Schumpeterian economic theory (Schumpeter 1934), where entrepreneurial rent may be achieved through innovative activity, to present an explanation of organizational distinctiveness in response to market changes.

By viewing the dynamic capability literature from an organizational learning perspective we have demonstrated three major issues arising from its current conceptualization. First that dynamic capability proponents, perhaps unknowingly, conflate knowledge with information. One important outcome of this conflation is the treatment of knowledge as some 'thing', thereby placing any consideration of the dynamics of socially constructed and construed learning and knowledge sharing processes off the research agenda.

Secondly by drawing a clear distinction between resources, assets, and commodities we demonstrate that knowledge is currently uncritically treated as an organizational asset or commodity when it is perhaps best considered a collective, socially generated, resource. As such knowledge as a resource can be either economically productive or non-productive depending on the type of social relationship in which it is shared.

Finally we suggest that the future development of the dynamic capability concept should incorporate a thorough discussion of socio-political aspects relating to learning and knowledge in organizations. This will only occur if authors reflect on their most basic assumptions regarding learning, knowledge and dynamism. If we are to advance our understanding of organizational attempts to secure diverse forms of rent we need to create a better dialogue between strategic management and organizational learning through terminological clarity and collaborative research activity.

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