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Making sense of the Resource-Based View?

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Making sense of the Resource-Based View?

ABSTRACT

The Resource Based View (RBV) of strategic management has been criticized for relying on inconsistent assumptions of rationality, and mutually inconsistent underlying hypotheses. In this paper, I outline how these critiques can be addressed by re-building RBV on a sense-making foundation. The core notions from sense-making of bounded cognition, retrospective sense-making, incrementalism, loose coupling, causal maps and organizational paradigm are introduced. These are then used to propose a re-construction of key RBV constructs, extending some conceptual discussions, and providing for a conceptually consistent formulation. Implications for the use of RBV as a theory and future research are discussed.

Introduction

This paper reviews some of the criticisms and limitations of the Resource-Based View (RBV) and discusses how articulating RBV with sense-making helps toward constructing a more robust theory and addresses the weaknesses and criticisms identified.

Over the past two-and-a-half decades, RBV has emerged as perhaps the most fruitful and controversial contemporary perspective in strategic management. It has fuelled the conversation within the field of strategy (Mahoney & Pandian, 1992) with numerous advances and arguments, and also some aporias.

In terms of advances, RBV research has been credited with restoring the balance between internal and external analysis in strategic management theory (Collis, 1991; Dierickx & Cool, 1989), RBV has been argued to provide the basis for a new theory of the firm (Conner, 1991), and it has been offered as a theory of competitive advantage (Barney, 1991, Peteraf, 1993), a theory of rents (Amit & Schoemaker, 1993), and a theory of value creation (Peteraf & Barney, 2003).

Arguments about RBV included Porter's (1991, 1996) critiques that the RBV did not address appropriately the question of explicating the processes by which advantage was created, and that activities were a more appropriate focus of analysis than resources. The theory of dynamic capabilities (Helfat & Peteraf, 2003; Teece, Pisano, & Shuen, 1997) has been introduced as an extension of RBV to incorporate a processual dimension and a better understanding of how advantage is gained and maintained over time. Although not presented as such, it constitutes a reply to Porter's arguments against the static nature of RBV. Proponents of the RBV have also been criticized for poorly defining the core constructs of the theory (Foss & Knudsen, 2003) a critique that triggered Peteraf and

Making sense of the Resource-Based View?

Barney's (2003) refining of their assumptions and arguments, leading to a firmer and more precisely detailed formulation of RBV as a theory of value creation. RBV scholars have been criticized for failing to agree on the definition of key variables and constructs, leading to inconsistent presentations of theory (Bromiley, 2005; Priem & Butler, 2001). RBV has been criticized for resorting to unobservable variables, thus making empirical research and validation problematic (Godfrey & Hill, 1995). RBV has also been under attack for proposing tautological arguments because resources are defined in terms of their performance outcomes and thus not empirically testable (Priem et al., 2001), which drew a response from Barney (Barney, 2001b) describing how some of the RBV variables (value, rarity, imitability) could be operationalized and empirically tested. The emphasis on the creation of customer value (exogenous to the firm) in Peteraf & Barney (2003) was also advanced as an argument against the tautology claim.

Finally, RBV has been analyzed as containing several aporias. The assumption of bounded rationality has been identified as inconsistently applied: on the one hand managers make boundedly rational decisions leading to resource heterogeneity, but at the same time RBV conceptualizes markets at equilibrium a situation where firms optimize, thus assuming substantive rationality (Bromiley, 2005). Similarly, the articulation of RBV with evolutionary approaches (Barney, 2001a: 646-647) leading RBV to embrace dynamic capabilities and routines (Montgomery, 1995) sits ill at ease with market equilibrium (Bromiley & Papenhausen, 2003; Lengnick-Hall & Wolff, 1999). These inconsistencies in the internal logic of RBV have prompted calls to incorporate more rigorous behavioral assumptions and greater precision in the articulation between concepts (Bromiley, 2005; Foss, 2003). Although some elements of articulation between

Making sense of the Resource-Based View?

RBV and behavioral theory have been formulated (Amit et al., 1993; Johnson & Hoopes, 2003), and between RBV and evolutionary economics (Nelson, 1991; Winter, 2003) much work remains to be done.

In this paper, I argue that efforts to develop RBV into a more robust theory can be helped by building on insights from the sense-making perspective (Weick, 2001). Sense-making appears to be a strong candidate on three counts: it incorporates extensive behavioral constructs, it articulates individual and collective levels of cognition, and it is an evolutionary perspective compatible with mainstream evolutionary theories of the firm in economics (Nelson & Winter, 1982). In the first section of the paper, some of the core sense-making concepts pertinent to RBV are presented. In the second section, I discuss how these concepts can be used as a foundation for RBV arguments.

Sense-making: key concepts

The sense-making perspective conceives “organizations as collections of people trying to make sense of what is happening around them” (Weick, 2001: 5). This is apparently quite different from RBV where firms are seen as bundles of resources (Spanos & Lioukas, 2001). One way in which to resolve this apparent contradiction could be to argue that people are possibly a firm’s most precious resource (Barney, 1986a; Winter, 1987). However, this argument is only partly satisfactory for it ignores the second half of Weick’s definition: people are not passive resources waiting to be utilized, they are actively trying to make sense of their surroundings. This adds two further notions to theorizing organizations in the sense-making perspective, First, sense-making introduces explicitly a social dimension to organizational behavior (“collections of people”).

Making sense of the Resource-Based View?

Second, the intentionality of actors is highlighted as a key behavioral driver: people are not merely reactive to events and their actions can be self-directed. Intentionality and social interaction are key sense-making constructs that can be used to provide robust behavioral foundations to RBV: in the rest of this paper I will use sense-making as a starting point from which to (re)construct RBV arguments. In the remainder of this section, key sense-making concepts are presented, and foundations for establishing RBV arguments are laid. For the purposes of the present discussion, sense-making concepts and themes can be organized under two headings: bounded cognition, and social interaction. Each is examined in turn.

Bounded cognition

The sense-making perspective fully acknowledges the influence of Simon's (1957) notion of bounded rationality, and the processual approach initiated by March & Simon (1958) and Cyert & March (1963) (Weick, 1979: 20-21). In this view, human beings think rationally, but boundedly so, due to perceptual and cognitive limitations. The substantive rationality of classical economics hypothesized that people could maximize decision-making outcomes because they had perfect information, could anticipate precisely and reliably the consequences of action, and would systematically compare all alternatives using consistent criteria. Boundedly rational people have incomplete/imperfect information, fragmentary knowledge of consequences, and do not systematically compare all alternatives (Simon, 1957). The literature dealing with bounded rationality in evolutionary economics tends to explore and highlight the differences between the

Making sense of the Resource-Based View?

substantive rationality posited in mainstream micro-economics theory and various forms of bounded rationality (Chaserand, 2003; Radner, 2000).

The sense-making literature takes the thinking about bounded rationality in a different, but complementary direction. It acknowledges the ways in which bounded rationality differs from substantial rationality and goes on to explore the cognitive processes involved under bounded rationality. For this reason, the sense-making perspective can be said to pay more attention to “bounded cognition” (Jarzabkowski, 2004; Potts, 2001) than bounded rationality. Cognition is bounded by “brackets” or schemas (Weick, 1979: 153-155): mental structures that select and accept information, and direct action. These mental structures are constructed over time through experience, which becomes instantiated in cause maps tacitly memorized, and schemas that drive individual perception and action are defined (Neisser, 1976). Similar phenomena can be observed at the collective level: the organizational paradigm consists of shared mental models, values and beliefs that explain the environment and how the organization can operate successfully (Johnson, 1988; Weick, 1995). In this respect, individual and organizational actions are in a large part driven by the tacit knowledge incorporated in the cause maps (Baumard, 1999).

Bounded cognition is an iterative process, schemas are re-built every time they are invoked, leading to incremental cognitive processes. Bounded cognition thus copes with the equivocality, richness, and complexity of the environment by selecting out information that is perceived to have low relevance, and by proceeding in small incremental steps. This increases the probability that action leads to unintended consequences (Perrow, 1984; Weick & Sutcliffe, 2001).

Making sense of the Resource-Based View?

Because bounded cognition operates in incremental iterative processes where actors have limited forward visibility, it does not easily accommodate the linear unfolding of intentions. Rather, bounded cognition assumes that actors presume logic in action, even when this logic is not immediately perceptible. This is a core assumption underlying Weick's definition of enactment as retrospective sense-making, captured by the phrase: "how can I know what I think until I see what I say?" (Weick, 1979: 133). The process of retrospective sense-making involves four stages linked by feedback loops (see Figure 1) and described as follows: 1) ecological change happens when a change in the flow of experience triggers the attention of the actor ("what"); 2) change is followed by enactment when actor(s) take(s) action to bracket the change and/or do(es) something which triggers the change ("I say"); 3) selection where schemas are invoked to make sense of the change ("I see what I say"); 4) retention where successfully enacted environments are memorized as new cause maps ("I know what I think"). The sense-making cycle is activated until a sensible interpretation of the environment has been generated, which may involve a change in cause maps.

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Insert Figure 1 about here

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Bounded cognition and retrospective sense-making lead to constructed environments. When perceptions are filtered, and cognition is driven by tacit knowledge and schemas, actors equipped with different filters, knowledge and schemas may construct very

Making sense of the Resource-Based View?

different interpretations of the same events (Allison, 1971). Further, because actors do not necessarily perceive every aspect of the environment and attribute cause-and-effect rationality *ex-post*, they can persist in systematic error: “when an actor attempts to determine what has occurred, his explanations may well be erroneous and he may persist in his nonadaptive responses” (Weick, 1979: 127). Bounded cognition and incremental processes lead to situations where optimization and maximization are highly improbable: because cognition is bounded it is difficult, and possibly impossible, to determine the optimum; incrementalism and limited visibility of the consequences of action make maximization equally elusive as actors engage in behaviors which have unintended consequences. The perspective of sense-making thus constructs a context where history matters: the way in which bounded cognition unfolds in the present is inextricably linked to and influenced by past experience, for good or ill.

Social interaction

Organizations as collections of people trigger attention as economic institutions but also as social constructs. First, the notion reminds us that organizations do not exist without people. Second, organizations come to life through the interactions between the actors that populate them: in other words, double interacts are the building blocks of organizing (Weick, 1979). A double interact occurs when an action by actor A elicits a specific response by actor B (interact) which in turns triggers a response from A (double interact). As organizational members can be in relation with multiple organizational actors by virtue of their roles and positions, organizations can be described as networks of interlocked behaviors. Following, organizations and structures are continuously created

Making sense of the Resource-Based View?

and re-created through the activation of interlocked behaviors (Jarzabkowski, 2004). Conceiving of organizations as networks of interlocked behaviors highlights the potential fragility of organizations: as organizations are re-constructed on an ongoing basis, they require access to resources in order to maintain themselves (Weick, 1979; Pfeffer & Salancik, 1978).

Double interacts are initiated and repeated for multiple purposes. Double interacts are means to coordinate collective action and effect division of labor in organizations, a major benefit of collective action over individual efforts. Double interacts also lend reliability and predictability to organizational behavior when considered together with the schemas and cause maps of bounded cognition: through experience, A learns how B will respond, and vice-versa. With one limitation: because each time an interaction is initiated, it is re-created and therefore it becomes susceptible to change and variation (Feldman, 2004).

Double interacts provide a sense-making foundation to organizational routines, but in a way that differs from Nelson & Winter's (1982) original conceptualization which relied more on tacit knowledge than bounded rationality (Foss, 2003). In a sense-making perspective, double interacts as foundations for routines rely as much on the tacit knowledge embedded in cause maps and schemas as it does on bounded cognition: routines are organizational devices to economize on cognitive efforts. Further, the sense-making perspective acknowledges the inertia built in routines that lends them reliability and predictability, but at the same time also identifies the potential for variation and change that comes with the re-construction of interactions every time they are invoked by organizational actors (Feldman & Pentland, 2003). Indeed, a sense-making view of

Making sense of the Resource-Based View?

organizations highlights that change cannot be reduced to an isolated, programmed, and purposeful event, rather that it is a permanent state of organizations -though not necessarily exhibiting constant intensity (Weick & Quinn, 1999).

Another characteristic of organizations highlighted by the network of double interacts perspective is that most organizations, and arguably all those that are resilient, are loosely coupled systems (Weick, 1976; Weick et al., 2001). Loosely coupled systems have the advantage of adaptability, flexibility, persistence over tightly coupled systems, and may be cheaper to run because they diminish the need for detailed coordination. Conversely, “loose coupling also carries connotations of impermanence, dissolvability, and tacitness all of which are potentially crucial properties of the ‘glue’ that holds organizations together” (Weick, 1976: 3). Loose coupling is a reminder of the potential fragility of organizations mentioned earlier, and that the glue that holds organizations together appears to be those shared mental models and tacit knowledge that constitute organizational paradigms (Johnson, 1988; Nonaka & Takeuchi, 1995). Double interacts as ways of effecting division of labor play a crucial role in loosely coupled systems: double interacts allow for intention and action to reside in separate persons, sometimes even persons located in different organizational sub-systems, and geographical locations. This imposes nontrivial communication constraints between co-workers in order to effect well coordinated collective action. Intentions and actions can be decoupled when: intentions are equivocal, the consequences of action are unknown, the means by which intentions translate into action are unclear or conflictual, intentions are not known at the time of action, there are multiple and potentially conflicting intentions (Weick, 1976: 15). Thus, organizations as loosely coupled networks of double interacts are potentially rife

Making sense of the Resource-Based View?

with unintended consequences and causal ambiguity. Which both have implications to inform RBV: unintended consequences resulting from loose coupling reduce the potential for optimization, and causal ambiguity plays a key role in firm heterogeneity and resource inimitability.

Conceiving of organizations as loosely-coupled systems of interlocked behaviors highlights their potential for social complexity. However, firm boundaries are not necessarily clearly drawn (Weick, 1979) and interlocked behaviors extend beyond firm limits to encompass its supply chain partners, allies, and stakeholders in strategic networks (Gulati, Nohria, & Zaheer, 2000). Thus a sense-making perspective is compatible with an institutional perspective, where organizations are embedded in networks of relationships (Granovetter, 1985; Oliver, 1997). The institutional perspective is of note here as organizational practices and policies are influenced by institutional norms of legitimacy (DiMaggio & Powell, 1983) which do not necessarily lead to economic efficiency and optimization (Kogut, 2000).

In this section, we have briefly reviewed key constructs from the sense-making perspective: bounded cognition, causal maps, schemas and tacit knowledge, incrementalism, retrospective sense-making, constructed environments, double interacts and routines, evolutionary change, loosely coupled systems, and social embeddedness. In the next section of this paper, I examine how these constructs can contribute to provide foundations for a re-formulation of the RBV that avoids logical inconsistencies and contradictions.

Toward a sense-making re-thinking of RBV

The Resource-Based View is predicated on explaining performance differences between firms. The basic argument is that value creating resources and capabilities are heterogeneously distributed among firms, opening up the possibility of above average returns. The distribution of resources and capabilities can remain durably heterogeneous, due to failures in strategic factor markets, resource scarcity and uncertain imitability (Barney, 1986b; Barney, 1991). One of the key hypotheses of RBV is that the presence of strategic resources¹ is sufficient to establish the potential for competitive advantage: there is a direct relationship between the resources and performance. As mentioned in the introduction, there is a logical contradiction in the RBV's treatment of bounded rationality, hypothesized to justify heterogeneity, and the direct link between resource presence and performance which implies optimizing behavior. The proposition that firms can maintain sustained competitive advantage, central in RBV and even further in the dynamic capabilities/dynamic RBV extensions (Helfat et al., 2003; Teece & Pisano, 1994), implies further logical inconsistencies: assuming that over the long run firms can identify *ex-ante* which capabilities will be valuable in the future is consistent with assumptions of substantive/calculative rationality (Radner, 2000) not bounded rationality, whilst the dynamic process of continuous change implied by the dynamic RBV sits ill at ease with assumptions of market equilibrium and optimization.

In this section, I provide an outline of how RBV can be usefully re-constructed from a sense-making foundation. I begin with bounded cognition as the cause of competitive advantage and the relationships between enacted environments and firm heterogeneity,

¹: Strategic resources satisfy the VRIO criteria (Value, Rarity, Inimitability, Organization) as defined by Barney (1995).

Making sense of the Resource-Based View?

then how loose coupling can generate causal ambiguity, how shared cause maps and organizational paradigms can be sources of competitive advantage and disadvantage, and conclude on how sense-making offers a fresh perspective on the influence of organizational structures in RBV.

Bounded cognition, enacted environments, heterogeneity and competitive advantage

Wernerfelt described as follows his dissatisfaction with strategy formulation based exclusively on external analysis, and thus his motivation for writing his seminal *Strategic Management Journal* paper (Wernerfelt, 1984): “if all MBAs learn to identify the ‘most attractive’ niche, who will get it and why will competition not destroy the attractiveness?” (Wernerfelt, 1995: 172). As mentioned before the RBV resolution of this problem is based on imperfect factor markets, uncertain imitation, and so on. A sense-making perspective suggests a different answer: there may be no such thing as “the ‘most attractive’ niche”! Entrepreneurs have time and again demonstrated that it is possible to launch highly profitable ventures in industries long considered unattractive (Kim & Mauborgne, 2005). In other words: “if people imagine that the environment is separate from the organization and lies out there to be scanned so that effective responses can be produced, then they will spend their resources outfitting themselves with the equivalent of high-powered binoculars to improve acuity. If people recognize that they create many of their own environments, then all of that effort to improve acuity is irrelevant” (Weick, 1979: 178-179). Bounded cognition and incrementalism lead managers to develop idiosyncratic perceptions of their environments, and to differentiate their firms in ways not expected by competitors who have not (could not have) enacted the same vision.

Making sense of the Resource-Based View?

The enactment of created environments is an incremental process which involves resource commitments and experiential learning over time. As noted earlier, bounded cognition and incrementalism thus highlight how past actions constrain present and future firm behavior. In other words, sense-making provides cognitive underpinnings to path dependency, which has been identified as a source of firm heterogeneity among firms by RBV scholars (Dierickx et al., 1989). Further, these cognitive foundations to path dependency help explain how path dependency is also a source of causal ambiguity and uncertain imitability (Reed & DeFillippi, 1990) which sustain firm heterogeneity over time. The *ex-post* attribution of cause-and-effect relationships in sense-making leave room for misinterpretation and unintended consequences: “practitioners often conclude that effectiveness is the result of rational, orderly action. That conclusion is often an artifact of hindsight -we know what happened before we look back to discover why it happened. What we fail to see when we use hindsight are the experiments, false starts, and corrections that enabled people to learn and improve” (Weick, 2001: 38).

Path dependency, durable firm heterogeneity, uncertain imitability and causal ambiguity are necessary conditions for performance differentials by firms. However, the sense-making perspective reminds us that these are the outcomes of bounded cognition. Competitive advantages are not caused by market failures, it is because human beings are boundedly rational that managers make differentiated choices as to which course of action to follow, leading to durable heterogeneity in resource endowments for firms, and hence to some performing better than the rest.

The sense-making perspective thus highlights how difficult it is to gain competitive advantage as managers cannot know with certainty *ex-ante* which resources or

Making sense of the Resource-Based View?

capabilities will be useful in the future (another formulation is that the resources that can be identified are probably so obviously valuable that many firms will attempt to secure them and thus they may not be sources of performance differentials). Incrementalism and path dependency also highlight the bounds of organizational learning and adaptation: there is evidence that managerial cognition and cognitive biases influence the direction of search processes and learning (Levinthal & March, 1993; Tripsas & Gavetti, 2000). In other words, competence renewal processes cannot be expected to lead reliably and consistently on evolutionary paths that will sustain competitive advantage. Further, the decision to invest or not in capabilities renewal processes which are not themselves costless involves managerial trade-offs that are not the focus of discussion in mainstream dynamic capabilities research (Winter, 2000, 2003). The dynamic RBV thus appears to overlook the implications of bounded cognition and to underestimate the costs, trade-offs and difficulties involved in organizational adaptation and learning (Bromiley, 2005).

In conclusion, bounded cognition at the same time creates the conditions of superior performance, and precludes the possibility of a 'rules to riches', but not for the market-based reasons invoked by mainstream RBV scholars (Barney, 2001b). Rather, the invention of a 'rule for riches' implies the ability to identify valuable strategic resources *ex-ante*, in other words it assumes substantive rationality.

Loose coupling and causal ambiguity

Strategic management researchers have argued on numerous occasions that gaining competitive advantage and exploiting Ricardian rents depends on the ability of firms to create "isolating mechanisms" (Rumelt, 1984). RBV research suggests that such

Making sense of the Resource-Based View?

mechanisms may arise from causal ambiguity (Lippman & Rumelt, 1982; Reed et al., 1990). However RBV research seldom investigates how firms generate causal ambiguity. Indeed, causal ambiguity is considered paradoxical in RBV because as it limits resource imitation by competitors, it also impedes resource leverage by the firm (King & Zeithaml, 2001). Through the notion of loose coupling, the sense-making perspective offers what appears to be a powerful tool to investigate these issues².

Weick (1976: 15) sketches out a situation where intention and action appear loosely coupled to outsiders, but not to insiders: “if there is an intention A which implies selecting actions X and Y, and there is also an intention B which implies selecting actions X and Y, then it is possible that under both presence and absence of intention A, action X will be selected. Given these circumstances, an observer will falsely conclude that this relationship is undeterminant”. However, in such a case, the relationships between A, B, C, and D are void of ambiguity to organizational members, but impenetrable to outside observers.

Further, King and Zeithaml (2001) note that competencies may be causally ambiguous due to differentiated managerial perceptions across hierarchical levels, and advance this situation as a justification of the causal ambiguity paradox. From a sense-making perspective, such perceptual differentiations may be expected in loosely-coupled systems (Weick, 1979: 168) and even encouraged as an efficient way to effect a cognitive division of labor (Nonaka et al., 1995) and operate efficiently a distributed cognitive system (Tsoukas, 1996; Weick & Roberts, 1993). This may again make life more difficult for the outside observer, but need not be for firm actors: that a capability be poorly understood at

²: Indeed, the construct of “linkage ambiguity” proposed by King and Zeithaml (2001: 77) appears to be synonymous with loose coupling.

Making sense of the Resource-Based View?

some level of the organization does not imply that it cannot be leveraged. The notion that the top management of the organization should be capable of understanding everything that happens at lower levels appears to imply a command-and-control managerial style that is not conducive to high performance in contemporary organizations (Grant, 1996b; Weick, 1995). The existence of a shared organizational paradigm may provide the sufficient coherence to organizational action through tacit knowledge (Baumard, 1999). Organizations are not just bundles of resources, they are not just systems of activities (Bromiley et al., 2003; Porter, 1996), they are also social contexts where converging contributions are assembled and leveraged (Nonaka & Konno, 1998). Loosely coupled systems are held together by shared taken-for-granted values (Weick, 1995) and this may well be the main reason why social complexity is also a source of causal ambiguity (Barney, 1991).

Shared cause maps, paradigms and strategizing

As noted in the previous paragraph, shared cause maps and organizational paradigms are sources of efficiency in managing socially complex organizations and may generate causal ambiguity for outside observers. However, the influence of organizational paradigms extends beyond this. First of all, shared taken-for-granted values and beliefs can operate as a very economical mode of control (Ouchi, 1980), which can be more cost efficient than formal mechanisms, and thus potentially a source of competitive advantage. However, because these shared values are wholly tacit, they are also difficult to change and may be the source of strategic rigidities (Leonard-Barton, 1992) or lead to strategic drift (Johnson, 1988): culture can be a double-edged sword.

Making sense of the Resource-Based View?

Although some RBV research has acknowledged and investigated the influence of organizational paradigms on strategic decision-making (e.g.: Collis, 1991: 52), much RBV research, perhaps due to an ambiguous engagement with bounded rationality, tends to downplay that influence. An important feature of organizational paradigms is how they are maintained and influenced by the organization's dominant coalition (Laroche & Nioche, 1998) and with this comes substantial negotiation and political bargaining (Cyert et al., 1963; Johnson, 1988). By assuming away the political bargaining activities that accompany strategic decision making, RBV researchers may be portraying organizations as more actionable than they really are. The sense-making perspective offers arguably a richer and more reliable picture, where managerial decision making may be more equivocal than assumed in rational models (Laroche, 1995): if the behavioral perspective suggests that potentially every employee can be a decision-maker (Simon, 1957), the perspective of retrospective sense-making suggest that decisions are not just about choices among alternatives, but can also be understood as self-fulfilling prophecies (Weick, 1979) or as occasions to make sense of action (Brunsson, 1990). And these alternative understandings of decisions do not make them less valuable than the traditional view of decision-as-choice: if shared values constitute the glue that holds loosely-coupled organizations together, then a judicious utilization of decisions as justifications may play a vital role in organizational maintenance.

Structuring organizations and competitive advantage

Barney (1995) pointed out that the “question of organization” was crucial in establishing competitive advantage: “a firm must be organized to exploit its resources and

Making sense of the Resource-Based View?

capabilities”. Failing to do so may lead to a disconnect between resources and performance (Coff, 1999). However, organizational structures appear to have been granted a somewhat ambiguous status within RBV: structures are quasi-resources, necessary for the firm to operate, but not sufficient to confer competitive advantage (Barney, 1995). According to Grant (1996a: 377-378) organizational structures are dual: on the one hand are hierarchies of “authority and control”, the traditional formal organizational structures that presumably Barney was referring to; and on the other hand are “architectures of capabilities”, hierarchies of knowledge integration. These two types of structures are independent from each other: “in most companies, hierarchies of capabilities do not correspond closely with the authority-based hierarchies as depicted by organizational charts”. This duality of structures appears to mirror the distinction between fixed resources and the capabilities that used to operate them, a distinction that parallels Dierickx and Cool’s (1989: 1506) “bathtub metaphor” opposing stocks and flows.

This presentation of structures appears non-controversial. Indeed, a similar distinction between state descriptions and processes is also used in the sense-making perspective. Weick (1979: 46-47) suggests that organizational performance is dependent on the good coordination of “blueprints” and “recipes”. However, the exploration of organizational structures within RBV empirical research appears to have ignored the capability/flow/recipe dimension of structures to concentrate when investigating the relationships between types of resources and structural choices. Argyres (1995, 1996) and Markides and Williamson (1994) arrive at opposite conclusions in their research. These contradictory results suggest that formal structures in themselves may not be sufficient to shed enough light on how resources are properly exploited by the organization. The

Making sense of the Resource-Based View?

distinction between hierarchy of authority and hierarchy of competence may be a useful one, but the sense-making approach suggests that the factors enabling efficient resource exploitation are not in the structures themselves, but in how they are articulated one with another. Here again, it appears that RBV's ambivalent attitude towards managerial rationality surfaces: ignoring the problem of articulating these two structural dimensions is equivalent to assuming that this articulation is unproblematic, or governed by substantively rational choices.

In this section, I have outlined how a sense-making perspective can be used to provide cognitive foundations to central RBV constructs, suggest improvements to the theory, and highlight inconsistencies to be investigated by future research. In the conclusion I discuss the implications for management and research.

Conclusion: making sense of the RBV

A richer theory?

Reconstructing RBV from a sense-making foundation arguably allows for a richer theory and the construction of theoretical representations that are closer to the practicalities of managerial action. The sense-making perspective leads to a conceptualization of competitive advantage as more fragile and elusive than RBV scholars and managers would perhaps wish. Thinking of organizations as social structures maintained and re-created through interactions directs the spotlight on hitherto under-researched in RBV, perhaps due its original roots in economics: people. The complementary notions of bounded cognition and incremental action provide behavioral foundations to durable

Making sense of the Resource-Based View?

resource heterogeneity, path dependency, and performance differences among firms. The concepts of loosely coupled systems and organizational paradigm provide insightful and robust underpinnings to uncertain imitability and causal ambiguity. Together, these constructs form the theoretical core of RBV (Bromiley, 2005). However, this conceptual core has been re-founded without resorting to any of the economics' assumptions traditionally found in RBV research, in particular market equilibrium and optimization. This may attract the criticism that the sense-making approach leads to something that has little in common with the "original" or "true" RBV. In turn this also leads to question the necessity of anchoring strategic management research in economics.

Questioning the economic foundations of RBV?

The 1991 *Strategic Management Journal Winter Special Issue* intended to stimulate the dialogue between strategic management and economics (Schendel, 1991). And, considering the impressive body of strategic management research incorporating economics concepts and methodology that has been produced ever since, one can suggest that the dialogue has proven to be extremely fruitful and valuable to strategy scholars. Indeed, the import of economics concepts and methods into strategic management research has been argued to benefit our field in that it brought a unifying paradigm and increased rigorousness in research (Foss, 1996).

However, our discipline, and RBV research in particular, may perhaps be victim of this very success. Lockett and Thompson (2001: 724) noted that during the 1990's, RBV had experienced a period of 'normal science'. This may well signal a worrying trend. Indeed, Lockett and Thompson's assessment of the evolution of RBV research seems to invalidate

Making sense of the Resource-Based View?

the anticipation of Rumelt, Schendel and Teece (1994: 1) that "as an interdisciplinary subject, strategic management may never enter an era of 'normal science', but will probably always offer shifting perspectives and relatively incommensurable research approaches".

Conceptualizing RBV as a branch of economics, as done by Barney (1991), Conner (1991), Peteraf (1993), Liebeskind (1996), and, following their lead, many other researchers, is certainly a commendable endeavor, in the sense that results from management research might valuably inform future economics research -inasmuch as results from economics research, in turn, may yield insights of value to management scholars and practitioners. This trading of knowledge should be considered a fruitful basis for dialogue and exchange between disciplines. Lockett and Thompson (2001) indeed attribute much of the evolution of modern micro-economics' focus, for example the heightened attention devoted to such phenomena as path-dependency, to the rise of RBV, despite the fact that few strategic management papers are ever quoted by economics scholars³.

Unfortunately, Schendel's statement that "economics does not share the same perspective with strategic management, nor do they as disciplines share identical interests. If those differences are recognized it is possible for the fields to positively see their intersection, not as substitutes, but as reinforcing their separate interests" (1991: 3) seems to have been long forgotten. Further, Rumelt et al. (1994: 25-39) argued that the conversation of

³: Lockett and Thompson (2001) note that this may be due economists' reluctance to read journals outside their traditional field. In turn, this suggests that if researchers investigating economics conceptualizations of RBV have the ambition to influence economics thinking, they should attempt to publish *also* in economics journals.

Making sense of the Resource-Based View?

strategic management research should be open to voices from other disciplines, including economics, but also organizational sociology, and political science.

The exploratory conversation between RBV and sense-making engaged in the present essay is an attempt to demonstrate the value of a pluralistic attitude to the conversation of strategic management. A broad-based exchange of views may lead to challenging established notions, and thus avoid the traps of 'normal science'.

RBV as a framework for strategizing?

Theories can be viewed in at least three ways:

- As analytical tools that help explain and predict the outcomes of phenomena, and in the case of strategic management, organizational success and failure (Rumelt et al., 1994);
- As interpretive tools that enable us to understand and make sense of an otherwise confusing world (Astley, 1985)
- As tools to act in the world, shape our actions, and strategize (Tsoukas, 1998)

Adopting a pluralistic epistemological approach to strategic management (Seth & Thomas, 1994), these three uses of theory are complementary rather than mutually exclusive.

Weick (1979: 35-37) highlighted that there were trade-offs between accuracy, generality, and simplicity in theorizing, and that pursuing two of these qualities was necessarily at the expense of the other. I would like to suggest that the same trade-offs may apply to the three views of theory and that there are trade-offs in producing theories in terms of prediction, understanding, and action. Indeed this seems to be acknowledged by Friedman (1953) when he argued that theories could be useful, even if their assumptions

Making sense of the Resource-Based View?

were disconnected from practical realities, so long as they provided usable predictions and guidance for action.

To date, RBV has been much criticized for its limited ability to provide any reliable predictions (Godfrey et al., 1995; Priem et al., 2001). However, the usefulness of RBV appears to be greater in terms of generating understanding and providing a structure for strategizing. As Barney (2001b: 49) put it: "resource-based logic can help managers more completely understand the kinds of resources that help generate sustained strategic advantages, help them use this understanding to evaluate the full range of resources their firm may possess, and then exploit those resources that have the potential to generate sustained strategic advantage".

The underlying logic of the sense-making perspective which articulated a presumption of logic with a retrospective process of attribution of cause-and-effect may do little to improve the predictive quality of RBV, but may help enhance its contribution to understanding and strategizing. And this is consistent with the perspective of bounded cognition: if at heart RBV is a theory investigating value creation, competitive advantage, and rents, it may not have a strong predictive power by its very nature.

As Schendel eloquently put it: "strategy's audience is the manager and its doctrine combines a belief in creativity and innovation with philosophical pragmatism -it is concerned with wealth creation, not by an 'actor' in some mathematical model, but reality, in a concrete world of people, laws, institutions, beliefs and uncertainty" (1991: 2-3). The sense-making approach crucially allows people, beliefs and uncertainty to re-enter the scope of RBV theory.

Making sense of the Resource-Based View?

RBV certainly has great potential for helping managers and firms to improve their practices and performance. The very flexibility of this framework makes it quite adaptable to specific firm/industry situations. RBV suggests pointed questions to managers ("what are our core competences?", "how can we create more value for stakeholders with the resources we have in our current environment(s)?", etc...), and it provides a methodology for evaluating resources and competences with respect to external demands. Further, the foundation of RBV on sense-making suggests that, because competitive advantage is a fragile position, firms should frequently revisit and question the beliefs they hold (and have built over time) about their core competences and how they can generate value.

But the realization of this potential may also require that RBV researchers re-examine their research practices.

Making RBV Research More Practical

Aharoni criticized traditional research practices in strategic management in the following terms: "business strategy researchers using IO methodology attempt to propose plausible generalizations based on carefully designed empirical research or to prove hypotheses based on a large population of firms. In doing so, researchers gain mathematical elegance, statistical rigor, parsimony and persuasive power. Unfortunately, the price of this elegance is ignoring the task of identifying the lessons one can learn from the particularly successful or unsuccessful outliers" (1993: 43).

However, one could argue that there is considerable value in large sample, statistical research, in that, for example, it provides reference points against which outlying cases

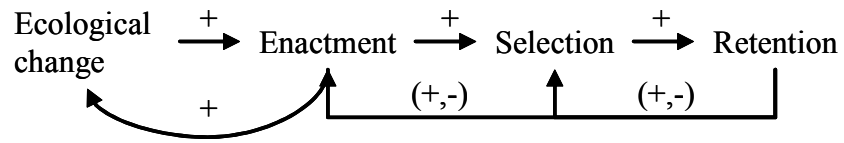
Making sense of the Resource-Based View?

can be analyzed: competitive advantage is a comparative concept, to identify above-average performance, one needs an average to begin with, and that can only be provided for by quantitative research. But quantitative approaches may not be sufficient to provide insights useful to understanding and strategizing.

Qualitative, case-based, methods have been argued to be a useful and necessary complement to quantitative methods in RBV research (Godfrey et al., 1995; Hitt, Gimeno, & Hoskisson, 1998; Levitas & Chi, 2002; Rouse & Daellenbach, 1999, 2002;). A sense-making perspective on RBV research confirms that view. Case study research, allowing to explore in detail the interplay of resources and competences within firms, shedding light on the influence of corporate ideologies, beliefs, routines and how and when firm sub-units are loosely- or tightly-coupled, is a source of valuable insights for it leads to results that reflect the complexity of organizations (Weick, 1995: 172-173).

Further, it can be suggested that RBV research, to really achieve its potential and prove useful to managers should also further stretch to "action research" (Reason & Bradbury, 2001) where inquiry is completed by participation. Please note that I do not advocate here that RBV scholars should act as management consultants and draw plans telling managers what they should do. Rather, the notion of participative inquiry implies that scholars should engage a more intimate dialogue with managers about how to apply the RBV framework to their specific circumstances, and bring their knowledge and understanding to bear when advising managers. "We're trying to make it possible for people to have better conversations so that they can see their circumstances more richly" (Weick, 1979: 240) could become the motto of RBV scholars -and, by extension, of all strategic management researchers.

Figure 1: Enactment as retrospective sense-making



(adapted from Weick, 1979: 132)

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