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Abstract

This paper argues that not only Edith Penrose, but also Harold Demsetz should be seen as a dominant source of inspiration for RBP scholars, that these two crucial influences hold different and even conflicting views of the economic process, and that they helped found different research areas and research approaches within the RBP. Based on this discussion, the paper argues that the conflicting legacies of Penrose and Demsetz threathen the coherence of the RBP, that a central problem in the RBP is the lack of understanding of the process of resource-creation which tends to give the perspective a retrospective character, but that work on technological innovation and change, framed in the broader theoretical context of Austrian and evolutionary economics, may help remedy this shortcoming.

Keywords

Evolutionary economics, competences, ressource-based perspective.

JEL classification:

L1, L22, L14, M1

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I. Introduction[1]

This chapter is, among other things, taken up with discussing the sources of what has now become generally known as "the resource-based perspective on strategy" (henceforth, "the RBP"). Although the chapter should have some appeal to intellectual historians, it is not an exercise in the doctrinal history of the strategy discipline *per se*. The primary motivation of the chapter rather is to understand the present condition of the RBP, and to speculate on its possible future paths of development, *in terms of* the historical conditioning that some crucial contributions have imposed on the perspective. In other words, it is an examination of intellectual path-dependence[2] in the context of strategic management and the theory of the firm, but also an attempt to briefly suggest how resource-based scholars may avoid some less fortunate future paths of development. Thus, one the general level the chapter sets the stage for much of the discussion in the rest of this book, and links directly up with the argument of some of the other chapters (particularly Metcalfe's and Roberts') by arguing that the RBP should take more seriously its Penrosian heritage and adopt an explicit process mode of analysis.

It is well-known that in fact the RBP is conventionally (e.g., Mahoney and Pandian 1992; Knudsen 1996) traced back to the seminal, but for a long time neglected, contribution by Edith Penrose, *The Theory of the Growth of the Firm*. However, in its *modern* manifestation the RBP may conveniently (if admittedly also somewhat arbitrarily) be dated to the year 1984, which is the year of publication of Birger Wernerfelt's "A Resource-Based View of the Firm", and Richard Rumelt's "Towards a Strategic Theory of the Firm". These papers were quickly followed by a spate of important work by such writers as Barney, Montgomery, Dierickx, Cool, Amit and others[3] and the last decade of strategy research is difficult to characterize as anything else than a wildfire of interest in resources, capabilities, competencies, etc. Thus, in little more than a decade, the RBP has emerged as arguably the dominant contemporary approach to strategy (content) research – indeed, as perhaps the new orthodoxy in mainstream strategy research. The

[1] I am grateful to Professor Jay B. Barney for valuable comments on an earlier draft. The present chapter is essentially an extension of the reasoning in Foss (1996a), and repeats some of the insights and conclusions of that paper.

[2] In analogy to the work of David (1985) and Arthur (1989).

[3] The important contributions are reprinted in Foss (1997).

perspective's appeal to academics may be rationalized by its relative[4] ability to combine analytical rigor with apparent managerial relevance, and doing so more successfully than alternative approaches (Foss 1996b).

However, as has recently been pointed out (Schulze 1994; Mahoney 1995; Foss 1996a), the approach is far from being homogenous. As an illustration, one may compare the enormously successful 1990 *Harvard Business Review* paper, "The Core Competence of the Corporation" by C.K. Prahalad and Gary Hamel, and the 1982 *Bell Journal of Economics* paper, "Uncertain Imitability: An Analysis of Interfirm Differences Under Competition", by Stephen Lippman and Richard Rumelt. Nothing seems to relate these two papers, apart from a shared emphasis on firm resources – everything else is different –, and it is not just that they are written for different audiences. However, both papers are usually seen as important contributions to the RBP.

Generalizing this observation, we may point to a broader schism in contemporary resource-based thought of which these two papers are merely representatives; a schism that is both thematic and disciplinary. Thus, while those resource-based contributions that have taken their cues from Prahalad and Hamel are "soft", in these that they are taken up with issues learning, innovation, competence building, entrepreneurship, vision, etc. in a non-formal way, there is also a set of resource-based contributions that explicitly rely on equilibrium economics and, perhaps accordingly, do not treat the more dynamic phenomena that are centerstage in the "softer" approach. Instead, the interest centers around the distribution of returns in economic equilibrium. In this chapter, I shall talk about "*Mark I RBP*" (the equilibrium, economics oriented version) and "*Mark II RBP*" (the process oriented version).

Rather than further diagnosing this schism, I shall in this chapter dig a little deeper and be concerned with (some of) its causes. The claim here is that ultimately, we need to look at the pre-history of the RBP in order to understand present tensions within the RBP, and in order to speculate on how the perspective may develop in the future. Many contributions have discussed the pre-history of the RBP[5] and there is considerable consensus on the issue. According to this consensus, the basic resource-based insights were present in the work of particularly Edith Penrose (1959), but also to some extent in the work of Philip Selznick

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[4] Relative to other streams in strategic management.

[5] Conner (1991) is without any doubt the most meticulous discussion; see also Mahoney and Pandian (1992), Foss (1996a), and Knudsen (1996).

(1957) and Alfred Chandler (1962). More impetus was given in the work of Kenneth Andrews (1971), but then resource-based ideas were temporarily swept aside by an all-consuming interest in industry analysis as a foundation for strategy. The revival of those resource-based ideas that had been present in what is essentially the mainstream of American strategy thinking were then undertaken in the 1980s by the younger resource-based theorists mentioned above.

In this chapter I link up with this received view by discussing the work of Penrose as an important source of inspiration for the RBP. However, I add to the received view by discussing the work of UCLA-economist, Harold Demsetz as an influence on par with that of Penrose.[6] In fact, Demsetz' influence may have been even stronger on the emerging RBP than Penrose's and also more direct: it is almost certain that Demsetz influenced the early important resource-based theorists, such as Rumelt and Barney, through their shared institutional affiliation with the University of California, Los Angeles, and many of Demsetz' ideas are directly reflected in the work of these important scholars.

However, more than strict doctrinal history is involved: I also argue that the Demsetzian influence has tended to lock-in the intellectual development of the RBP. Specifically, Demsetz' influence meant that the basic discipline underlying the development in the early 1980s of the RBP was equilibrium economics, albeit of a sophisticated kind. This has resulted in the RBP (Mark I), exemplified by the work of Rumelt and Barney. In many respects, the RBP (Mark I) is in conflict with the RBP (Mark II), exemplified by the work of Prahalad and Hamel, which I here reconstruct as manifesting the process oriented (or, if you like, evolutionary) influence stemming from Penrose.[7]

In order to place the discussion in context, I begin by providing a brief sketch of the resource-based approach(es) (section II), before moving on (in section III) to argue that

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[6] Admittedly, the Demsetz influence is less visible than the Penrose influence; for example, Demsetz is being quoted less by RBP scholars. Thus, the admittedly speculative part of my story is that Demsetz to some extent has been a "sleeping partner" in the evolution of the RBP.

[7] Because I want to concentrate on the Demsetz vs Penrose story, I disregard the other possible reasons for intra-RBP heterogeneity, such as the greater practice connection of the RBP (Mark II) as contrasted with the more academic orientation of the RBP (Mark I). See Spender (1993) for interesting reflections on the history of the strategy field that highlights the tensions between academic ambitions and relevance for managerial practice. Similarly, I disregard other possibly important influences, such as the work of Schumpeter and the Austrians.

- not only Penrose, but also Harold Demsetz should be seen as a dominant source of inspiration for RBP scholars,
- that these two crucial influences hold different and even conflicting views of the economic process, and
- that they helped found different research areas and research approaches within the RBP.

Based on this discussion, it is then (in section IV) argued that

- the conflicting legacies of Penrose and Demsetz threathen the coherence of the RBP,
- that a central problem in the RBP is the lack of understanding of the process of resource-creation which tends to give the perspective a retrospective character, but
- that work on technological innovation and change, framed in the broader theoretical context of Austrian and evolutionary economics, may help remedy this shortcoming, as argued by several contributions to this book.

II. The Resource-Based Approach: A Brief Sketch

Simplifying somewhat, we may say that there are two main research themes in the RBP, namely, first, analyses of the conditions for sustained competitive advantage, and, second, diversification studies. They are presented *seriatim* in the following.

A. Competitive Advantage

The resource-based analysis of (sustained) competitive advantages may be seen as starting out from two basic empirical generalizations, namely that 1) there are systematic differences across firms in the extent to which they control resources that are necessary for implementing strategies, and 2) that these differences are relatively stable. The basic structure of the RBP emerges when these two generalizations are combined with fundamental assumptions that are to a large extent derived from economics. Among these assumptions are that 3) differences in firms' resource endowments cause performance differences, and 4) that firms seek to increase their economic performance.

The overall managerial implication is that firms may secure a strong performance by building or otherwise acquiring certain endowments of resources. More generally, the overall objective that informs the RBP is *to account for the creation, maintenance and renewal of competitive advantage in terms of the resource side of firms*. The fundamentals of the resource-based analysis of the conditions for sustained competitive advantage are basically simple (Peteraf 1993): in order that resources yield a sustained competitive advantage, they should meet four basic criteria:

• *Heterogeneity* – i.e., in lieu of efficiency differences across resources, there cannot be any differences in the rents firm earn (in fact, there cannot be any rents at all). This indicates that resource heterogeneity, leading to efficiency differences and therefore rents, is a basic necessary condition for competitive advantage.[8]

• *Ex ante limits to competition* – i.e., resources have to be acquired at a price below their discounted net present value in order to yield rents. Otherwise future rents will be fully absorbed in the price paid for the resource (Demsetz 1973; Barney 1986; Rumelt 1987).

• *Ex post limits to competition* – i.e., it should be difficult or impossible for competitors to imitate or substitute rent-yielding resources. As Dierickx and Cool (1989) clarify, there are in successful firms a number of mechanisms at work that often makes it hard for competitors to copy the sources of competitive advantage of a successful firm. For example, there may be "causal ambiguity", which means that competitors confront difficulties ascertaining precisely how a bundle of resource contributes to success.

• *Imperfect mobility* – i.e., the resource should be relatively specific to the firm. Otherwise, the superior bargaining position that is obtained from not being tied to a firm can be utilized by the resource (or the resource's owner) to appropriate the rent (or, at least a large portion of the rent) that the resource helps create. In other words, the key question to ask here is, Who captures value from the resource, and how may the firm capture more value from this resource?

[8] An alternative formulation – put forward by Barney (1991) – is that with homogenous resources, all firms can implement the same strategies; hence, no firm can differentiate itself from other firms, and nobody will have a competitive advantage.

Several things are noteworthy about this basic analysis. First, it explicitly draws on economics, more precisely on basic, equilibrium price theory.[9] For example, in connection with ex ante limits or barriers to competition, these limits are evaluated relative to a full information, competitive equilibrium (Barney 1986). It is clearly the case that equilibrium assumptions play a key role in many contributions to the RBP. This is the case in Peteraf (1993), in which the concept of Ricardian rent is developed using efficiency differences across firms under competitive equilibrium as a benchmark. And it is also the case in Barney (1986), in which the finance concepts of strong and weak efficiency are (implicitly) used to elucidate the reasoning behind the concepts of perfect factor markets and factor market imperfections. Indeed, the very concept of sustained competitive advantage is often defined in equilibrium terms: it is that advantage which lasts after all attempts at imitation have ceased. This has the implication, unfortunately, that sustained competitive advantage has no meaning outside equilibrium. Second, the above analysis actually tells us very little of direct value for understanding the more dynamic and managerial aspects of competitive advantage, such as how to build new resources, coordinate existing ones, etc.

B. Diversification

Although the basic story is much refined now, the basic RBP analysis is not novel, as Penrose (1959) essentially laid the foundations here (her work is discussed in more detail later). What is new relative to Penrose, however, is 1) the point that diversification may in turn help building *new* resources (cf. Markides and Williamson 1994), 2) the insight that it is necessary to bring transaction costs into the story (Teece 1980), 3) the more rigorous form the argument has now taken, and 4) the many empirical tests that have been carried out (e.g., Montgomery and Wernerfelt 1988).

Diversification studies may arguably be where the resource-based approach has had its greatest impact. The commonly accepted theory of diversification, both in economics and strategy research, is roughly the resource-based theory (Montgomery 1994). The basic story is the following one: firms gradually accumulate excess resources as a (non-intended) consequence of their normal operations. Tasks become routinized and this releases human resources, such as managerial resources; some physical resources are indivisible, which means that may not be fully

[9] More specifically, as I later argue, it is the Chicago-UCLA brand of price theory on which the basic resource-based analysis of sustained competitive advantage is based.

exploited in their present use; etc. In principle, these resources could be traded over markets; however, the presence of transaction costs will often hinder trading excess resources. As Teece (1980) clarifies, this is particularly likely to be the case if the resources in question are knowledge resources. An important implication of the theory is that firms earn decreasing average rents as they diversify more widely (Montgomery and Wernerfelt 1988).

C. Varieties of the Resource-Based Approach: Equilibrium or Evolution?

As already indicated, there is substantial evidence – such as the absence of terminological agreement – that the RBP is far from being a coherent perspective. It is a set of contributions published over the last approximately 15 years (plus some important precursors to these contributions) that share important basic themes. But, apart from that, the contributions that may be seen as constituting the RBP are undeniably quite heterogeneous in terms of, for example, which disciplines they draw on (economics, sociology, psychology, decision theory).

The argument here is that it makes sense to distinguish two different versions of the RBP, the RBP (Mark I) and the RBP (Mark II), and that existing differences between these are to a very large extent a matter of whether one seeks to address and include dynamic – or better, *evolutionary* – factors, or instead relies on standard economic theory.[10] It is a choice, in short, between equilibrium or evolution; "evolution" and "evolutionary" here being meant to refer to whether such concepts as irreversibility (e.g., in the form of path-dependence and learning) and novelty (e.g., in the form of unanticipated innovations) are included in the analysis at some level (cf. Loasby 1991; Foss, Knudsen and Montgomery 1995).[11]

While various dynamic phenomena (innovation, organizational learning, resource-accumulation, competence-building, the development of mental models of the management team, etc.) come first in the RBP (Mark II) (Prahalad and Hamel 1990; Hamel and Heene 1994; Pisano and Teece 1994), statics comes first in the RBP (Mark I). That is to say, in the latter approach one begins by clarifying and examining the conditions that must obtain in order for resources to yield rents in equilibrium (e.g., Barney (1986) or Peteraf (1993) or Wernerfelt (1995)), before going on to

[10] The "two resource-based approaches"-argument is also made in Schulze (1994), Mahoney (1995), and Foss (1996a), who all point to the static/dynamic distinction in rationalizing this argument. It should be mentioned that while all evolutionary theories are dynamic, not all dynamic theories are evolutionary (for example, economic growth theory is not evolutionary).

[11] The use of the word "evolutionary" in this paper is deliberately broad, and does not carry any necessary connotations to the biological analogies that were so harshly criticized by Penrose (1952).

discuss, for example, the renewal of competitive advantage (supposing one ever gets this far). Thus, process issues enter subsequently, or are simply suppressed. In the RBP (Mark II), equilibrium is at most a theoretical benchmark; an abstraction without any apparent practical value.

If this analysis is correct, resource-based scholars would at least to some extent seem to be caught on the horn of a dilemma – should one emphasize realism and perhaps sacrifice some analytical rigor and clarity, or *vice versa*? – and to confront difficult questions, such as the issue of how to combine process analysis (including firm growth) and sustainability of competitive advantage. In the next section, I explore some sources of the schism in resource-based thought by looking at the contributions of two crucial precursors of the RBP, Edith Penrose and Harold Demsetz.

III. Two Crucial Precursors: Penrose and Demsetz

A. Edith Penrose on the Theory of the Growth of the Firm

It is a commonplace that many of the great works of economics have been interpreted in widely different ways, and normally in both a mainstream, neoclassical way and in a non-neoclassical way.[12] This is also the case with Edith Tilton Penrose's (1914 -1996) major work, *The Theory of the Growth of the Firm*. Thus, Paul Rubin (1973) rationally reconstructed Penrose's work in terms of finding the best solution to the dynamic optimization problem of balancing the development of new resources (using existing resources) and the use of existing resources directly in production. On the other hand, Penrose's work has been heavily cited by heterodox economists (e.g., Loasby 1991)[13], and her foreword to the third edition of *The Theory of the Growth of the Firm* (published in 1995) leaves little doubt that her sympathies were with more heterodox strands of economics. As she noted there: "One of the primary assumptions of the theory of the growth of firms is that 'history matters'; growth is essentially an evolutionary process and based on

[12] Think of the work of Marx, Marshall and Keynes, to mention just the most obvious.

[13] It has even been argued that the economist whose work lies closest in many respects to Penrose's is the idiosyncratic, but often brilliant Thorstein Veblen (Foss 1998).

the cumulative growth of collective knowledge, in the context of a purposive firm" (1959[1995]: xiii).

The basic reasoning of 1959 book is very well-known and shall be only briefly summarized: Firms are collections of productive resources that are organized in an administrative framework which partly determines the amount and type of services that the resources yield. As they go along with their productive operations, firms – in Penrose particularly the management team – obtain increased knowledge of the services that may be obtained from resources,. The (related) results of such learning processes is, first, the expansion of the firm's "productive opportunity set" (the opportunities that the firm's management team can see and can take advantage of) and, second, the release of managerial excess resources that can be put to use in other, mostly related, business areas. Since the opportunity costs of excess resources are zero, there will be a strong internal incentive for such diversification. Because the firm's expansion to a large extent builds on its "inherited" resources, and because there "... is a close relation between the various kinds of resources with which the firm works and the development of the ideas, experience and knowledge of its managers and entrepreneurs" (Penrose 1959: 85), this expansion will tend to take place in areas of competence that are close to the firm's existing areas of competence.

Undeniably, the basic skeleton of some of Penrose's ideas may be cast in the language of equilibrium and (dynamic) optimization characteristic of mainstream economics. For example, one may argue that at any given point of time there is a set of product market applications (business areas) that maximize the rents on the firm's existing resources and corresponds to an organizational equilibrium (á la Montgomery and Wernerfelt 1988), and a part of the optimization problem are the information costs that the firm's management team confronts (Casson 1997).

However, in Penrose's own view, her theory constituted a powerful critique against certain aspects of the neoclassical theory of the firm (if not necessarily against neoclassical economics in general). In the neoclassical theory of the firm, there is "... no notion of an *internal* process of *development* leading to cumulative movements in any one direction" (1959: 1), a notion that is absolutely crucial for understanding firm development. Rather, growth is simply a matter of adjusting to the equilibrium size of the firm. But if services are produced endogenously (and continuously) through various intra-firm learning processes involving increased knowledge of resources, "new combinations of resources" (1959: 85), and an expanding productive opportunity set, there is no equilibrium size.

There is clearly what we today would recognize as a Schumpeterian (change "from within") and Veblenian (cumulative causation) flavor to such arguments. But it is more than a matter of dressing up arguments in fancy Schumpeterian garb. Penrose's basic vision of the competitive process in general, and of the firm in particular, is disequilibrium-oriented and subjectivist,[14] and, normally overlooked, it stresses entrepreneurship, flexibility, change and uncertainty. "In the long run", Penrose explains,

> "the profitability, survival and growth of a firm does not depend so much on the efficiency with which it is able to organize the production of even a widely diversified range of products as it does on the ability of the firm to establish one or more wide and relatively impregnable 'bases' from which it can adapt and extend its operations in an uncertain, changing and competitive world" (1959: 137).

Thus, seemingly paradoxically, flexibility is just as much a message of the analysis as specialization is. The paradox vanishes when it is realized that specialization is specialization in terms of the underlying resource-base (rather than products) and that such specialization may be fully consistent with reacting to new business opportunities. In fact, as Penrose makes clear, there may be a considerable option value associated with even a specialized resource-base:

> "A firm is basically a collection of resources. Consequently, if we can assume that businessmen believe there is more to know about the resources they are working with than they do know at any given time, and that more knowledge would be likely to improve the efficiency and profitability of their firm, then unknown and unused productive services immediately become of considerable importance, not only because the belief that they exist acts as an incentive to

[14] Penrose's subjectivism is particularly apparent in her adoption of Kenneth Boulding's concept of "the image": "... the environment is treated ... as an 'image' in the entrepreneur's mind of the possibilities and restrictions with which he is confronted, for it is, after all, such an 'image' which in fact determines a man's behaviour" (1959: 5). In other words, the environment is basically "enacted" to use Weick's terminology. See also Roberts (1997) for a critique of the inability of resource-based scholars to come to grips with these aspects of Penrose's work.

> acquire new knowledge, but also because they shape the scope and direction of the search for knowledge" (Penrose 1959: 77).

Thus, firm development is essentially an evolutionary and cumulative process of "resource learning" (Mahoney 1995), in which increased knowledge of the firm's resources both help create options for further expansion and increases absorptive capacity (Cohen and Levinthal 1990). Therefore, a major focus of *The Theory of the Growth of the Firm* lies in the *application* of resources, something that has been missed by many resource-based theorists who only consider the issues of the terms at which resources were acquired (Barney 1986) and/or whether they are protected (Peteraf 1993), but forget that it is the actual application, and not the mere possession, of resources that create revenue (Spender 1994).

To sum up, Penrose's seminal work is indeed a founding contribution to the RBP. However, her basic, and too often overlooked, themes – flexibility in an uncertain world, organizational learning as an evolutionary discovery process, path-dependency, the vision of the management team, entrepreneurship, etc. – do not seem to square easily with the RBP (Mark I), that is, the version of the RBP which utilizes equilibrium constructs and builds directly on price theory. And it is indeed the contention here that this strand of the RBP finds its most important source of inspiration, not in the work of Penrose, but rather in the sort of Chicago-UCLA price theory, notably represented by the work of Harold Demsetz.

B. Harold Demsetz on Industrial Economics

The work of Harold Demsetz (b. 1930) has fallen within a number of economic sub-disciplines. Thus, he is (with Ronald Coase and Armen Alchian) a pioneer in the development of the theory of property rights, on the theory of the firm, and an important contributor to the theory of industrial organization. He is often thought of as an important member of the Chicago school of antitrust analysis, although most of his career has taken place at the University of California, Los Angeles. Although there is a considerable degree of coherence to Demsetz' whole *oeuvre,* it is primarily in his capacity as a contributor to industrial organization economics that I shall consider him here.

Much of Demsetz' work (see, in particular, Demsetz 1974) in this area has been concerned with critically discussing doctrines developed by economists associated with the so-called "Structure-Conduct-Performance" school in industrial organization (Bain 1959; Scherer 1980). According to this school, there is a strong causal flow from the basic structure of an industry (e.g., number of firms, entry barriers), to their conduct (e.g., firms" pricing policies) to performance (e.g., how large is the deadweight welfare loss). Specifically, Demsetz has subjected conventional thinking on entry barriers and on the link between industry structure and performance to critical scrutiny. These critical discussions have all been based on the conviction that models that do not feature information costs – costs of search, of processing information, of communication, etc. – are likely to seriously distort our understanding of the industrial landscape, and, in particular to lead policy analysis astray (Demsetz 1969). On the other hand, including information costs in economic models, Demsetz argues, will reveal that many of the practices[15] that have traditionally been condemned as monopolistic abuses are in reality efficiency-enhancing arrangements (Demsetz 1982)

Thus, Demsetz was probably the first economist to develop an understanding of barriers to entry as essentially informational in nature (and to argue that this understanding should influence antitrust policies). For example, advertising has often been singled out as an important (strategic) entry-barrier. And, in fact, in a model that does not feature information costs, it is difficult to rationalize advertising as anything else than an instrument that is used in the pursuit of monopolistic advantages. But an information cost perspective allows for the understanding that advertising and brand loyalty are rational responses to an underlying scarcity of information. Thus, the real entry barrier is not the advertising, but rather the information costs – and it is not all clear that antitrust authorities should be concerned about these costs.

This focus on information asymmetries and costs as the real entry barriers is clearly related to the overall resource-based idea that the primary barriers that hinder the equalization of rents across are informational in nature.[16] But there are many other similarities. In order to elucidate these, I shall quote extensively from a single paper, namely Demsetz' 1973 article, "Industry Structure, Market Rivalry, and Public Policy". It is here that we encounter the most explicit anticipations of what would eventually become the RBP.[17] The paper is taken up with discussing the observation that a concentrated industry structure is often accompanied by high returns. Basically, there are two hypotheses that may rationalize this. The first one is that presented by the SCP paradigm: a high degree of market concentration eases coordination among oligopolists and thereby the

[15] Notably various "vertical restraints".

[16] For example, causal ambiguity, as in Lippman and Rumelt (1982).

[17] It should be noted that this paper is often cited in contributions to the RBP, for example, Conner (1991).

setting of a price approximating the profit-maximizing monopoly price. The other hypothesis is essentially an efficiency hypothesis, according to which the co-existence of high returns and high returns in an industry is caused by more efficient firms growing at the expense of their smaller rivals, contributing to an increase in concentration, and earning higher returns than these smaller rivals. Demsetz tests these two hypotheses in an ingenious way, finds support for the efficiency hypothesis, and draws the appropriate policy conclusions.

In the beginning of the paper, Demsetz launches one of his favorite themes, namely that economists have prone to seeking monopoly explanations for virtually all deviations from perfect competition. However, in a world of uncertainty and positive information costs, many of these deviations do not reflect monopolistic practices, but efficient responses to scarcity. For example, advertising and credit rationing are rational practices in a world of positive information costs. More importantly, the presence of information cost, uncertainty and less-than-fully-mobile factors may imply that "... a differential advantage in expanding output develops in some firms" (Demsetz 1973: 1). And the returns (rents) that such differential advantages may yield

> "... need not be eliminated soon by competition. It may well be that superior competitive performance is unique to the firm, viewed as a team, and unobtainable to others except by purchasing the firm ... The firm may have established a reputation or goodwill that is difficult to separate from the firm itself ... Or it may be that the members of the employee team derive their higher productivity from the knowledge they possess about each other in the environment of the particular firm in which they work, a source of productivity that may be difficult to transfer piecemeal" (p.2).

Note the emphasis placed on heterogeneity, on different resource-bundles as the sources of heterogeneity and therefore differential efficiencies that in turn are the basis for differential competitive advantages. Note also the emphasis placed on team-effects, such as the learning effects that arise from the continuity of association between inputs.[18]

All this is as clear an anticipation of the resource-based emphasis on heterogeneity as the basic condition of competitive advantage. But there is more, for Demsetz has also, in the same article, interesting things to say about what is essentially the resource-based conditions of "ex post limits to competition" and "ex ante limits to competition" (cf. Section II above). With respect to the

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[18] Demsetz (1988) elucidates this and builds a theory of the firm on this basis. This later paper has also become a standard reference in the RBP literature.

former, Demsetz says, in connection with a discussion of the emergence of superior efficiencies, that

> "One such enterprise happens to "click" for some time while others do not. It may be very difficult for these firms to understand the reasons for this difference in performance or to know which inputs to attribute the performance of the successful firm. It is not easy to ascertain just why G.M. and I.B.M. perform better than their competitors. The complexity of these organizations defies easy analysis, so that the inputs responsible for success may be undervalued by the market for some time" (p.2).

In other words, firms may enjoy long-lived rents because would-imitators confront difficulties ascertaining "just why" some firms perform better than other, difficulties that are explicitly traced to "complexity". In the last sentence of the above quotation, Demsetz also signals that the valuation of factors on their relevant markets influences returns. He goes on to observe that

> "...inputs are acquired at historic cost, but the use made of these inputs, including the managerial inputs, yields only uncertain outcomes. Because the outcomes are surrounded by uncertainty and are specific to a particular firm at a particular point in its history, the acquisition cost of inputs may fail to reflect their value to the firm at some subsequent time. By the time their value to the firm is recognized, they are beyond acquisition by other firms at the same historic costs, and, in the interim, shareholders of the successful or lucky firm will have enjoyed higher profit rates" (p.2).

Per implication, competitive advantage can only be obtained from resources that are acquired at a price below their discounted present value – the essential point in an important resource-based paper by Barney (1986) (see also Rumelt (1987) for the same reasoning). Moreover, certain ex ante barriers to competition – notably the presence of information costs on input markets – imply that divergences between the prices of resources and the discounted present value of those resources may arise.

Sufficient evidence has now been presented to allow us to infer that Demsetz should indeed be reckoned as among the important precursors of the RBP, particularly with respect to the analysis of the conditions of sustained competitive advantage, the first key research theme within the RBP.

In *this* respect, he is more important than Penrose, for she does not really inquire into these conditions in her 1959 book.[19] An important issue is whether these ideas were first developed by Demsetz, and then independently discovered by later resource-based strategy theorists. Or, is there a more direct route through which Demsetz' ideas may have spread? In the following, I argue that there may in fact have been such a direct route.

Jay Barney, who is one of the prime movers behind the emergence of the resource-based approach in the 1980s, recently argued that the rational reconstruction approach to the history of the RBP – according to which the development of the RBP can be dated back to Selznick and Penrose and progressing rather smoothly from there – simply is a "myth" (Barney 1995). Instead, Barney argued that the modern RBP largely owes its origin to the interaction – mainly at UCLA – between such economists and strategy scholars as William Ouchi, Michael Porter, Richard Rumelt, Oliver Williamson, Sidney Winter, and Barney himself. Only subsequently came the realization that much of the early work of Selznick, Penrose, Chandler and Andrews anticipated modern resource-based thought. Barney's critique is a welcome warning towards too eagerly ascribing to older writers views that they only by twisting facts can be seen as anticipating, but it also leaves out a number of important considerations.[20] Space is too limited here, however, to criticize Barney's account in detail. Instead, I shall focus on his emphasis on the UCLA environment.

From the interaction at UCLA emerged two seminal contributions that came to play a founding role for the emerging RBP (Mark I) in the 1980s. The first was Lippmann and Rumelt's 1982 paper, "Uncertain Imitability: An Analysis of Interfirm Differences Under Competition", in which they demonstrate that it is possible to sustain an equilibrium with firms that earn different returns (rents) (because they have different productive efficiencies) as long as imitation barriers hinder the equalization of rents across firms. The intuition of this paper is pure Demsetz, and the paper may be seen as formalization of key ideas in, for example, Demsetz (1973). The other seminal paper is Barney's 1986 *Management Science* article on "Strategic Factor Markets", in which Barney argues that imperfections in input markets are a necessary condition for competitive advantage; otherwise, the discounted present value of resources will be fully capitalized in their acquisition

[19] On the other hand, Demsetz has had very little to say about Penrose's major theme, namely firm growth through efficient diversification.

[20] For example, it neglects David Teece' s (1980) and Birger Wernerfelt's (1984) role and the fact that both Wernerfelt and Teece in their early papers explicitly draw on Penrose's work.

price. Again, this a restatement (and extension) of reasoning that was present much earlier in Demsetz' work.[21]

These facts should be combined with the emphasis given in Barney's account to the UCLA environment and with the fact that it was in the UCLA economics department that Demsetz taught while Barney and Rumelt occupied positions in UCLA's Anderson Graduate School of Management. Perhaps there was no direct personal influence, but only an exposure on the part of Barney and Rumelt to a more general UCLA style of doing and thinking of economics – a style that was also represented by Benjamin Klein and Armen Alchian.[22] But the connections are too obvious to be merely spurious.

IV. Implications for the Resource-Based Perspective

A. Taking Stock

It is time to take stock on the above discussion. I have argued, first, that there are two key themes in the RBP, the analysis of sustained competitive advantage and the analysis of diversification. Second, it has been argued that the RBP actually exists in two different versions, a Mark I and a Mark II version, and that the difference between these is largely a difference in terms of the extent to which dynamic factors are treated, as in the underlying analytical frameworks (equilibrium vs evolution). Third, I have traced the key themes of the RBP *and* the two different types of theorizing existing within the RBP to the work of the two crucial precursors, Penrose and Demsetz. Thus, Demsetz' influence not only manifests itself in the equilibrium style of analysis pursued by RBP (Mark I) theorists, but is also manifest in the way that the theme of sustained competitive advantage is handled within the RBP. Penrose's entirely different and non-neoclassical, non-equilibrium emphasis on

[21] What directly prompted the writing of that paper, however, was an earlier paper by Rumelt and Wensley, "In Search of the Market Share Effect": "In this paper, Rumelt and Wensley argued that there is a market for market share, and that this market is quite efficient. They have a sentence in that article that says something like 'this argument, of course, depends on rational expectations'. My 1986 Management Science article was an effort to understand the implications of this sentence" (Barney, 1996).

[22] That is so is indicated by the following comment by Professor Barney: "In terms of the Demsetz connection, I knew him, but not well. Both Dick [Rumelt] and Bill Ouchi knew him better. Kathleen [Conner] knew him pretty well ... We were certainly aware of his work ... Depsite this, I would not say that Demsetz had a strong personal influence on those of us who were at UCLA. In fact, if anyone had this influence, it was Armen Alchian ... While the personal Demsetz connection was not there (at least for me), there is no doubt that the equilibrium approach used by Demsetz and Alchian was a very strong influence at UCLA ... if economically oriented faculty wanted to have any credibility at all at UCLA, they

learning, vision, entrepreneurship, flexibility, etc., on the other hand, is clearly manifest in the RBP (Mark II), that is, the work that has to a large extent taken its cue from the work of Prahalad and Hamel. In other words, Demsetz and Penrose's seminal and widely different work have laid the foundations for diverging paths of development within the RBP. This may be interesting as a matter of intellectual history; but what does it matter to the future development of the RBP, not to speak of practical concerns?

B. Implications

The Demsetz influence on the RBP (Mark I), I have argued, helped align strategy and economic equilibrium. As Spender (1993: 42) noted in a related context, "The notion of rents is simply a way of bringing the homogeneity of economic thought together with the heterogeneity of the real world". For example, if information costs are positive, we can have an equilibrium with firms of different efficiencies and rents (and therefore different competitive advantages), and we can perform the usual comparative static exercises in this setting (Demsetz 1973, 1989b; Lippman and Rumelt 1982). Moreover, equilibrium, in the eyes of writers such as Barney, is a useful benchmark, one that can be used for analyzing factor market imperfections and sustained competitive advantage. The latter, recall, is defined as the advantage that lasts after all attempts at imitation have ceased (Barney 1991: 102). So a sort of zero imitation, Nash equilibrium is utilized as a yardstick to define and understand (sustained) competitive advantage.

While it cannot be denied that in some ways the alignment of equilibrium and strategy has proven fruitful, it should also be recognized that it made difficult the incorporation of the Penrosian legacy – with its emphasis on organizational learning, entrepreneurship, etc. – in the more formal, economics-inspired body of resource-based thought. The result has been the emergence of what has here been called the Mark I and Mark II versions of the RBP, with the latter addressing the more dynamic issues of resource-creation, but doing so in such broad and sometimes diffuse terms that their real contribution to the furthering of the RBP may be questionable.

As a result of this dichotomization of resource-based research, there is clearly a lack of a clear and coherent treatment of dynamic factors: while the RBP (Mark II) does address dynamic issues, it does so in rather diffuse and incoherent terms, and while the RBP (Mark I) is clear and coherent, there is no real treatment of dynamics. Therefore, the RBP does not in its present version(s)

had to do equilibrium kind of analyses – because of the standards set by Demsetz, Alchian and Klein.

adequately theorize the mechanisms underlying the creation of new resources – a feature that tends to give the perspective a distinctly retrospective orientation. More specifically, the perspective cannot adequately frame questions relating to corporate renewal, organizational learning, resource-building, etc. It is true, of course, that the RBP (Mark I) can to a limited extent frame such questions by treating, for example, capabilities for corporate renewal as rare, hard to imitate, etc., so that these capabilities are seen as strategic resources. But this ex post analysis is clearly begging the normative and practical issue of how firms may build such capabilities. This problem is arguably particularly troublesome for the future evolution of the RBP, for dynamics (broadly conceived) is all the rage in the strategy (and organizational behavior) field(s) these days, as witness the recent enthusiasm about "hyper-competition", "organizational learning", "the knowledge-creating company", etc.

The underlying problem in this context is that there is no clear conceptual model or models of the endogenous creation of new resources to be found in the RBP. The same critique that Penrose directed against the neoclassical theory of the firm is also applicable to the RBP: there is "... no notion of an *internal* process of *development* leading to cumulative movements in any one direction" (1959: 1), Thus, while Demsetz (1973), Lippman and Rumelt (1982), and Barney (1986) provide a theory of rents in equilibrium, they actually tell us very little about how the heterogeneous conditions underlying differential rents arise.

Clearly, this has something to do with the role of equilibrium and the restrictive behavioral assumptions that normally accompany equilibrium models (such as admitting only maximizing rationality) in this sort of work. As many writers, including Penrose, have pointed out, a too firm commitment to equilibrium and optimization may seriously impede the development of models of endogenous change. Learning, innovation and entrepreneurial discovery activities involve per definition novelties in the sense of the acquisition or creation of novel knowledge – and such novelties are quite simply hard to force into an equilibrium straitjacket (Loasby 1991). Thus, one important reason why the RBP lacks a clear model of the endogenous creation of resources may simply be that equilibrium economics of the Demsetz variety has been such an important force in the development of the RBP. Instead, theorists have fallen back on what we may call "Big Bang Theories of Competitive Advantages" (Spender 1993: 45): competitive advantage is rationalized by pointing to an initial, unexplained event, such as sheer luck.

That was absolutely clear. This is one reason why I never found Penrose all that helpful" (Barney 1996).

C. Remedies

What the RBP needs, in the view taken here, is more agreement that the dynamic issues featured in such contributions as Prahalad and Hamel (1990) are crucial, that they should be approached in a more precise and analytical way, that economics may prove useful, but also that equilibrium and maximization may not always be the best tools for framing strategic issues. If this agreement does not obtain, there is a real danger that the RBP may split even more visibly, first, into a formal, stark, abstract branch strongly inspired by economics and gradually losing contact with managerial reality, and, second, an increasingly loose and free-wheeling branch where almost anything goes on the analytical level.

In general, it has been argued, there is a need for bringing process issues more directly into the focus of the RBP, and much of the neglect of such issues has to do with the influence of equilibrium economics on the RBP. Accordingly, it appears to be natural to turn towards economic theories that address process/disequilibrium issues, or, what may be called “market process theories”.

This is the approach taken by several of the contributors to this book; for example, Peter Roberts (1997), who rely on arguments from *Austrian economics* and emphasize the quality of entrepreneurial alertness (Kirzner 1973). Like Kirzner today, Penrose argued that “... the decision to search for opportunities is an enterprising decision requiring entrepreneurial intuition and imagination and must precede the ‘economic’ decision to go ahead with the examination of opportunities” (1959: 34). In such a view, it is misleading to reduce competitive advantage to luck or asymmetric information and to think of sustainability as a matter of the persistence of rents in equilibrium. Rather, sustainability becomes (also) a matter of continuous alertness to a stream of disequilibrium opportunities for profit. However, as argued elsewhere in more detail (Foss 1996a), it is ironic that Austrian economics, as a theory about the market process, has so very little to say about the arguably most important constituent element of the market process, namely the firm.

A processual approach that spans several level of analysis, including notably that of the firm, is evolutionary economics, which Metcalfe (1997) argues is able to further the RBP (see also Montgomery 1995; Foss 1996a; Teece et al. 1997). For example, evolutionary economics and the RBP (in both versions) are both characterized by emphasizing the fundamental heterogeneity of firms as a *necessary* starting-point for theorizing, but, in contrast to the RBP (at least in its Mark I version), evolutionary economics endogenizes the sources of heterogeneity. For example, evolutionary economists have cultivated an advanced understanding of the mechanisms of technological change – insights that may both help develop a more refined resource-based analysis of the environment and increase our understanding of the process of creation of new resources through innovation. Thus, notions such as "technological paradigms", "regimes", "technology systems", etc. provide an understanding of the environmental forces that changes the distribution of returns over time.

V. Conclusions

Any theoretical perspective carries with it an open horizon in the sense that we cannot exactly know in advance how the perspective will fare with respect to future problem-solving. However, where a perspective will go is constrained by where it has been in the past. In this chapter, I have argued that the influences of (the) two central precursors of the RBP have resulted in a split within the RBP in an economics-oriented and equilibrium-based version (Mark I), which reflects the influence of Harold Demsetz, and a disequilibrium-oriented version, which owes much more to the influence of Edith Penrose (Mark II).

Furthermore, the argument has been that unless a sort of alignment between these two different versions of the RBP is accomplished, there is a risk that they will develop even more strongly in their own distinct directions, the equilibrium branch becoming increasingly formal (possibly mathematical) and oriented towards mainstream economics, while the process oriented branch will increasingly draw on "softer" ideas and disciplines. As several contributions to this book indicate, this alignment may arguably be accomplished by drawing on Austrian and/or evolutionary economics, and by relating to work on organizational learning and technological innovation and change.

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