Can a cybernetic lens contribute to the business strategy domain?

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December, 2010

Abstract
Purpose – This paper attempts to synthesis the strategy literature in such a manner as to identify the key approaches and themes of current interest and thus provide a platform to position organisational cybernetics, in particular, the VSM, as a complement to these established approaches.
Design/methodology/approach – The paper reviews the dominant themes of three conceptual strands to the business strategy domain (the Resource Based View (RBV), the Strategy-as-Practice approach and the Strategy-Structure debate) to ascertain how they inform about the notion of strategy as the content of the process of strategising. Concepts from organisational cybernetics are examined to reveal how they can enrich our understanding of strategy, and complement the strategy domain conceptualisations.
Findings – This analysis presents the view of strategy as discourse for action. The VSM provides a device to support discussions about the organisational implications both of the process of strategising as well as of considered strategies.
Research implications – The different themes found within the strategy literature (e.g. the process of strategising, internationalisation, collaborative ventures and Mergers & Acquisitions) offer a rich domain within which organisational cybernetics and the VSM can enrich through its systemic epistemology. Likewise the strategy domain can inform interpretations of the VSM. Together, this offers the opportunity for a new stream of enquiry.
Practical implications – The insights provided suggest that assistance can be given to organisations for them to improve, not only their strategy related activity, but also how they evaluate the organisational implications of considered strategies.
Originality/value – This analysis attempts to bridge the two conceptual domains of strategy and organisational cybernetics to promote the view that they usefully enrich each other when attempting to understand strategy.

Keywords: Strategy process, Strategy as practice, RBV, organisational cybernetics, Viable System Model, systems.

Paper type Conceptual paper

1 Introduction

That Stafford Beer's Viable System Model (VSM) is relevant to the notion of a business strategy is hard to argue by those familiar with the VSM. However, in the business strategy domain there appears to be little reference to the VSM, with perhaps the exception of Henry Mintzberg. Mintzberg (1979: 37) draws attention to an "elaborate version of" the view of the organisation "as a network of regulated flows" which refers to his figure 3-3, this being a diagram of the VSM from Beer's "Brain of the Firm" (1972). This appears to be one of the very few references in the strategy literature to Stafford Beer's work.

Whilst the strategy literature has not much to say about the VSM, it contains a rich and abundant collection of conceptualisations, analyses and case-studies. However, reviews of the conceptual advancement of the strategy field over the last fifty or so years reveals its multi-trajectory development (Mintzberg et al., 1998; Hoskisson et al., 1999; Phelan et al, 2002; Ramos-Rodriguez & Ruiz-Navarro, 2004; Herrmann, 2005; Furrer et al., 2008; Cummings & Daellenbach, 2009).

One such review by Hoskisson et al. (1999) suggests that three broad trajectories can be distinguished. The first trajectory, prevalent in the 1960s was characterised by the view of the firm as unique, prescriptive in orientation, with case-studies presenting best practices. Indeed, one early debate (Chandler, 1962)) concerned which drove the other: strategy or structure. The second trajectory (the late 1970s and 1980s) was concerned with how the business positioned itself within an economic context (e.g. relative to competition within a strategic group or industry), was explanatory and predictive, and drew upon industrial

economics and the statistical analysis of large data-sets. The third trajectory (emerging in the 1980s) focused attention back to the business, but this time upon the manner in which some firms outperformed others by developing the capability to make better use of their resources, using case-studies to illustrate. Specific themes have included strategic leadership and knowledge management, with more recent attention focusing upon the dynamics underpinning sustainable competitive advantage within the context of rapid developments in technologies, increased levels of globalisation and new institutions from emerging economies (Hoskisson et al., 1999).

This draws attention to an entity, the business, existing in a shared space with other entities, this space commonly referred to as the 'business environment'. Moreover, it denotes that the entity has an inside and an outside. The trajectory I conceptualisations were concerned with optimal responses to specific external conditions. Trajectory II conceptualisations were focused upon the entity's positioning relative to other entities within this shared space, with entities being viewed as homogenous. The trajectory III conceptualisations recognised the heterogeneous nature of these entities and that some outperformed others, which focused attention upon what was going on inside the entities. Moreover, the temporal dimension reveals the ongoing, multifarious nature of change taking place both inside and outside, and at rates of change which can vary considerably. These entities exploit what is going on outside by internally adjusting or by developing associations with, acquiring or merging with other entities or perhaps by splitting to create new entities. The challenge is the development of capability to initiate, develop and maintain relations with the outside. This focus upon internal capability has given rise to a rich body of literature, encapsulated in the label 'resource-based view' (RBV).

One criticism of the RBV is that the unit of analysis is the organisation, which fails to pay sufficient attention to what actors engaged in strategising actually do (Whittington, 1996). Instead, a micro-study focus is proposed for strategy related practices (labelled 'strategy-as-practice'), which makes its contribution by shifting attention from the notion of organisational 'core competences' to that of managerial 'practical competences'. This subtle distinction transfers attention from strategising as a coherent process to a composite of discrete activities (e.g. meetings, budgeting, documenting).

What becomes apparent when examining the conceptualisations of both the established RBV analysts and the emergent strategy-as-practice analysts is that many issues resonate with the strategy-structure debate initiated with Chandler (1962). Whilst the former is concerned with the resource configurations which provide competitive advantage and hence the strategies that have led to these configurations, the latter is more concerned with process and relates to structure, almost neglecting the content of strategies themselves. The strategy – structure debate both brings together yet highlights the distinction between what is examined / formulated (the strategy – as content) and the processes from which strategies arise and are implemented (the structure).

The interplay between strategy and structure can be viewed from an alternative perspective, through the cybernetics lens. Rather than view strategy as both content and process, with the acts of formulation and implementation being viewed as distinct, strategy can be viewed as discourse about possibilities (options) and action (implementation) within an operational domain (Espejo, 1992[1]) within which formulation and action are integral. Cybernetics offers, through its systemic epistemology, a rich insight into the dynamics of this operational domain, particularly through the use of the VSM. The VSM allows the modelling of both the detail of strategising as situated practices (e.g. situated functionally, organisationally, spatially and institutionally), as well as the detail of the operational ramifications of pursuing a strategy of, for example, reconfiguration (e.g. out-sourcing or off-shoring), collaboration (e.g. strategic alliance or joint venture) or integration (merger or acquisition).

The aim of this paper is to identify the key themes of the current approaches to thinking about strategy and establish how organisational cybernetics and the VSM can inform these established approaches, thus complementing them.

The paper is structured in three parts. The first part provides a digest of the dominant themes of three conceptual strands to the strategy domain (the Resource Based View (RBV), the Strategy-as-Practice approach and the Strategy-Structure debate) to ascertain how they inform about the notion of strategy and

[1] Espejo, R. (1992) Management of Complexity in Problem Solving.

the process of strategising. The second part examines how strategy and the process of strategising can be viewed through the lens of organisational cybernetics and the VSM. The paper finishes with a discussion which argues that the organisational cybernetics lens enriches established strategy approaches through the framing of the respective approaches within a systemic epistemology. It is concluded that strategy can be usefully viewed as discourse for action.

2 Analytical approaches to strategy

2.1 Strategy from the resource-based view

A more recent development within the field of strategy is the resource based view of strategy. Whilst conceptually grounded in the domain of organisational economics, it has drawn much attention as revealed in the review by Hoskisson et al (1999).

The landmark paper introducing this viewpoint was published in 1984 by Birger Wernerfelt: "A Resource-based View of the Firm". He argued that whilst "the minimum necessary resource commitments" can be inferred for a firm's activity in a product market, by specifying a firm's resource profile (a 'resource bundle'), "it is possible to find the optimal product-market activities" (Wernerfelt, 1984:171), a view which he then develops. In redirecting attention from outside to inside the firm, he turns to Andrews' (1971) conceptualisation of strategy which identifies "corporate competence and resources" (Andrews, 1971: 38) as one of the four components of strategy. However, Wernerfelt suggested that the view of the firm in terms of resources can be attributed to Penrose (1959).

Penrose, in her discussion of the 'theory of the firm', draws attention to the importance of the administrative framework for direction and co-ordination, which includes decentralising mechanisms ("accounting devices" (ibid: 19) and "authoritative communication" (ibid: 20) (vertically transmitted instructions, policies and procedures)) that facilitate distributed decision making and a degree of autonomy, "without destroying the firm's essential unity" (ibid: 18). Indeed, one conclusion is that the rate of a firm's growth is limited by it management capacity. However, Penrose states that "a firm is more than an administrative unit; it is also a collection of productive resources the disposal of which between different uses and over time is determined by administrative decision" (ibid: 24). She argues that resources are heterogeneous and that it is the variety of possible services rendered by resources, that "gives each firm its unique character" (ibid: 75), in other words, the different ways in which physical and human resources can be used. However, in terms of combining resources there is the 'jig-saw puzzle' of how to combine individual (indivisible) units of resources, so that no resource units are left unused.

The resource-based view possibly became popular following the publication in 1990, of a paper by Prahald & Hamel (Wernerfelt, 1995). They introduced, in "a compelling management style" (Wernerfelt, 1995), the notion of 'core competencies', arguing that "the real sources of advantages are to be found in management's ability to consolidate corporate wide technologies and production skills into competencies that empower individual businesses to adapt quickly to changing opportunities" (ibid: 81). This involves collective learning, co-ordination and integration and also communication, involvement and commitment. In 1993, Hamel & Prahalad (1993) introduces the notion of 'stretch', arguing that "leveraging resources is as important as allocating them" (Hamel & Prahalad, 1993: 77); stretching aspirations beyond available resources and finding ways to achieve these ambitions.

An alternative view was presented by Barney (1991), who developed the notion of resource heterogeneity. He questioned an assumption that, due to the mobility of resources, resource heterogeneity is short-lived, with the implication that firms within an industry are homogeneous. He suggests that resources need not be mobile and by retaining the unique features of these resources, firms are heterogeneous. Resource heterogeneity and immobility, and hence competitive advantage, are achieved if a resource has four attributes: is valuable, is rare, is "imperfectly imitable" (ibid: 106) and there are no "strategically equivalent substitutes that are valuable but neither rare or imperfectly imitable" (ibid: 106). Barney draws attention to the importance of the unique historical context of the firm within which resources are acquired and exploited, grounding this view in the work of others (e.g. Ansoff, 1965; David, 1985).

Whilst Wernerfelt (1984) introduces the notion that resources can be developed over time ('dynamic resource management'), it is left to others to develop this theme.

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Teece et al (1997) present 'dynamic capabilities' to capture the notion of "the firm's ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments" (ibid: 516). They argue that a firm's competitive advantage "lies with its managerial and organisational processes, shaped by its (specific) asset position, and the paths available to it" (ibid: 518). Processes have the roles of" co-ordination / integration (a static concept); learning (a dynamic concept); and reconfiguration (a transformational concept). The asset position identifies the differentiating resources. The notion of 'path' "recognizes that 'history matters'" (ibid: 522) and involves learning, which "tends to be local.... [and] is often a process of trial, feedback and evaluation" (ibid: 523). This insight was offered as a base for a more detailed conceptual account of 'dynamic capabilities', which could include consideration of the impact of technologies and innovation.

In their definition of 'dynamic capabilities', Eisenhardt & Martin (2000) addresses the manner in which capabilities are dynamic by focusing attention upon processes and specific identifiable routines:

> 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 as markets emerge, collide, split, evolve, and die (ibid: 1107).

These processes are identifiable (e.g. product development, alliance formation) and are idiosyncratic in the advantage they confer, though share common characteristics by virtue of there being a better way of doing things - 'best practice' (e.g. use of cross-functional teams in product development). However, this raises the issue of equifinality; that the path by which firms converge on best practice varies considerably, with many different starting points and discovery paths which are independent of the actions of others; managers can find for themselves better ways to do things.

This pioneering work has led to a variety of conceptual developments. For example, Eisenhardt & Martin, (2000) have examined the notion of dynamic capabilities in the context of hypercompetition, where the business environment is fast-moving and there is a deficiency of information (Bourgeois & Eisenhardt, 1988). Cohen & Levinthal (1990) have developed the concept of 'absorptive capacity' to explain how the ability to exploit (acquire, assimilate and use) new external knowledge is contingent upon prior relevant knowledge, this being viewed by Zahra & George (2002) as a form of dynamic capability. Winter (2003) introduces the notion of multiple levels of capability (a capability hierarchy), with zero-level capability being denoted by a stationary or unchanging process (e.g. new product development for an R&D business) with higher-order dynamic capabilities having superiority over lower orders.

This necessarily cursory review of the pioneering conceptualisations of the RBV, whilst selective, reveals the concerns of its adherents. Perhaps not unsurprisingly, attention focuses upon resources, not as isolated elements, but as an integrated configuration. The resources available and the manner of their configuration establish the unique character of organisation. Moreover, these configurations are not fixed but dynamic (Teece, 1997; Eisenhardt & Martin, 2000), adjusting over time, whereby the business either deals internally with changes taking place externally (e.g. changes in customer or competitor behaviour, the emergence of opportunities) or attempts to influence external absorption of what is going on internally (e.g. technological innovation). Associated with change is learning, though this takes place through the experience of working out the 'jig-saw puzzle' (Penrose, 1959) of best practice. Indeed, different organisations can arrive at best practice independently, indicating that there are many paths to the same outcome (Eisenhardt & Martin, 2000). This temporal dimension highlights the importance of historical context (Barney, 1991; Teece, 1997) from which internal capability develops as well as the knowledge learnt through this experience. Other issues include the administrative framework (Penrose, 1959) and management's ability to exploit resources (Prahald & Hamel, 1990), indeed, 'stretching' aspirations to leverage resources (Hamel & Prahald, 1993).

The RBV offers a rich blend of conceptualisations about the organisation which allow 'thick descriptions' (Geertz, 1973: 7) about the routines and practices of its actors. Moreover, the notion of a configuration of resources, which has been alluded to infers the notion that organisations are designed, as in the case when organisation experience the periodic 'restructuring'. However, this 'design' does not appear to be a developed theme. It is not clear how the concepts offered can be used in a prescriptive manner (cf. Priem & Butler, 2001). Indeed, one of the difficulties with the RBV is that its unit of analysis is the organisation. Thus, it does not penetrate the layers of the organisation to the detail of practices.

2.2 Strategy from the strategy-as-practice perspective

One early call for more detailed 'fine-grained' studies of how strategy takes place in organisations was made by Gerry Johnson in 1988:

> Overall the results of the study emphasize the importance of understanding strategic management processes essentially in terms of organization action perspectives, and argue for the continued development of models which more precisely explain both strategy formulation and implementation in these terms. (Johnson, 1988: 90)

This call is in keeping with discontent with the 'mythologies' about practice and is reminiscent of the work of Ravetz (1971) and Latour (1987) who examined the detail of what scientists did, contested the idealised notion of scientific practice and revealed it as a deeply social process. However, this is not a new approach within the management domain, typified with the detailed studies of management practices by Rosabeth Kanter and Henry Mintzberg. Nonetheless, Knights & Morgan (1991) have observed the shift since Johnson's call, from strategy being viewed as a "set of 'rational' techniques for managing complex businesses in a changing environment" (ibid: 251), to one which views strategy as socially constructed processes.

The take-up of this call has appeared in the strategy-as-practice perspective, which emerged with the Richard Whittington's publication of "Strategy as Practice" in Long Range Planning in 1996. In this paper, it was stated that its thrust was "to take seriously the work and talk of practitioners themselves" (Whittington, 1996: 732), in other words, to understand what those engaged in strategising actually do. Since then it has received much attention as evidenced by papers in '*Organization Studies*' and '*Human Relations*'. Moreover, subsequent strategy-as-practice studies were noted by Jarzabkowski (2007) to draw upon "theories of strategy and organization in order to frame and explain strategy as a social practice (ibid: 20).

However, Chia & MacKay (2007) argue that the strategy-as-practice perspective needs to be more theoretically grounded, both philosophically and methodologically. Separately, Jarzabkowski et al. (2007) explain that

> Strategy-as-practice as a field is characterized less by what theory is adopted than by what problem is explained... the field does not require 'new' theories per se, but to draw upon a range of existing theories to explore the strategy problems defined within our conceptual framework, to develop novel methods and research designs for their study (Balogun et al., 2003), and to advance explanations of how strategy is accomplished using these different levels and units of analysis (ibid: 19).

Jarzabkowski et al reveal the propensity for theories to be drawn from a social constructionist perspective. Moreover, in accord with this, Jarzabkowski (2005) develops a conceptual framework grounding the strategy-as-practice view in Vygotsky's activity theory. She distinguishes three categories of strategy practices:

1. "'rational' administrative practices" (ibid: 8) that organise and co-ordinate (e.g. planning, targets),
2. "'discursive' practices that provide linguistic, cognitive and symbolic resources for interacting about strategy" (ibid: 9) (discourse itself and the tools / techniques used to "provide an everyday language for this discourse" (ibid),
3. "episodic practices" (e.g. meetings, workshops) in other words events to encourage interaction.

This draws attention to routine regulatory practices and the significance of interactions. In Jarzabkowski (2004) a social theory framework is presented, drawing upon Giddens structuration, which examines the apparent tension between the two themes recursiveness and adaptation. Recursiveness, which is inherently stabilising, since it invokes reproducing existing practices and hence inhibits change, tends to be recognised at three levels, these being the actor, the organization, and the social institution. There are different constraining factors for each: psychological / cognitive for the actor, path dependency, the embeddedness of routines and organisational memory for the organisation and isomorphism (from institutional theory) at the social institutional level. It is suggested that the tension between recursion and adaptation can be understood in terms of the concept of 'absorptive capacity' (Cohen and Levinthal 1990): knowledge that relates to prior knowledge is selected and assimilated. Indeed, acquisition, as an example of adaptation,

builds upon existing capabilities, either reinforcing existing competencies ('resource-deepening') or introducing new competencies ('resource extension') (Karim & Mitchell, 2000),

This notion of resource-deepening supports the proposal by Regner (2008) that a significant contribution of the strategy-as-practice perspective is how it complements the RBV. Whilst the RBV had its unit of analysis as the organisation, with focus upon resources and dynamic capabilities, the strategy-as-practice perspective has, as the unit of analysis, the discrete distinctions of the every-day, in terms of actors (e.g. middle managers: Wooldridge, Schmid & Floyd, 2008; Mantere, 2008), activities (e.g. scenario planning: van der Merwe, 2008), interactions (e.g. meetings: Jarzabkowski & Seidl, 2008), events (e.g. workshop away-days: Whittington et al., 2006), tools / techniques (Kaplan & Jarzabkowski, 2006), and also lived experiences (Samra-Fredericks, 2003) and practical coping (Chia & Holt, 2006). The former tends towards identifying the key resources, competencies and capabilities, whilst the later is towards rich and thick descriptions of what occurs. Common to both the RBV and the strategy-as-practice is the notion of configuration.

2.3 Configuration and the strategy – structure debate

The notion of configuration first appears in the seminal work of Alfred Chandler (1962) who argued that a company's strategy determined its structure and the manner (i.e. the decisions) in which the organisation's resources were allocated to serve its market. This debate was revisited by Hall and Saias (1980), who recognised the embedded nature of organisations: "any organisation is a structure within a structure" (ibid: 152), though "structure is also a political hierarchy, defining relationships of power and dependency" (ibid). They conceptually examined the various arguments and concluded that "structure is the result of a complex play of variables other than strategy", but that there is a need for strategies to take account of structure. Moreover, they recognise that both strategy and structure both have 'political content'. They argue that irrespective of the sequence, strategy and structure needs to be aligned otherwise there will be inefficiency, an interpretation that they ascribe to Chandler's stance. They conclude that "the relationships between strategy, structure, and the environment are symmetric" (ibid: 162). Ansoff (1987) dismisses the structure-strategy debate by stating that "it can go either way" (ibid: 512).

An alternative approach to the strategy-structure debate was introduced by Mintzberg (1979, 1980), the 'configuration hypothesis': "that effective structuring requires an internal consistency among the design parameters" (Mintzberg, 1980: 328) and that there are "natural clusters or configurations of the design parameters" (ibid). For Mintzberg, "structure seems to be at the root of many of the questions we raise about organizations" (Mintzberg, 1979: xii). He develops a conceptual framework, partially grounded in the conceptualisations of James D. Thomson (1967), which allows him to derive five 'ideal' configurations of organisational structures that "can be used to help us comprehend organizational behaviour - how structures emerge, how and why they change over time, why certain pathologies plague organizational design" (Mintzberg, 1980: 339).

This notion that organisations may have specific configurations of organisational variables was empirically examined by Millar in the 1970s. A multivariate analysis of 81 business case-studies resulted in the identification of ten archetypes out of 48 possibilities (Miller & Friesen, 1977, 1978). Revisiting the topic of configuration in 1996, Miller proposed that particular alignments of strategy and structure appear to be driven by 'central themes'; that there are 'degrees' "to which an organization's elements are orchestrated and connected by a single theme" (Miller, 1996: 509) (e.g. cost reduction, innovation). Moreover, it was proposed that "competitive advantage may reside in the orchestrating theme and integrative mechanisms that ensure complementarity among a firm's various aspects" (ibid: 509), in other words, it is the configuration rather than any specific feature of the strategy that confers competitive advantage. However, he also argues that over time "most successful organizations become simpler, not more complex" (Miller, 1993: 134).

> Of course, managers do not just simplify their models of the environment; often they actively try to simplify the environment itself. They may do this by catering only to customers they can serve best,... (ibid: 128)

Moreover:

> Over time, the alignment among many aspects of culture, strategy, and structure becomes tighter and more consistent. Eventually, much variety vanishes from the system, which starts to conform more and more to one central theme (ibid: 129)

The myopic obsession with focus, adherence to 'specialized recipes' (strategies) and failure to respond to the need for change, perhaps arises from overconfidence and intolerance of the views of others, together with increasingly specialised knowledge and little incentive to break the embedded routine (Miller, 1993). Miller (1993) concludes:

> ...ultimately, these configurations become distended, exaggerated, and lacking in richness and subtlety. Eventually, such companies will behave less like organisms and more like machines, so that surprise and randomness, the sources of much knowledge, are lost (Beer, 1966; Le Moigne, 1977). Activities become more thematic, more specialized, and more uniform. Before long, there is no more "noise" left in the system: no court jesters, no devil's advocates, no iconoclasts with any say, no countervailing models of the world (Steinbruner, 1974). This conformity, of course, decreases flexibility, engenders myopia, and blocks learning and adaptation. (ibid: 134)

The underlying argument, that of the inadequacy of the system's (firm's) variety and the restricted variety of the environment to explain the notion of simplicity, draws upon Ashby's Law of Requisite Variety (Ashby, 1956), in which he cites Buckley (1968: 495) to explicate: "the variety within a system must be at least as great as the environmental variety against which it is attempting to regulate itself" (Miller, 1993: 118).

Whether it is accepted that most successful firms become configurationally simpler, Miller's account in the strategy literature is perhaps unique in that it draws attention, not only to the importance of the configuration of the interrelated and complementary elements of the organisation, but that this configuration is dynamic. Moreover, whilst Miller does not appear to explicitly claim to be systemic, he is tacitly invoking a systemic perspective, evident in his reference to Beer and Ashby in his 1993 paper.

2.4 Summation

The unfolding picture of the conceptual development of strategy reveals the diversity of issues that arise when considering what constitutes strategy.

The RBV of strategy has the organisation as its unit of analysis. The RBV draws attention to the organisation's dynamically configured resources and capabilities, and conceptualises how they offer competitive advantage. The emphasis is upon strategies. However, the RBV does not explain how a configuration comes about or changes over time, nor how to validate assertions of the importance of some resources or capabilities over others. Indeed, the different variables that can be selected for study (e.g. leadership, knowledge, decision-making, power, technology) reveal the possibly arbitrary nature of how elements can be conceptually selected and configured.

In contrast, the strategy-as-practice call for rich / thick fine-grained studies of strategising as practiced within organisation has the aim of understanding the reality of the every-day. It recognises the distributed nature of strategising related activities within the organisation, invoking multiple levels of analysis, as well as the influence of extraneous factors (e.g. external stakeholders, institutional regulatory bodies). However, it appears to offer little insight into how these rich and thick descriptions can be conceptualised. Indeed, the notion of recursion (implying stability) and adaptation are viewed as being at odds (Jarzabkowski, 2004)

A further insight is provided by the strategy – structure debate. Efforts to understand the interplay between strategy and structure have led to the recognition that particular configurations are more likely to emerge than others, driven by specific 'themes' as proposed by Miller. However, this debate appears to take the unit of analysis as the organisation with the emphasis upon strategy, comparable to the RBV. On the other hand, it also lacks the fine grained resolution called for by the strategy-as-practice adherents.

One of the challenges facing analysts of strategies and the process by which they come about (strategising) is how to provide a coherent account of the many different frames with which strategies and strategising can be viewed. Using the metaphor of the zoom-lens, analysts can zoom-in to observe the detail of discrete activities (e.g. meetings), as well as zoom out to scan ever-bigger landscapes (e.g. the department, division, corporation, region, sector...). Each frame will reveal specific configurations of the constituent elements, which may be apparent to some degree in adjacent frames, but in more distant frames. Moreover, drawing from the strategy – structure debate is the question of the interplay between strategies and strategising, which tend to be treated as distinct issues (content and process) in the strategy literature.

It is proposed here that a contribution towards the conceptual framing of these different issues can be provided through the cybernetics lens, in particular through that expounded by Stafford Beer.

3 The cybernetic lens, VSM and strategy

The cybernetic lens offers both epistemological insights (through the lens of second-order cybernetics: Humberto Maturana (1970) and Heinz von Foerster (1979)) as well methodological insights (the Viplan Method: Raul Espejo (Espejo et al, 1999)) into the nature of organisations and how they can be understood. One important conceptualisation of the organisation is Stafford Beer's Viable System Model (VSM) (Beer, 1972, 1979, 1983, 1984, 1985; Espejo & Harnden, 1989).

Underlying this is the question of how to view the concept of organisation. One useful view is as a closed regulated network of interactions among actors engaged in *purposeful* behaviour orientated towards interaction with others outside the network. An observer would recognise this closed network as having an identity, through how it presents itself to those outside in its 'environment'. The emergence and development of this network arises on the assumption of sustaining interactions, in particular, economically viable interactions, with those outside, though individual interactions may change over time. The business challenge is to sustain interaction, developing existing interactions and establishing new interactions. Moreover, the closed network will undergo structural adjustments to maintain these interactions and to achieve long-term intent. The relationship between inside and outside can be viewed as asymmetrical. What goes on externally goes on irrespective of internal developments; internal developments, whilst shaped by external developments, may also shape what takes place externally, though to what degree will be contingent upon a wide range of factors (e.g. organisation size, reach, nature of technological breakthrough, consumer demand).

The notion of regulated interactions draws attention to observed invariances in interactions, these constituting routine or recurrent interactions. Through interactions there is discourse, from which there are decisions and activity, this activity serving the objectives and goals of the specific network, thereby establishing the purpose of the network. By implication, unless there is interaction, then discourse will not take place, no matter how desirable. Thus the email sent but not read is an interaction not realised. Moreover, the content of discussions is shaped as much by those excluded from the discussions, by virtue of the absence of their potential contribution. This has implication for how stakeholders (e.g. local community representatives, consultants and local government officials) participate within discussions. It also has implication for how other shaping influences are introduced into these discussions, for example, new government policies, developments in technologies or changes in consumer behaviour.

The manner in which the organisation is regulated can be understood using the VSM. The activities that are the purpose of the network as a collective constitute the primary activities of the organisation and manifest as system one of the VSM. The other four systems constitute the functional mechanisms that regulate system one. However, the unit of analysis is not solely the total organisation. An organisational analysis allows the unfolding of the organisational complexity (Espejo et al, 1999) to reveal different levels of recursion, in other words, sub-units (system ones) with discretionary responsibilities. At the lowest level, attention is given to the detail of practices that has attracted the strategy-as-practice adherents.

A widely held view is that within the organisation, strategies are formulated, decided upon and implemented. In keeping with Mintzberg's concept of emergent strategies, there is also the notion of a series of independent decisions resulting in actions, which an observer detects as a pattern of behaviour and ascribes to be a strategy. Strategy as the content of discourse and the consequent action is not confined to a specific part of the organisation but can take place at any point in the organisation (e.g. the shop-floor operator who recognises a new marketing opportunity), though there may be formalised organisational roles designated to carry out specific 'strategy' related activities (e.g. planning, market research), as well as routinised events (e.g. monthly board meetings, periodic 'reviews'). Moreover, this content may be translated into a textual form (e.g. a report) for distribution, or is possibly surreptitiously acquired by interested but distant stakeholders (e.g. an NGO), in both cases stimulating more discussion. The content of any discussions is about both possibilities and action (implementation). Whereas particular interactions are involved in discourse about possibilities, other interactions may occur for discourse involving action. Indeed, this view of strategy as activity orientated discourse about the future perhaps dissolves the strategy – structure dichotomy initiated by Chandler in 1962.

Structures concern the interactions within which discussions about strategies take place, whether these discussions are about possibilities for action or relate to the realisation of decisions in terms of implementation. Structure can be viewed as the observed invariances of interactions through which discourse and activity arise. Rather than a clearly defined prescriptive process with the definitive outcome being the strategy, strategies and the process of strategising are viewed as ill-defined yet organisationally embedded and diffused across the different levels of the organisation. The contribution of the VSM is that it offers a conceptual framework for modelling both what takes place in organisations, including the diagnosis of dysfunction, as well as possibilities for action. Thus, it potentially offers insight into all that is embraced within the notion of a strategy. Whilst there are many different ways of exploring this, there are two aspects which can illustrate the insights offered. The first concerns the notion of adaptation as a mechanism for change, how this takes place in practice and how this can be conceptualised. The second relates to the modelling of the structural and relationship implications of particular strategies (e.g. internationalisation, collaborative ventures or M&A).

3.1 The mechanism of adaptation

In terms of the VSM:

> The mechanism for adaptation is usually associated with strategic management and is constituted by the policy [system five], intelligence [system four] and cohesion functions [system three / three*] (Espejo et al., 1999: 673)

Adaptation can be viewed as the ability to maintain the relationship between changing external demands and what is done within the organisation. This implies that, somehow, internal capability changes so that the organisation retains the requisite interactions with the outside in a manner that allows it to remain viable. This draws attention to the systems three and four dynamics and how they function within the boundaries set by system five. Moreover, it also draws attention to how system five, if required, changes these boundaries, these concerning the identity, direction and principles (policy) that shape operations.

Whilst system three is inward looking upon the organisation of the system-in-focus and what is going on now and system four is outward looking into what is going on outside and what might transpire in the future, the challenge presented is how they function together as an adaptive mechanism. System three provides information about operational capability (e.g. competence levels, work-station capacity, production run-times and supplier lead-times) and performance (e.g. daily operational performance indicators, such as non-conformances, absenteeism, cost variances and supplier delivery timeliness). System four provides insight into what is going on outside within the market niches served as well beyond in the more general environment. It is anticipatory in terms of possible futures as well as an instrument to generate self-awareness. System four is also a mechanism for translating what goes on, whether inside or outside, into models (e.g. graphs, tables, simulations, scenarios) using such modelling tools as spreadsheets and flip-charts. Discerned patterns and lessons relating to the past, drawing upon the organisation's memory (Stein, 1995), are used to anticipate future possibilities. However, if there are ineffective mechanisms for learning from experiences, records are destroyed and people leave, then there is the danger of 'corporate amnesia' (Kransdork, 1998).

Whilst some models (work-load) can be created through analysis and discussion, other models will draw upon analytical devices such as PESTLE Porter's Five Forces Model or SPSS. Jarzabkowski et al. (2010) provides insight into use of these devices, distinguishing between those most valued and those most used for the three different stages of the strategy process: analysis, selection and implementation. Whilst SWOT was the most used for analysis, PESTLE, Five Forces and Value Chain were the most valued. For selection, scenarios were both most valued and used. Key success factors were both most valued and used for implementation. Reasons for the discontinued use of devices included the perceived legitimacy of the devices by others in the organisation who were unfamiliar with them.

This particular reason supports the notion that models serve as boundary objects (Star 1989), providing a bridge which allows different stakeholder viewpoints to be shared. They are devices to support discussion. The model serves not only to generate insights about different viewpoints, but also is means by which solutions are obtained. Indeed, Ackoff (1962) argues that we cannot solve problems without "a conceptual representation of it and such a representation is a model" (Ackoff, 1962: 7). However, and drawing upon the finding by Jarzabkowski et al., if people are unfamiliar with a particular model then it loses its potential

as a boundary object. Moreover, the danger arises when people confuse the model with reality and view the model as reality (Harnden, 1989), setting inflexible targets based on the model and ignoring that which occurs in reality, but is not accommodated in the model.

System four is recognisable within an organisation as the various analytical functions of the organisation (e.g. planning, accounts) which are distributed throughout the organisation and at different levels of recursion. However, this analytical work is distinct from the thinking that relates to the development of strategies (Mintzberg, 1994). The challenges facing this analytical service include whether it is appreciated by the other parts of the organisation and how it feeds into discussions about strategies. Indeed, the VSM draws attention to the relationship between system fours at different recursive levels and also with system threes at different levels and the possible tensions that might exist. For example a centralised specialist modelling activity (e.g. multivariate modelling of customer purchasing patterns) may be perceived as interventionist by the system fours and threes of autonomous operational subsidiaries. Moreover, adaptation may be undermined by a breakdown in the relationship among system fours or with system threes across different recursive levels (e.g. higher level enthusiasm for change may contrast with lower level inertia, or vice-versa).

The outcome from the adaptation mechanism is change, whether it be in the capabilities of the organisation, or in its relationship with outside. Capabilities may be modified (e.g. to become complaint to new legislation) developed (e.g. through R&D, training), stretched (e.g. to increase yield) or acquired (e.g. through acquisition or a collaborative venture). Sales will seek to establish connections with customers with view to recurrent dealings. Technologists will seek to attach themselves to those outside from whom they can learn from and update their knowledge. Whilst it is important to be attentive to what is going on outside, activity to sustain relationships with the outside takes place within.

3.2 The implications of particular strategies

Whilst the previous section has focused on a mechanism for strategising, this section focuses upon the outcome of strategising and how the organisational implications of a chosen strategy are an intrinsic feature of their implementation. To illustrate, the example of a hypothetical merger is presented.

A merger requires the collapse of two entities into one, which presents the challenge of their integration and how this is to take effect. The position prior to the merger will be one of two entities existing independently. The initial discussions about a possible merger will result in the respective systems five and four forming steering committees and working groups, drawing members from systems five of lower recursive levels, these allowing vested interests to voice their views. Immediate attention will focus upon the activities of the respective entities and where there is overlap (e.g. administrative functions such as ICT, HR and accounting), complementarity (e.g. primary activity capability) or exclusive capability (e.g. intellectual property) and how these are to be addressed. Whilst rationalisation may deal with overlap, the exploiting the potential synergies of complementarity and exclusive capability are issues of how to organise. However, this is not merely the question of subsuming a primary activity within a system one, but one of fit within each meta-level of recursion. It invites questions as to the distribution of discretion and whether pre-existing autonomy is retained. For example, the 'brand' of an autonomous subsidiary may have the brand preserved within marketing, whilst the subsidiary itself is dissolved. It invites questions about the adequacy of existing co-ordinatory mechanisms, the consistency of resource bargaining mechanisms and the clarity about the corporate policies that are in force. Moreover, the formation of any new entities through the re-allocation of primary activities and resources requires embedding at the appropriate recursive level. The practicalities of how to deal with two distinct sets of legacy regulatory policies and procedures are complemented with issues of how to handle issues of estate, ICT integration and CSR, particularly if there are contrasting traditions in how these have been handled. Moreover, the redistribution of activities and with this, personnel, introduces potential tensions resulting from bringing together different organisational cultures and personalities. Once the merger takes place the committees and working groups are dissolved as the work of managing the merger process becomes embedded as part of the functioning of the new organisation.

In sum, a merger creates the challenge of how to integrate all the different facets of the respective entities. Without an adequate conceptual framework to consider the complexity, then there is the danger that issues are ignored. One solution is presented by Kanter (2009: 125), who suggests that the possible tensions

resulting from efforts to preserve territories may be resolved through' the creation of a "business model that's not identified with any one legacy company". However, this, in itself, invites the question of how to generate this new business model. The attraction of the VSM is the powerful attribute of being able to model multiple levels of the organisation, from the big picture to the micro-detail of discrete practices, in a manner that allows the interplay between the different parts, and hence the structural integrity, to be examined and dysfunctionality to be recognised.

4 Discussion and conclusions

The preceding account has examined three strands of thinking about strategy (the Resource Based View (RBV), the Strategy-as-Practice approach and the Strategy-Structure debate) and investigated strategy through the organisational cybernetics lens. The RBV draws attention to what goes on within the organisation in terms of generic conceptualisations of resources, capabilities and their configuration. Indeed, a business can gain competitive advantage by exploiting that which is unique and inimitable. However, both what currently exists and the legacies of the past shape decisions about how to proceed, though it is unclear how. Moreover, there appears to be little guidance as to how to bring about a particular configuration of resources and capabilities in order to establish this competitive advantage. Indeed the notion of equifinality suggests that there are different routes to this. Moreover, there is a dynamic aspect to this, though it is unclear what specific mechanisms are at play. As an analytical technique the RBV is it open to the danger of not recognising the configuration of taken for granted and hence invisible routines, which are nothing in themselves but collectively offer synergies manifesting in alleged advantages. Whilst this one weakness of the RBV is not the only one, it highlights that when the unit of analysis is the organisation and efforts are to seek a few attributes which confer advantage, then these efforts may ignore the conditions in which these attributes excel. These conditions comprise the detail of the organisation, and an observer of these will have great difficulty in establishing the significance of all the detail. Whilst hindrances can be detected (e.g. bottlenecks and high levels of process defects), what takes place on a day to day basis (e.g. the ability to make decisions in direct dealings with customers) may go unrecognised as a contribution towards competitive advantage.

This need to attend to the detail of what goes on in organisations is the focus of adherents to the view of strategy-as-practice. The organisation is not merely a configuration of resources and capabilities, but is a social system involving people in day-to-day practices. In order to understand the strategies and how they emerge from the nebulous process of strategising it is necessary to understand the detail of what really goes on in organisations. This invites detailed ethnographic style studies to provide thick descriptions of practices as well as the context within which practices have meaning (Espejo, 2000). However, for these multi-level studies to progress beyond description and offer explanatory insight they need appropriate conceptual frameworks to support analysis. Indeed, this presents the challenge of how to frame the variety inherent in the detail of observed practices.

The strategy – structure debate invokes the notion of a linear or deterministic relationship between one and the other: strategy determines structure or vice versa. However, at any moment in time there is a given structure which is subject to operational adjustment and from which strategies emerge. This does not imply that there is universal restructuring but that particular parts of the structure are adjusted. This suggests that there is an indeterminant circularity between the notions of strategy and structure, with neither being completely changed by the other. Whilst strategy and structure are related, it is postulated that this is not a simplistic linear relationship.

One of the interests of reading about any of the three strands of thinking about strategy are the recurring themes, for example, resources, configuration, co-ordination, dynamism and interaction with an outside. The aforementioned weaknesses of the three strands of thinking expose the absence of a more coherent way of thinking about strategy: how the different strands are inter-twinned.

It is argued here that a systemic approach to strategy offers an insight which contributes towards this more coherent approach. This draws upon the conceptualisation of the organisation through the lens of organisational cybernetics and the VSM. The VSM models an organisation's configuration of activities and hence the allocated resources from a regulatory perspective thereby highlighting the primary activities of the business which may be deemed to be core to the business. This systemic analysis provides a means to distinguish between the primary and regulatory activities of the business and hence enables what the

business does to be clearly established. Furthermore, it provides explanatory insight into observed dysfunctionality. Moreover, the uniqueness and inimitability may manifest, not necessarily from the core activities themselves, but from the unique manner in which they are regulated, this being made transparent through the VSM with its analysis of the distribution of regulation. The VSM also allows multi-level detailed descriptions, as advocated by the strategy-as-practice approach, to be analysed in such a way as to reveal the interplay of issues between all the different levels. This it achieves by drawing upon the notion of recursion, which is distinguished from hierarchy through the characteristic of autonomy rather than control. More specifically the VSM allows the modelling of the distributed nature of those activities ascribed to the process of strategising, drawing attention to deficiencies. Moreover, the VSM permits the modelling of the organisational implications of considered strategies, in a consistent manner.

In sum, the VSM offers

- a framework to describe the organisation of human activity for purposeful activity (activity resulting from choice; Ackoff, 1971) in terms of the detail of activity, at the level of single act (e.g. 'use pen in hand to write your name to authorise document'), and the aggregate of activity, manifesting in the 'bigger picture' (e.g. department, company, industry),
- a tool to diagnose and explain organisational dysfunctionality,
- a template to support the design of organisational possibilities,

However, the strategy literature itself has rich conceptualisations, in particular the notions of capability and dynamic capabilities, which can inform interpretations of the VSM. Whilst the VSM invites interpretation of the alignment between the system-in-focus and its environment, the notion of capability draws attention to the development of organisational capabilities to establish and maintain contact with the requisite entities in the environment. When customer orders from an established customer base decline, the organisation has a variety of options. One is to establish contact with new customers for existing products / services (e.g. marketing). Another is to develop new products / services (e.g. R&D) and thereby renew contact with the existing customer base. In both cases the emphasis is capability grounded. The adaptation mechanism of the VSM provides awareness of what is going on both inside and outside so that the capability can be (re)developed internally to maintain adequate coupling with outside.

From an ontological perspective, the distinction between interactions between individuals and the content that is communicated through these interactions draws attention to all the interactions that are found in the organisation and how, through these, strategies emerge. Moreover, from these strategies, attention returns to reconfiguration of the requisite interactions to realise or implement these strategies. The VSM serves as a device to support discussions and decision making about these organisational configurations; it is a boundary object (Star, 1989). Indeed, if strategy is the content of discussions from which there is an expectation of action, then strategy can be usefully viewed as discourse for action with regard to the long-term viability of the organisation. This includes discourse about possibilities from which no action arises, either due to rejection of what has been discussed or due to the requisite interactions between strategists and implementers not existing to translate the outcomes of what has been discussed (i.e. decisions) into action.

However, strategy as discourse is not new as a concept, with perhaps a pioneering paper being presented by Knights & Morgan (1991). They present an argument which focuses upon strategy "as a set of discourses and practices which transform managers and employees alike into subjects who secure their sense of purpose and reality by formulating, evaluating and conducting strategy" (ibid: 254). Since then, there appears to be growing interest in this view (e.g. Knights & Morgan, 1995; Hendry, 2000; Hardy et al., 2000; Vaara et al., 2004; Samra-Fredericks, 2005; Laine & Vaara, 2007; Ezzamel & Willmott, 2008; Palli et al., 2009; Kwon et al., 2009; Vaara et al., 2010; Vaara, 2010). Indeed, the notion of strategy as simulacra (Grandy & Mills, 2004) highlights that whatever a strategy is, it has no substance, it exists only in our thoughts and discussions.

5 Acknowledgements

I would like to thank the various people who have critically commented on this paper, especially Raul Espejo not only for his comments but also for giving me the opportunity to write this paper.

6 References

Ackoff, R.L. (1962) Some Unsolved Problems in Problem Solving. *Operational Research Quarterly*, 13(1) p1-11.
Ackoff, R.L. (1971) Towards a System of Systems Concepts. *Management Science*, 17(11) p661–671.
Andrews, K. (1971) *The Concept of Corporate Strategy*. Homewood IL: Irwin.
Ansoff, H.I. (1965) Corporate Strategy. New York: McGraw-Hill.
Ansoff, H.I. (1987) The Emerging Paradigm of Strategic Behavior. *Strategic Management Journal*, 8 p501–515.
Ashby, W.R. (1956) *An Introduction to Cybernetics*. London: Chapman & Hall.
Balogun, J., Huff, A.S. & Johnson, P. (2003), Three Responses to the Methodological Challenges of Studying Strategizing. *Journal of Management Studies*, 40 p197–224.
Barney, J. (1991) Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1) p99-120.
Beer, S. (1966) *Decision and Control*. Chichester: John Wiley & Sons.
Beer, S. (1972) Brain of the Firm. Harmondsworth: Allen Lane, The Penguin Press.
Beer, S. (1979) *The Heart of Enterprise*. Chichester: John Wiley & Sons.
Beer, S. (1983) A Reply to Ulrich's 'Critique of Pure Cybernetic Reason: the Chilean experience with Cybernetics. *Journal of Applied Systems Analysis*, 10 p115-119.
Beer, S. (1984) The Viable System Model: its provenance, development, methodology and pathology. *Journal of the Operational Research Society*, 35(1) p7-25.
Beer, S. (1985) *Diagnosing the System for Organisations*. Chichester: John Wiley & Sons.
Bourgeois, L., & Eisenhardt, K. (1988) Strategic decision processes in high velocity environments: Four cases in the microcomputer industry. *Management Science*, 34 p816-835.
Buckley, W. (1968) Society as a complex adaptive system. In W. Buckley (ed.), *Modern System Research for the Behavioral Scientist*: Chicago: Aldine.
Chandler, A.D. (1962) *Strategy and Structure: chapters in the history of the industrial enterprise*. Cambridge, MA: MIT Press.
Chia, R. & Holt, R. (2006) Strategy as Practical Coping: a Heideggerian perspective', *Organization Studies*, 27(5) p635-655.
Chia, R. & MacKay, B (2007 Post-processual challenges for the emerging strategy-as-practice perspective: Discovering strategy in the logic of practice. *Human Relations*, 60(1) p217-242.
Cohen, W.M. & Levinthal, D.A. (1990) Absorptive Capacity: A New Perspective on Learning and Innovation. Administrative Science Quarterly, 35(1), Special Issue: *Technology, Organizations, and Innovation*, p128-152.
Cummings, S. & Daellenbach, U. (2009) A Guide to the Future of Strategy? the history of Long Range Planning. *Long Range Planning*, 42 p234-263.
David, P.A. (1985) Clio and the Economics of QWERTY. *The American Economic Review*, 75(2) Papers and Proceedings of the Ninety-Seventh Annual Meeting of the American Economic Association. (May, 1985), p332-337.
Eisenhardt, K.M. & Martin, J.A. (2000) Dynamic Capabilities: what are they? *Strategic Management Journal*, 21 p1105-1121.
Espejo, R. & Harnden, R.J. (eds.) (1989) *The Viable System Model: interpretation and applications of Stafford Beer's VSM*. Chichester: John Wiley & Sons.
Espejo, R. (1992) Management of Complexity in Problem Solving. *Transactions of the Institute of Measurement and Control*, 14(1) p8-16.
Espejo, R. (2000). Giving Requisite Variety to Strategic and Implementation Processes: Theory and Practice, *International Symposium on Knowledge and Systems Sciences: Challenges to Complexity* (pp. 34-42). Ishikawa, Japan Japan Advanced Institute of Science and Technology.
Espejo, R., Bowling, D. & Hoverstadt, P. (1999) The Viable System Model and the Viplan software. *Kybernetes*, 28(6/7) p661-678.
Ezzamel, M. & Willmott, H. (2008). Strategy as Discourse in a Global Retailer: a supplement to rationalist and interpretive accounts. *Organization Studies*, 29 p191-217.
Furrer, O., Thomas, H. & Goussevskaia, A. (2008) The structure and evolution of the strategic management field: A content analysis of 26 years of strategic management research. *International Journal of Management Reviews*, 10(1) p1-23.
Geertz, C. (1973) Thick Description: Toward an Interpretive Theory of Culture. In: Geertz, C. *The Interpretation of Cultures: Selected Essays*. New York: Basic Books.

Grandy, G. & Mills, A.J. (2004) Strategy as Simulacra? A radical reflexive look at the discipline and practice of strategy. *Journal of Management Studies*, 41 p1154-1170.
Hall D.J. & Saias, M.A. (1980) Strategy follows structure! *Strategic Management Journal*, 1(2) p149–163.
Hamel, G. & Prahalad, C.K. (1993) Strategy as Stretch and Leverage. *Harvard Business Review*, (March-April), p75-84.
Hardy, C., Palmer, I. & Phillips, N (2000) Discourse as a strategic Resource. *Human Relations*, 53 p1227-1248.
Harnden, R.J. (1989) Outside and Then: an interpretative approach to the VSM. In: Espejo, R. & Harnden, R.J. (eds.) *The Viable System Model: interpretation and applications of Stafford Beer's VSM*. Chichester: John Wiley & Sons.
Hendry, J (2000) Strategic Decision Making, Discourse, and Strategy as Social Practice. *Journal of Management Studies*, 37 p955–978.
Hendry, J. (2000) Strategic Decision Making, Discourse, and Strategy as Social Practice. *Journal of Management Studies*, 37(7) p955-977.
Herrmann, P. (2005) Evolution of Strategic Management: the need for new dominant designs. *International Journal of Management Reviews*, 7(2) p111–130.
Hoskisson, R.E., Hitt, M.A., Wan, W.P. & Yiu, D. (1999) Theory and Research in Strategic Management: swings of pendulum. *Journal of Management*, 25(3) p417–456.
Jarzabkowski, P. & Seidl, D. (2008) The Role of Meetings in the Social Practice of Strategy. *Organization Studies*, 29(11) p391-1426.
Jarzabkowski, P. (2004) Strategy as Practice: recursiveness, adaptation and practices-in-use. *Organisational Studies*, 25(4) p529-560.
Jarzabkowski, P. (2005) *Strategy as Practice: an activity-based approach*. London: Sage Publications.
Jarzabkowski, P., Balogun, J. & Seidl, D. (2007) Strategizing: The challenges of a practice perspective. *Human Relations*, 60(1) p5-27.
Jarzabkowski, P., Giulietti, M. & Oliveira, B. (2010) *Building a strategy toolkit: lessons from business*. AIM Executive Briefing series. London: Advanced Institute of Management Research.
Kanter, R.M. (2009) Mergers That Stick. *Harvard Business Review*, (October) p121-125.
Kaplan, S. & Jarzabkowski, P (2006) Using Strategy Tools in Practice, AIM Working Paper, WP No. 047-Sep-2006, London: Advanced Institute of Management Research.
Karim, S. & Mitchell, W. (2000) Path-dependent and path-breaking change: Reconfiguring business resources following acquisitions in the U. S. medical sector 1978-1995. *Strategic Management Journal*, 21 p1061-1081.
Knights, D. & Morgan, G. (1991) Corporate Strategy, Organizations, and Subjectivity: a critique. *Organization Studies*, 12(2) p251-273.
Kransdorf, A. (1998) Corporate Amnesia. *European Business Review*, 98(6). [www.emeraldinsight.com/Insight/ViewContentServlet?contentType=NonArticle&Filename=Published/NonArticle/Articles/05498fab.008.html, accessed 11th June 2010]
Kwon, W., Clarke, I. & Wodak, R. (2009) Organizational Decision-Making, Discourse, and Power: Integrating Across Contexts and Scales. *Discourse & Communication*, 3(3) p273–302.
Laine, P.M. & Vaara, E. (2007). Struggling Over Subjectivity: a discursive analysis of strategic development in an engineering group. *Human Relations*, 60(1) p29-58.
Latour, B. (1987) *Science in Action*. Cambridge, Mass.: Harvard University Press.
Le Moigne, J.-L. (1977) *La theorie du systeme generate* [The theory of general systems]. Paris: Presses Universitaires de France.
Mantere, S. (2008) Role Expectations and Middle Manager Strategic Agency. *Journal of Management Studies*, 45 p294-316.
Maturana, H. (1970) Neurophysiology of Cognition. In: Garvin, P.L. (ed.) *Cognition: A Multiple View*. New York: Spartan Books.
Miller, D. & Friesen, P.H. (1977) Strategy making in context: ten empirical archetypes. *Journal of Management Studies*, 14 p259-280.
Miller, D. & Friesen, P.H. (1978) Archetypes of Strategy Formulation. *Management Science*, 24(9) p921-933.
Miller, D. (1993) The Architecture of Simplicity. *The Academy of Management Review*, 18(1) p116-138.
Miller, D. (1996) Configurations Revisited. *Strategic Management Journal*, 17(7) p505-512.
Mintzberg, H. (1979) *The Structuring of Organizations: A synthesis of the research*. Englewood Cliffs, N.J.: Prentice-Hall.

Mintzberg, H. (1980) Structure in 5's: A Synthesis of the Research on Organization Design. *Management Science*, 26(3) p322-341.
Mintzberg, H. (1994) The Fall and Rise of Strategic Planning. *Harvard Business Review*, (January-February) p107-114.
Mintzberg, H., Ahlstrand, B. & Lampel, J. (1998) *Strategy Safari: A Guided Tour Through the Wilds of Strategic Management*. London: FT Prentice Hall.
Pälli, P., Vaara, E. & Sorsa, V. (2009) Strategy as text and discursive practice: a genre-based approach to strategizing in city administration. *Discourse & Communication*. 3(3) p303-318.
Penrose, E.T. (1959). *The Theory of the Growth of the Firm*. New York: John Wiley.
Phelan, S.E., Ferreira, M. & Salvador, R. (2002) The First Twenty Years of the Strategic Management Journal. *Strategic Management Journal*, 23 p1161-1168.
Prahalad, C.K. & Hamel, G. (1990) The Core Competence of the Corporation. *Harvard Business Review*, (May-June), p79-91.
Priem, R.L. & Butler, J.E. (2001) Is the Resource-Based 'View' a Useful Perspective for Strategic Management Research? *Academy of Management Review*, 26(1) p22–40.
Ramos-Rodriguez, A.-R., & Ruiz-Navarro, J. (2004) Changes in the Intellectual Structure of Strategic Management Research: a bibliometric study of the Strategic Management Journal, 1980–2000. *Strategic Management Journal*, 25 p981–1004.
Ravetz, J.R. (1971) *Scientific Knowledge and its Social Problems*. Oxford: Oxford University Press.
Regnér, P. (2008) Strategy-as-Practice and Dynamic Capabilities: steps towards a dynamic view of strategy'. *Human Relations*, 61 p565–588.
Samra-Fredericks, D. (2003) Strategizing as Lived Experience and Strategists' Everyday Efforts to Shape Strategic Direction. *Journal of Management Studies*. 40 (1) p141-174.
Samra-Fredericks, D. (2005). Strategic Practice, 'Discourse'' and the Everyday Interactional Constitution of 'Power Effects'. *Organization* , 12 p803-841.
Star, S.L. (1989) The structure of ill-structured solutions: boundary objects and heterogeneous distributed problem solving. In: Gasser L, Huhns M.H. (eds) *Distributed Artificial Intelligence*, (vol 2). San Fransisco, CA: Morgan Kaufmann Publishers Inc.
Stein, E.W. (1995) Organisational Memory: review of concepts and recommendations for management. *International Journal of Information Management*, 15(2) p17-32.
Steinbruner, J.D. (1974) *The cybernetic theory of decision: New dimensions of political analysis*. Princeton, NJ: Princeton University Press.
Teece, D.J., Pisano, G, & Shuen, A. (1997) Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18(7) p509–533.
Thomson, J.D. (1967) *Organizations in Action*. New York: McGraw-Hill.
Vaara, E. (2010) Taking the Linguistic Turn Seriously: strategy as multifaceted and interdiscursive phenomenon. *Advances in Strategic Management*, 27 p29-50.
Vaara, E., Kleymann, B. & Seristö, H.(2004) Strategies as Discursive Constructions: the case of airline alliances. *Journal of Management Studies*, 41(1) p1-45.
Vaara, E., Sorsa, V. and Pälli, P. (2010) On the force potential of strategy texts: A critical discourse analysis of a strategic plan and its power effects in a city organization. *Organization*, 17(6) p685-702.
Von Foester, H. (1979) Cybernetics of Cybernetics. In: Krippendorff, K. (ed.) *Communications and Control in Society*. New York: Gordon & Breach.
Wernerfelt, B. (1984) A Resource-Based View of the Firm. *Strategic Management Journal*, 5(2) p171–180.
Wernerfelt, B. (1995) The Resource-Based View of the Firm: ten years after. *Strategic Management Journal*, 16 p171-174.
Whittington, R. (1996) Strategy as Practice. *Long Range Planning*, 29(5) p731-735.
Whittington, R., Molloy, E., Mayer, M. & Smith, A. (2006) Practices of Strategising / Organising: broadening strategy work and skills. *Long Range Planning*, 39(6) p615-629.
Winter, S.G. (2003) Understanding Dynamic Capabilities. *Strategic Management Journal*, 24 p991-995.
Wooldridge, B., Schmid, T. & Floyd, S.W. 2008. The Middle Management Perspective on Strategy Process: contributions, synthesis and future research. *Journal of Management*, 34 p1190-1221.
Zahra, S.A. & George, G. (2002) Absorptive Capacity: a review, reconceptualisation, and extension. *Academy of Management Review*, 27(2) p185-202.