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The Resource-Based View: A Review and Assessment of Its Critiques

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The resource-based view (RBV) of the firm has been around for over 20 years—during which time it has been both widely taken up and subjected to considerable criticism. The authors review and assess the principal critiques evident in the literature, arguing they fall into eight categories. They conclude the RBV's core message can withstand criticism from five of these quite well provided the RBV's variables, boundaries, and applicability are adequately specified. Three critiques that cannot be readily dismissed call for further theorizing and research. They arise from the indeterminate nature of two of the RBV's basic concepts—resource and value—and the narrow conceptualization of a firm's competitive advantage. As their suggestions for this work indicate, the authors feel the RBV community has clung to an inappropriately narrow neoclassical economic rationality, thereby diminishing its opportunities for progress. The authors' suggestions may assist with developing the RBV into a more viable theory of competitive advantage, especially if it is moved into a genuinely dynamic framework.

Keywords: *resource-based view, sustained competitive advantage, neoclassical economics, Austrian economics*

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The resource-based view (RBV) has become one of the most influential and cited theories in the history of management theorizing. It aspires to explain the internal sources of a firm's sustained competitive advantage (SCA). Its central proposition is that if a firm is to achieve a state of SCA, it must acquire and control valuable, rare, inimitable, and nonsubstitutable (VRIN) resources and capabilities, plus have the organization (O) in place that can absorb and apply them (Barney, 1991a, 1994, 2002). This proposition is shared by several related analyses: core competences (Hamel & Prahalad, 1994), dynamic capabilities (Helfat & Peteraf, 2003; Teece, Pisano, & Shuen, 1997), and the knowledge-based view (Grant, 1996b).

Given its elegant simplicity and its immediate face validity, the RBV's core message is appealing, easily grasped, and easily taught. Yet the RBV has also been extensively criticized for many weaknesses. Critiques are valuable for advancing the RBV, for by exploring its limitations they imply where improvements might be made. Along these lines we categorize and assess the eight categories of critiques available so far, adding comments about their severity and impact.

Our analysis suggests the RBV's core message can withstand five of these critiques quite well, especially when the RBV's variables, boundaries, and applicability are more clearly specified. However, three threaten the RBV's status as a core theory. These concern the indeterminate nature of two concepts fundamental to the RBV—resource and value—plus there are problems with the RBV's narrow explanation of a firm's competitive advantage. As we argue, the common theme underlying these critiques is that the RBV has clung to an inappropriately narrow neoclassical economic rationality and has thereby diminished its opportunities for making further progress. Leveraging the critiques and the discussions they have provoked, we suggest directions for future theorizing and research. We argue that the way forward, perhaps, is to move the RBV into an inherently dynamic and subjectivist framework such as Penrose's (1959/1995).

The RBV and Its Critiques

The RBV developed as a complement to the industrial organization (IO) view with Bain (1968) and Porter (1979, 1980, 1985) as some of its main proponents. With its focus on the structure–conduct–performance paradigm, the IO view put the determinants of firm performance outside the firm, in its industry's structure. Being positioned against this view, the RBV explicitly looks for the internal sources of SCA and aims to explain why firms in the same industry might differ in performance. As such, the RBV does not replace the IO view; rather, it complements it (Barney, 2002; Mahoney & Pandian, 1992; Peteraf & Barney, 2003).

The RBV's core metaphor is Ricardian, for it stands on the heterogeneity and immobility of competitive capability-producing and rent-earning resources (Barney, 1991b). Firms are seen as atom-like entities aiming to gain above-normal profits in unmediated competition with other firms in a shared market. The RBV assumes firms are profit-maximizing entities directed by boundedly rational managers operating in distinctive markets that are to a reasonable extent predictable and moving toward equilibrium (Bromiley & Papenhausen, 2003; Leiblein, 2003). It accepts that information about the future value of a resource is asymmetrically distributed. If the firm's managers can estimate the future value of a resource

better than their competitors—or when they are simply lucky—this provides their firm with *ex ante* sources of SCA. Subsequently, the development of isolating mechanisms that prevent other firms from competing its above-normal profits away provides the firm with *ex post* sources of SCA (Mahoney, 1995; Rumelt, 1984). Given its focus on the resource as the firm's significant component and its uncomplicated view of firms as a bundle of these resources, the RBV is explicitly reductionist. It stands against holistic or emergent theories that liken firms to organisms with complex feedback-controlled mechanisms focused on boundary maintenance.

The RBV's principal development occurred between 1984 and the mid-1990s. After Wernerfelt's (1984) initial article, contributions were made by many scholars, most notably Rumelt (1984), Barney (1986a, 1986b, 1991a), Dierickx and Cool (1989), Conner (1991; Conner & Prahalad, 1996), Helfat (Castanias & Helfat, 1991; Helfat & Lieberman, 2002), Kogut and Zander (1992), Amit and Schoemaker (1993), Peteraf (1993), and Teece et al. (1997). Since then, the RBV has been applied to a wide range of phenomena, such as information systems (Wade & Hulland, 2004), organizational networks (Lavie, 2006), and even the Battle of Trafalgar (Pringle & Kroll, 1997). The theoretical and empirical development of the RBV has been analyzed in a number of review studies; the recent studies are Acedo, Barroso, and Galan (2006); Armstrong and Shimizu (2007); Lockett, Thompson, and Morgenstern (2009); and Newbert (2007).

Along with its development, the RBV has been extensively criticized. Some of the critiques have been indirectly leveled by suggesting amendments to the RBV (N. J. Foss, Klein, Kor, & Mahoney, 2008; Makadok, 2001b). There are also polemical articles directly critiquing the RBV (N. J. Foss & Knudsen, 2003; Spender, 2006). In this respect, Priem and Butler's (2001a, 2001b) critiques and Barney's (2001) responses are widely known. For those interested in advancing the RBV, the critiques are particularly valuable for they suggest where improvements might be made. Along these lines, we assess the critiques so far offered, adding comments about their severity and impact. This, we hope, will help prepare the ground for future theorizing and research.

The critiques fall into eight categories: (a) the RBV has no managerial implications, (b) the RBV implies infinite regress, (c) the RBV's applicability is too limited, (d) SCA is not achievable, (e) the RBV is not a theory of the firm, (f) VRIN/O is neither necessary nor sufficient for SCA, (g) the value of a resource is too indeterminate to provide for useful theory, and (h) the definition of resource is unworkable. We argue below that the first five critiques do not really threaten the RBV's status. They are incorrect or irrelevant or apply only when the RBV is taken to its logical or impractical extreme; better demarcating the RBV and its variables can contain them. However, the last three critiques offer more serious challenges that need to be dealt with if the RBV is to more fully realize its potential to explain SCA, especially beyond predictable, stable environments.

Critique 1: The RBV Has No Managerial Implications

A first critique is that the RBV lacks substantial managerial implications or “operational validity” (Priem & Butler, 2001a). It seems to tell managers to develop and obtain VRIN resources and develop an appropriate organization, but it is silent on how this should be done

(Connor, 2002; Miller, 2003). A related critique is that the RBV invokes the “illusion of total control,” trivializing property-rights issues and exaggerating the extent to which managers can control resources or predict their future value (McGuinness & Morgan, 2000). Along similar lines, Lado, Boyd, Wright, and Kroll (2006) argue the RBV suffers a tension between descriptive and prescriptive theorizing.

As this tension is present throughout management research and is not resolved (Van de Ven, 2007), this critique should not be leveled at the RBV especially. The RBV is a theory aspiring to explain the SCA of some firms over others (Nelson, 1991; Rumelt, 1984) and, as such, was never intended to provide managerial prescriptions (Barney, 2005). Any explanations the RBV might provide may well be no more than indicative yet still of value to managers, so we have no reason to oblige the RBV to generate theoretically compelling prescriptions. Rather than worrying about the RBV’s lack of managerial implications, we should maybe worry more about its evident impact on management practice, especially if it diverts management’s attention from more fruitful theorizing (also see Ghoshal, 2005; Ghoshal & Moran, 1996).

Critique 2: The RBV Implies Infinite Regress

A second critique is the RBV entails an infinite regress (Collis, 1994; Priem & Butler, 2001a). Collis (1994: 148) provides an illustration of this, writing, “A firm that has the superior capability to develop structures that better innovate products will, in due course, surpass the firm that has the best product innovation capability today.” Because a second-order capability (developing structures that better innovate products) will in due course be more valuable than any first-order capability (product innovation), the RBV suggests firms should strive to obtain such second-order capability. The point of this critique is that this step can be extended ad infinitum, leading firms into an endless search for ever higher order capabilities. Although this is true in an abstract sense, this critique does not really work against the RBV. Any applied theory, such as the RBV, lacks an unlimited number of levels of analysis, for each shift in level takes the analysis farther from the empirical level and thus from any practical implications. In the example above, introducing a third-order capability would already lead to an artificial theory that does not make much sense.

As Lado et al. (2006) pointed out, infinite regress is a problem only for those who consider management or economic science a positivistic quest for certainty—for the ultimate source of SCA. Once we appreciate strategic management as a practical engagement with indeterminacy and open-endedness, the infinite regress critique becomes less useful. Rather than treating higher order capabilities as superior to lower order capabilities, our attention then focuses on managing the interactions between them. More specifically, we may want to consider the interactions between operational competences and “meta-competences” (Mahoney, 1995; Teece, 2007) or between single-loop and double-loop learning (Argyris & Schön, 1978; Lado et al., 2006). One may argue, for instance, that single-loop learning enhances efficiency and resource exploitation, whereas double-loop learning enhances innovation and resource exploration. Because the two make qualitatively different contributions and because we assume firms need to do both (March, 1991), “higher order” capabilities cannot be treated as logically prior to or be prioritized as the source of SCA. They are more likely to be interdependent and mutually supporting.

Critique 3: The RBV's Applicability Is Too Limited

A third critique concerns the generalizability of the RBV, an argument that comes in three versions. First, Gibbert (2006a, 2006b) argues the notion of resource uniqueness—the melding of heterogeneity and immobility—denies the RBV any potential for generalization, *ex definitio*. One cannot generalize about uniqueness. As with the “applied theory” defense above, we think this is being overly academic. Rather, we agree with Levitas and Ndofor (2006) that it is perfectly possible to generate useful insights about degrees of resource uniqueness.

A second version of this critique comes, for instance, from Connor (2002), who argues that the RBV applies only to large firms with significant market power. As he argues, the smaller and nimbler firms' SCA cannot be based on their static resources, and therefore they fall beyond the bounds of the RBV. Connor's argument is diluted whenever nontangible resources are admitted—small firms may have unique competitive advantage generating capabilities. Though suggestive, Connor's argument reminds us of another limitation to the RBV's applicability: It applies only to firms striving to attain SCA. For firms satisfied with their competitive position, the RBV does not bring much insight, for its relevance follows directly from managers' aspirations and intentions.

A third version of the applicability critique is implicit in Miller's (2003) “sustainability–attainability” discussion. Miller's article suggests the resources a firm needs to generate SCA are precisely those resources that are hard to acquire in the first place. In one sense, Miller's argument is that only firms that already possess VRIN resources can acquire and apply additional resources; otherwise, competitors would acquire them with equal ease. Miller draws our attention to the implicit path dependency within the RBV in that every firm's past shapes its present and future performance. When not used to trace back to the ultimate root resources responsible for a firm's SCA, though, this does not render the RBV overly problematic. If the RBV's scope includes the individual resources and capabilities of the entrepreneurs that constituted the firm—and we see no reason why it should not—it applies even to newly founded firms.

Although these three critiques could be put aside, Barney (2002) indicates an important limit to the applicability of the RBV: It holds only as long as the “rules of the game” in an industry remain relatively fixed. In unpredictable environments, in which new technologies and/or new markets emerge and the value of resources can drastically change, we need to go beyond the RBV to explain a firm's SCA. But so long as we are explicit about this, though, it cannot be said to cause the RBV problems that are not equally visited on other applied theories.

Critique 4: SCA Is Not Achievable

The RBV's focus is on achieving an SCA that sustains beyond others' efforts to duplicate or eliminate it. The assumption that an SCA is actually achievable has become the source of a fourth type of critique. For example, although Fiol (1991) supports SCA, Fiol (2001: 692)

explicitly rejects it, arguing, “Both the skills/resources, and the way organizations use them, must constantly change, leading to the creation of continuously changing temporary advantages.” This picks up on the previous critique and is the Marshallian quasi-monopoly and equilibrium argument that every SCA must eventually be competed away. Eisenhardt and Martin (2000) and D’Aveni (1994) draw similar conclusions. But the difference here is that firms are not passive; as these studies suggest, a competitive advantage can be sustained only at the dynamic level through advantageous “dynamic capabilities” or “organizational learning,” enabling the firm to adapt faster than its competition. Inimitability is progressively compromised by “spillovers” as the firm’s products and services continue to reveal strategic information about the processes that produce them. So a firm must keep on innovating as its revenue stream is constantly exposed to new competitors, substitute products, and so forth (Porter, 1980).

We accept no SCA can last forever, but in the short run it remains a powerful strategic concept. It directs management’s attention to the dynamics that support it, emphasizing the term *sustained*, looking for practical ways of beating the market’s own “natural” timing, quickening innovation or slowing imitation. We also accept that in a dynamic environment firms cannot derive an SCA from a static set of resources. However, the RBV’s logic applies as much to dynamic capabilities as it to the firm’s other resources (Barney, Wright, & Ketchen, 2001). Although in static environments some static unique resource could lead to SCA, dynamic environments call for dynamic capabilities (Helfat et al., 2007). With the inclusion of dynamic capabilities, the RBV can account for *ex post* sources of SCA (Makadok, 2001b). Through these, firms are able to increase the productivity of the resources they have already acquired and protect them from imitation through isolating mechanisms. Against this, the RBV’s *ex ante* sources of SCA follow from having preferential and asymmetric information about the future value of the available resources. Such advantage, though, may be static in nature and then may not lend itself to the cultivation of future rent-generation opportunities. Specifically, it denies entrepreneurs can make repeatedly superior resource acquisition, development, and allocation decisions (Bromiley & James-Wade, 2003; N. J. Foss et al., 2008). Hence, although we dismiss the fourth critique, concluding that SCA is indeed achievable, we conclude the RBV mainly accounts for its *ex post* sources.

Critique 5: The RBV Is Not a Theory of the Firm

The fifth critique is that the RBV unsuccessfully reaches for a theory of the firm. The proposition that the RBV could be considered a new theory of the firm was put on the agenda by Conner (1991) and Kogut and Zander (1992). Their conclusion was that the RBV is indeed striving to be a theory of the firm, one that materially differs from other available theories of the firm, in particular from transaction cost economics (TCE; Williamson & Winter, 1991). Five years later, with the expanding interest in knowledge as a strategic resource, discussions around the RBV as a theory of the firm were the focus of a dialogue in *Organization Science* (Barney, 1996; Conner & Prahalad, 1996; N. J. Foss, 1996a, 1996b; Kogut & Zander, 1996) and a special issue of *Strategic Management Journal* (Grant, 1996b; Liebeskind, 1996; Spender, 1996).

In an important commentary, N. J. Foss (1996a, 1996b) concluded the RBV is insufficient as a theory of the firm. The RBV explains differences between firms and why firms are better at rent creation than individuals. With their focus on the coordinative and integrative capabilities of organizations, it is in particular the knowledge-based versions of the RBV that provide such explanations (Dosi, Faillo, & Marengo, 2008; N. J. Foss, 2007; Grant, 1996a). However, for an explanation of why firms exist, why their boundaries and internal organization are as they are, and why they are better at rent creation than markets, specific references to incentives, asset ownership, and opportunism are required. Five years later we find Foss's conclusion supported (Mahoney, 2001; Priem & Butler, 2001a).

Although we agree the RBV is no theory of the firm, this does not render the RBV problematic as a theory of rents and SCA. Despite the Conner (1991) and Kogut and Zander (1992) articles, the RBV's originators have maintained it is not a putative theory of the firm and that they had no intention of explaining the existence or boundaries of firms (Barney, 2005; Barney & Clark, 2007; Peteraf & Barney, 2003). Given that TCE addresses such questions directly, the RBV seems more a complement to TCE (Barney, 1999; Gibbons, 2005), and we see no reason to require the RBV to meet the criteria for a theory of the firm.

Critique 6: VRIN/O Is Neither Necessary Nor Sufficient for SCA

Thus far, we have argued the RBV stands up tolerably well to the first five critiques. As long as it is applied with care, no real problems have emerged. Three remaining critiques, though, cause it more serious problems. The key to the RBV is that SCA can be achieved by applying resources and capabilities when these are VRIN plus when there is an appropriate organization in place (Barney, 1994). The first axiom has been subject to a further critique, that the VRIN/O criteria are neither sufficient nor necessary to explain SCA. One version of the sufficiency critique concerns the lack of empirical support for the RBV. As two recent reviews point out (Armstrong & Shimizu, 2007; Newbert, 2007), empirical research has generated only modest support, implying other factors must be considered when explaining SCA. The sufficiency critique is not limited to methodological issues. It has been noted several times that the possession of resources is not sufficient, and it is only by being able to deploy these that SCA can be attained (Makadok, 2001b; Peteraf & Barney, 2003). Yet by applying the VRIN/O logic to such "deployment capabilities" as well, the RBV skirts a full explanation for SCA because we are left without a theory of capability deployment. Beside the sufficiency critique, there are also studies arguing the VRIN/O criteria are not necessary to explain SCA. N. J. Foss and Knudsen (2003), for example, argue that uncertainty and immobility are the truly basic conditions for an SCA to arise; any other conditions, they argue, are simply additional to these. Along a similar line, Becerra (2008) points at value uncertainty, resource specificity, and firm-level innovation as conditions under which profits can emerge in the RBV.

These comments suggest fundamental disagreements about the nature of markets, individuals, and resources and the roles these play in generating SCA. When introducing the RBV, we summarized the canonical RBV positions. But along with these, two alternative positions have emerged that contain fundamental critiques of the RBV's key assumptions. The first concerns the

assumption that the locus of SCA lies at the component level, especially at the level of the individual resource. Criticism here has come in several varieties, drawing attention to the set of productive opportunities (Penrose, 1959/1995), integrative capabilities (Grant, 1996a), interdependencies (Kor & Leblebici, 2005), and asset cospecializations and complementarities (Teece, 2007) as sources of SCA. Their common denominator is the assertion that it is not the value of an individual resource that matters but rather the synergistic combination or bundle of resources created by the firm.

The second critique argues the RBV narrows the attributes of entrepreneurs and managers to having “entrepreneurial alertness” and superior information on the future value of resources. Founded on Knightian uncertainty (Knight, 1921), the Penrosian view of the entrepreneur (Connell, 2007; Penrose, 1959/1995; Pitelis, 2007), and the Austrian economic subjectivist view of resource heterogeneity (N. J. Foss, 1994; Menger, 1871/1985; von Mises, 1949), this critique argues that the RBV does not sufficiently recognize the role of the individual judgments or mental models of entrepreneurs and managers (K. Foss, Foss, & Klein, 2007; N. J. Foss et al., 2008; Mahoney, 1995). It further argues that the locus of SCA lies in the characteristics of individuals and teams making up the firm rather than in resources or market failures. This is not to say that there are no resources that can be valuable for most or even all organizations; there may be plenty, including specific human resource practices, quality management systems, and procedures that facilitate learning. Though even these may require firm-specific adjustments, they nevertheless have the potential of being valuable for every organization. The point here is that to create SCA a firm needs both a bundle of resources and the managerial capabilities to recognize and exploit the productive opportunities implicit in them. The deeper question is whether such knowledge can be legitimately or usefully treated as a resource of the same type as those in the bundle. As we make clear later, we think it cannot.

Critique 7: The Value of a Resource Is Too Indeterminate to Provide for Useful Theory

A critique that has widely resonated is that the RBV is a tautology that fails to fulfill the criteria for a true theory. Lockett et al. (2009) and Priem and Butler (2001a, 2001b) argue the RBV does not contain the law-like generalizations that must be expected. Rather, it stands on analytic statements that are tautological, true by definition, and not able to be tested. We explicitly see this in Barney’s original article:

Firm resources include all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness. (Barney, 1991a: 101)

Resources are valuable when they enable a firm to conceive of or implement strategies that improve its efficiency or effectiveness. (Barney, 1991a: 105)

A firm is said to have a *competitive advantage* when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitor. (Barney, 1991a: 102)

When considering that Barney (2002) defines SCA in line with Porter (1985) in terms of improved efficiency (reducing cost) and effectiveness (increasing value), we see the RBV is unmistakably tautological: Value and uniqueness appear in both *explanans* and *explanandum*. The main problem here lies in the RBV's indefinite notion of value (Priem & Butler, 2001b).

In an attempt to clarify the RBV notion of value, Bowman and Ambrosini (2000) suggest three concepts of value: perceived use value (the perception of value by a customer), total monetary value (the amount of money a customer is prepared to pay), and exchange value (what is actually paid). They also suggest distinguishing value creation, value capturing, and value assessment. Such work, and that of Hoopes, Madsen, and Walker (2003); Hoopes and Madsen (2008); and Peteraf and Barney (2003), calls on the "value-price-cost framework" (Anderson & Narus, 1998; Tirole, 1988). In another clarification, Makadok (2001b) argues the value of resources can appear a priori, by assessing value at the moment of their selection, whereas the value of capabilities appears only post hoc, after resource deployment.

To some extent, these distinctions have clarified the equivocal notion of value offered in the initial RBV publications. However, they have not resolved the RBV's tendency to tautology. Because the value of a resource and the SCA it generates is defined in identical terms, the *explanans* and the *explanandum* of the RBV remain the same. A question then is, if the core message of the RBV is so clearly tautological, how are we to interpret the RBV? A first option would be to think of the RBV as a heuristic for managers, a definition and illumination of SCA and its sources, rather than as a theory, in which case the RBV's message would be that firms should strive to differentiate themselves by developing and obtaining resources to which no other firm has access—and at a cost less than the resulting increase in price or decrease in costs. This may not seem noteworthy to today's managers: "This is so obvious that I suspect that we soon will drop the compulsion to note that an argument is 'resource-based'" (Wernerfelt, 1995: 173). Yet almost 15 years after this comment, management scholars still feel this compulsion.

Alternatively, if we are to consider the RBV a theory, we must find a way to decouple or deny the tautology. This would require that "value" means something different in the *explanans* than in the *explanandum* and thus that the value of a firm's resources and capabilities must be determinable independently of the value of products or services delivered to the firm's customers. The imprecise and tautological definitions of value offered in the seminal work have triggered several debates around whether value in the RBV is determined endogenously (by the firm), exogenously (by the market), or otherwise. Although Makadok (2001a) and Makadok and Coff (2002) argue value is determined endogenously in terms of the resource's contribution to profit after being combined with other "complementary" resources, Priem and Butler (2001a) argue it is determined exogenously by the market. Because Barney (2001) explicitly agrees with Priem and Butler, we must assume value in the RBV should be determined exogenously. But the RBV itself does not provide the means for such alternative external determination (Priem & Butler, 2001b).

A second route for addressing the tendency to tautology could be to attend to the time lag between acquiring VRIN resources and gaining an SCA. This would mean that the value of a firm's resources and capabilities at time $t = x$ is considered the *explanans* (having VRIN resources) and the value at time $t = x + 1$ is considered the *explanandum* (SCA). In other

words, a firm's SCA today depends on the non-resource-produced transformation of its prior resource bundle. This move would reframe the RBV as a theory of path dependency or constraint over strategic resource allocations in which there is little room for managers to lead their firm intentionally toward SCA. Explanations for deviations from such a predefined path then must be sought outside the RBV. Yet it is precisely these explanations that are most interesting and that might illuminate how or why firms differ even when they have similar initial resource endowments and make radical changes over time. Because both arguments take us well beyond the current RBV discourse, we conclude the RBV is still more of a heuristic than a substantial theory about differentiated resources and SCA production. At the heart of the canonical RBV, then, we see increasing difficulties with establishing external "objective" bases for resource value and argue later that incorporating more subjective and firm-specific notions of value might better address this critique.

Critique 8: The Definition of Resource Is Unworkable

A final telling critique of the RBV focuses on its axiomatic definitions, especially that of resource. Exemplary definitions are the following:

By a resource is meant anything which could be thought of as strength or weakness of a given firm. More formally, a firm's resources at a given time could be defined as those (tangible and intangible) assets which are tied semi-permanently to the firm. (Wernerfelt, 1984: 172)

Firm resources include all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness. (Barney, 1991a: 101; Barney, 2002: 155)

The firm's *Resources* will be defined as stocks of available factors that are owned or controlled by the firm. (Amit & Schoemaker, 1993: 35)

These are clearly overly inclusive (Priem & Butler, 2001a). Although Barney (2001) suggests the all-inclusiveness is part of the RBV's strength, it is surely a weakness so long as it drives the theory toward tautology. Specifically, if we accept these all-inclusive definitions, there is nothing strategically useful associated with the firm that is not a resource. Because attributes such as trust, cost leadership, economies of scale, and learning curve economies might also be considered resources (Barney, 2001; Barney & Clark, 2007; Barney & Hansen, 1994), indeed we find every reason to regard having an SCA a resource as well.

The inclusive definitions of resources are problematic for two reasons. First, they do not sufficiently acknowledge the distinction between those resources that are inputs to the firm and the capabilities that enable the firm to select, deploy, and organize such inputs. This problem is particularly apparent when we consider the notion of a "dynamic capability." These have been defined as

the firm's processes that use resources—specifically the processes to integrate, reconfigure, gain and release resources—to match and even create market change. Dynamic capabilities thus are the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die. (Eisenhardt & Martin, 2000: 1107)

Similar distinctions have been offered by Makadok (2001b), Amit and Schoemaker (1993), Barney et al. (2001), and Peteraf (1993). Although these authors distinguish capabilities from resources, the inclusive definitions above clearly include them and treat all in the same way. Hence, we are left puzzled about the RBV's core concept.

A second problem is that the RBV does not address fundamental differences in how different types of resources may contribute in a different manner to a firm's SCA. Although the RBV recognizes different types of resource—for example, physical capital, human capital, and organizational capital (Barney, 1991a)—it treats them all in the same way. Along this line, Barney and Clark (2007) suggest the typologies so far offered are mere labels for which the basic logic of the RBV still holds. They also suggest that different labels would be appropriate only if these referred to an alternative logic of linking a firm's assets with its SCA. Although they seem to favor a single logic and terminology—not caring whether this would be labeled “resource based,” “capability based,” or “competence based”—our conclusion is quite the opposite: The RBV could improve substantially if its basic logic were refined by explicitly recognizing differences among types of resources—static, dynamic; tangible, intangible; financial, human, technological; deployed, in reserve; perishable, nonperishable; and so on—and among types of resource ownership.

Conclusions on the Critiques

The eight critiques and our assessments of them are summarized in Table 1. We argue the RBV can withstand five quite well when its variables, boundaries, and applicability are more clearly specified. Three critiques, though, cannot be so easily dismissed. These concern the indeterminate nature of two concepts fundamental to the RBV—resource and value—and the RBV's narrow explanation of a firm's SCA. The common theme underlying these last three critiques is that the RBV has clung to an inappropriately narrow neoclassical economic rationality. With its overemphasis on the possession of individual resources and insufficient acknowledgment of the importance of bundling resources and of the human involvement in assessing and creating value, it does not sufficiently capture the essence of competitive advantage, neither statically nor dynamically. We conclude the RBV can fulfill its promise only as a central theory of SCA through a reconsideration of these fundamentals. Below we offer our views on how future theorizing and research might do this.

Future Directions

Although the RBV has been subject to its fair share of academic sniping, we conclude three critiques are deeply damaging. They show where further development is needed if the RBV's reputation is to be sustained. In the rest of this article we outline directions, summarized in Table 2, for some specific future theorizing and research that, we hope, will help take the discourse forward.

Demarcating and Defining Resources

As Critique 8 argued, to advance the RBV, clearer demarcations between what are and what are not resources, and among various types of resource, are needed. This reductionist

Table 1
Summary and Assessment of Critiques to the Resource-Based View (RBV)

Critique	Assessment
1. The RBV has no managerial implications.	Not all theories should have direct managerial implications. Through its wide dissemination, the RBV has evident impact.
2. The RBV implies infinite regress.	Applies only to abstract mathematical theories. In an applied theory such as the RBV, levels are qualitatively different. It may be fruitful to focus on the interactions between levels rather than to consider higher levels prior as a source of SCA.
3. The RBV's applicability is too limited.	Generalizing about uniqueness is not impossible by definition. The RBV applies to small firms and startups as well, as long as they strive for an SCA. Path dependency is not problematic when not taken to the extreme. The RBV applies only to firms in predictable environments.
4. SCA is not achievable.	By including dynamic capabilities, the RBV is not purely static, though it only explains <i>ex post</i> , not <i>ex ante</i> , sources of SCA. Although no CA can last forever, a focus on SCA remains useful.
5. The RBV is not a theory of the firm.	The RBV does not sufficiently explain why firms exist. Rather than requiring it to do so, it should further develop as a theory of SCA and leave additional explanations of firm existence to TCE.
6. VRIN/O is neither necessary nor sufficient for SCA.	The VRIN/O criteria are not always necessary and not always sufficient to explain a firm's SCA. The RBV does not sufficiently consider the synergy within resource bundles as a source of SCA. The RBV does not sufficiently recognize the role that judgment and mental models of individuals play in value assessment and creation.
7. The value of a resource is too indeterminate to provide for useful theory.	The current conceptualization of value turns the RBV into a trivial heuristic, an incomplete theory, or a tautology. A more subjective and creative notion of value is needed.
8. The definition of resource is unworkable.	Definitions of resources are all inclusive. The RBV does not recognize differences between resources as inputs and resources that enable the organization of such inputs. There is no recognition of how different types of resources may contribute to SCA in a different manner.

Note: SCA = sustained competitive advantage; TCE = transaction cost economics; VRIN/O = valuable, rare, inimitable, and nonsubstitutable resources and capabilities plus organization.

strategy is in line with the RBV's own initial micro-foundational impulse. Clearly, some of the RBV literature attempts to distinguish resources from capabilities. Yet a limitation of the capabilities approach is that even the processes of resource development and deployment are—like the resources themselves—conceptualized as capacities, inclining us to think in terms of their possession rather than in terms of integration and application. To arrive at a better-determined concept of resources and capabilities, it is useful to explicitly distinguish capacity from action (or process); resources and capabilities both should be conceived as capacities that enable a firm's actions (Hodgson, 2008). They allow firms to perform their

Table 2
Suggestions for Future Theorizing and Research

Demarcating and Defining Resources

1. Theorize the distinctions between the building, acquiring, and possessing capacity (which includes resources and capabilities) versus the processes of deploying that capacity.
2. Conduct more process-based empirical research within the RBV frame to probe how resource-based SCA and performance are related.
3. Integrate the insights provided by property rights theory into resource-based theorizing to improve our understanding of how resource attributes contribute to SCA and performance.
4. Identify types or characteristics of resources that help refine the predictions of the RBV—that differ in the manner they contribute to a firm's SCA. Specifically,
 - a. Explore the distinction between rivalrous and nonrivalrous resources and the impact of this distinction on the predictions of the RBV.
 - b. Expand on the distinction between resources and integrative capabilities and on the hierarchical relationship between individual and collective resources.

Toward a Subjective and Firm-Specific Notion of Resource Value

5. Bring human imagination into the center of the RBV:
 - a. Investigate the value assessment processes by which new ways to create and capture novel value are conceived.
 - b. Study whether and how human ideas ignite revolutionary modes of value creation.
6. Study the social influence mechanisms through which entrepreneurs create value by convincing others of the value of their products.
7. Focus theorizing about “value” in the RBV on the socially recognized rights of action associated with resources rather than on some abstract objective value of the resources themselves.

The RBV as a Theory of Sustained Competitive Advantage

8. Develop a resource-based explanation of SCA that focuses on the differences in people's capacities to identify or imagine and judge the potential risks and benefits associated with the ownership of resources.
 9. Develop refined propositions on the relationship between specific types of resources and a firm's SCA.
 10. Study how new resources are selected and how they can be matched with the existing resources in place in the organization.
 11. Embrace insights provided by recent developments in the streams of research on entrepreneurship, dynamic capabilities, and Austrian economics in the RBV.
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Note: RBV = resource-based view; SCA = sustained competitive advantage.

actions but—at the same time—constrain them. Future theorizing would also benefit from explicitly distinguishing between building and acquiring capacity (which includes resources and capabilities) on one hand and the managerial processes of deploying that capacity on the other hand. By doing so, a more practical resource-based theory about which resources and capabilities to deploy and which to keep in reserve might be developed.

So far, empirical studies on the RBV have primarily adopted a variance approach with a set of resources and capabilities as independent variables and performance or SCA as the dependent variable. Such research leaves the processes by which resources and capabilities are deployed black boxed. Opening this black box requires the repertoire of empirical research methods to be extended toward process-based approaches (e.g., Groen, Wakkee, & De Weerd-Nederhof, 2008; Van de Ven, 2007; Van de Ven & Polley, 1992). Only by combining both approaches will we be able to understand which resources and capabilities are sources of SCA and how some firms are able to perform better than others (Holcomb, Holmes, & Connelly, 2009; Mahoney, 1995; Makadok, 2003; Sirmon, Gove, & Hitt, 2008; Sirmon, Hitt, & Ireland, 2007).

The distinction between capacity and action—between potential and realized value—will also benefit from further analysis of property rights issues around the RBV. Typically the canonical RBV literature trivializes ownership, suggesting it is complete and unconstrained. Property rights comprise rights to consume, obtain income from, and alienate resource attributes (Alchian, 1977; Alchian & Demsetz, 1973). By assuming firms have a complete and undifferentiated control over resources, the RBV fails to recognize the various types of rights that can be associated with a particular resource and the strategically significant distinctions among them. As a result, it assumes a resource is owned by one firm only and that this firm has the complete control over this resource. Decades of theorizing on property rights have demonstrated this is a gross oversimplification, if only because there would be no rights to acquire a resource if the rights of individuals were unlimited (Coase, 1960). The control over a resource by a single firm is limited because a firm can obtain only part of the rights associated with the resource and often has to share the resource with other firms (Demsetz, 1967). Firms, then, can be considered to have “bundles of partitions of property rights” (Kim & Mahoney, 2005: 236) or, preferably, an “integrated bundle of interacting property-rights” (Spender, 1983: 2). Based on a property rights perspective, the RBV should focus not only on resources per se but even more so on the specific rights associated with them. It is the distribution of property rights across several firms that affects the extent to which the potential capacity of a resource can be realized (Kim & Mahoney, 2005). When the distinction between resources and property rights is taken into account, future research on the RBV might generate deeper understanding of how, in the practical world of legal and institutional constraints, resources actually contribute to SCA and performance. Given especially that human and intellectual capital are hard to own or control, a property rights and contracts perspective may prove particularly useful in analyzing how human and intellectual capital can be sources of SCA in relation to the firm (Bowman & Swart, 2007; Coff, 1997; Dean & Kretschmer, 2007).

To further enhance the RBV, future studies should also consider that different types of resources might contribute to a firm’s SCA in different ways. We need typologies with direct and identifiable implications for the theory that would classify resources based on their manner of contributing to a firm’s SCA. Differentiating between resources and emphasizing their different characteristics could prove useful. The deeper suggestion is to move from seeking an “objective” or external definition of resource or value to one defined by the situation or context, implying there cannot be a single, universal way of categorizing resources (Mahoney, 1995; Penrose, 1959/1995). Although there are many ways of approaching this, we limit the discussion to one category we think deserves special attention.

No resource is probably more problematic than knowledge (Spender & Scherer, 2007). The RBV literature suggests the main difference between knowledge and other types of resources resides in its intangibility. Another characteristic of knowledge, hardly taken into account in the RBV, is its nonrivalrousness—meaning that its deployment by one firm, or for one purpose, does not prevent its redeployment by the same or another firm, or for another purpose. On the contrary, deploying knowledge may *increase* it (Winter & Szulanski, 2001). The distinction between rivalrous and nonrivalrous resources has axiomatic implications for the RBV. Based on strategic factor market logic, the RBV assumes resources are

scarce and firms must compete to obtain the best. Although such neoclassical economic logic applies to rivalrous resources it cannot apply to nonrivalrous resources for which there is no scarcity. Cooperation and codevelopment may prove to be effective ways of obtaining strategically significant knowledge. When knowledge increases after deployment, externalities can arise, and sometimes all can benefit from others' application of that knowledge. By engaging this distinction between rivalrousness and nonrivalrousness, the RBV can better capture the fact that many firms nowadays cooperate intensively—while still competing. As we look within firms, the management of nonrivalrous resources differs greatly from the management of rivalrous resources. If a resource can be used only once, managers must focus on its efficiency in use and attempt to take advantage of as many productive opportunities as possible (Penrose, 1959/1995). But if a resource is increased by its deployment, that resource should probably be deployed as widely and frequently as possible; the more it is deployed, the more advanced it will become. We believe further theorizing and research on learning-by-doing and learning-curve implications of the RBV should prove fruitful here (Yelle, 1979).

As we have argued above, the RBV focuses on individual and separable resources and their inherent characteristics. As Newbert (2007) demonstrates, resource configurations (or combinations as they are called there) are more likely to explain performance than single resources. This empirical evidence suggests that a component level of analysis is insufficient (also see Critique 6). If we are to understand the complementarity and substitutability of resources in a firm, we need to consider the organization level as well. Some attempts at this have been made in the knowledge-based literature, and Spender and Grant's work may deserve further attention. Spender's (1994, 1996, 2005) distinction between individual and social knowledge points to crucial differences between individual and organizational resources. Grant (1996a, 1996b) provides the rudiments of a resource-based theory based largely on these differences. Paraphrasing Penrose's distinction between resources and services, Grant (1996a) argues it is not resources themselves that generate SCA but the managerial capabilities to *integrate* these resources (also see Kraaijenbrink & Wijnhoven, 2008). Grant goes on to develop a hierarchy of integration capabilities from the level of individual resources to the level of organizational capabilities. Combined with the notions of asset cospecialization and complementarities (Stieglitz & Heine, 2007; Teece, 2007) and the insight that complex interdependencies exist between multiple levels of strategy (Kor & Leblebici, 2005), Grant's work provides a promising starting point for further developing the RBV with a more refined concept of resource.

Toward a Subjective and Firm-Specific Notion of Resource Value

As summarized in Critique 7, the RBV's notion of value has been subject to broad and effective criticism. Clarifications have helped (e.g., Peteraf & Barney, 2003) but have not fully resolved the RBV's tendency to tautology. Moreover, they do not sufficiently address the observation that firms can generate an SCA from apparently valueless or even burdensome resources. The RBV's defining assumption is that value is a characteristic of one or more of the firm's resources. This assumption is based on (boundedly) rational reasoning as a method of inference and further assumptions about the continuity and predictability of

markets. These assumptions may not hold in environments that are not mature or predictable. As Penrose (1959/1995) argued, markets give resources a certain price, but the value that a firm creates and captures from them is not fully determined by that price. Thus, the management's own "subjective" assessment of the value of a resource is every bit as determining of its possible value to the firm as any reasoning or quality inherent to the resource itself.

Along these lines RBV theorists may want to reconsider, as do Witt (1998, 1999, 2007), Sarasvathy (2001; Sarasvathy & Dew, 2005), and Baker and Nelson (2005), that the processes of value assessment include those of conceiving ways to create and capture novel value through a specific resource. This moves us beyond the closed universe of discourse that characterizes much of neoclassical economics and, given its neoclassical roots, much of the RBV discourse and into a humanly constructed world in which value creation starts from our imaginings and leads to constructive and explorative action. As Foss et al. (K. Foss, Foss, & Klein, 2007; K. Foss, Foss, Klein, & Klein, 2007; N. J. Foss & Ishikawa, 2007; N. J. Foss & Klein, 2005), Kor, Mahoney, and Michael (2007), and Alvarez and Busenitz (2001) argue, the practical assessment and evaluation of resources involve subjectivism, knowledge creation, and entrepreneurial judgment.

There is an element of Say's Law here, the implication that supply creates its own demand, for the effective imagination of a novel product or service can lead to the creation of its own market. As in the case of value assessment, the entrepreneur plays a pivotal role. Merely imagining value does not create and capture it. For its actual creation, firms will need all kinds of resources to help turn their ideas into reality—including having other firms or people value what has been produced (Anderson & Narus, 1999; Lepak, Smith, & Taylor, 2007). The role of the entrepreneurs cannot be limited to imagining value that others do not see. Rather, it must embrace bringing the resources together in such a way that the value they imagine is delivered. This imagining of value and the bringing together of resources can be considered a process of mutual interaction in which resources partially shape people's mental models, and these enable them to find value in the resources (N. J. Foss et al., 2008; Mahoney, 1995). Thus, value must be discovered and created through practice that is anticipated and reflected on imaginatively and subjectively. Likewise, selling is a social process by which managers or entrepreneurs create value by convincing others of the value of their products. This implies value creation involves all kinds of internal and external social influence mechanisms including the use of rhetoric, power, and bargaining (Coff, 1999).

The key differences here from the current RBV are that in environments that are not highly predictable and mature, the primary locus of value creation may lie within the firm, within the imaginative and creative capabilities of the people involved in it, rather than in the market and the prices of the resources they obtain (Denrell, Fang, & Winter, 2003; Romer, 1990). By "the people involved" we imply both the employees and those many not conventionally considered to be members of the firm, such as "lead users" (von Hippel, 1986) and those who materially shape its infrastructure, such as government regulators. Hence, although we agree with Penrose (1959/1995), N. J. Foss et al. (2008), Kor and Mahoney (2004), and Mahoney (1995) that the entrepreneurial or managerial team plays a pivotal role in recognizing and creating value, our conception of the people involved is even more inclusive. Locating the source of value creation within the imagination of those networked provides room for radical, disruptive innovation and a dynamic view of value in the

RBV (K. Foss & Foss, 2008). Where the external focus on resources tends to stress the path dependent, evolutionary nature of change, it may be the sudden idea that ignites revolutionary modes of value creation. As these more subjective and creative notions of value are incorporated into the RBV, they bring human imagination back to the center of strategic management theorizing.

The idiosyncratic nature of resource value is further shaped by the specific institutional context of a particular firm. The value of resources in the RBV may therefore also be better understood as it incorporates insights from legal, institutional, and property rights theorizing. Demsetz (1967) explicitly reminds us it is the value of the property rights that determines the value exchanged in a transaction rather than anything immanent in the underlying resource. Considering the various types of property rights that exist, we conclude a single resource can be a source of multiple values that differ between actors. One firm may have the right to consume a resource, even while another has the right to obtain income from that same resource and yet another has the right to alienate some of the resource's attributes. Although the underlying resource is notionally the same for all three, the values derived may differ substantially. It is the "socially recognized rights of action" that are valuable here (Alchian & Demsetz, 1973). In other words, it is what an individual firm or person is able and allowed to do with a resource that determines much of its value, as Coase (1960) suggested.

The RBV as a Theory of SCA

By addressing the critiques of these two fundamental notions of the RBV, the previous two sections also serve as a starting point for addressing a final critique—Critique 6—that the VRIN/O criteria are not necessary and sufficient for SCA. We can bring what was said above on resources and value together with our suggestions on how the RBV might be developed into a more viable theory of SCA. We have suggested the clarity and explanatory power of the RBV should improve when it clearly distinguishes among the building, acquisition, and possession of capacity (resources and capabilities) and the processes of deploying that capacity in the firm's actions. This distinction leaves the RBV's central proposition intact. As long as SCA embraces the firm's *potential* to best its rivals (Peteraf & Barney, 2003), the RBV is correct in its focus on the building and possession of capacity. However, the moment we try to explain or predict the firm's actual performance, that is, its generation and appropriation of rents, the RBV turns out to be incomplete because it ignores the material contingencies of the firm's situation (Becerra, 2008; Powell, 2001)—precisely those considerations germane to the five-forces analysis that the RBV sought to critique. To explain performance, future studies should take into account the context and *processes* of resource deployment in realizing the value of resources.

We have also suggested that future work on the RBV needs to better account for the many different types of resources, distinguishing between rivalrous and nonrivalrous resources, component-level and organization-level resources, and so on. But taking these into account affects the RBV's central proposition. Rather than taking a single concept of resources and capabilities and a single logic in resource-based theory, we need more refined propositions on the complex and dynamic relationships between particular types of resources, SCA, and

rent creation. Moving between component-level and organizational-level resources will also help to further surface the role of organization in the RBV's central proposition. Rather than simply proposing an appropriate organization should be in place, it becomes more interesting to probe how newly developed or acquired resources should be matched and integrated with the resources already in place, as in mergers and acquisitions. As such, enhancing the notion of organization can lead to further insights in the selection and transformation of newly gathered resources and adjustments needed to the existing resources in place.

Concerning the VRIN characteristics, our critiques and suggestions have centered on the notion of value. In the RBV, a firm has SCA only when it possesses resources that have a higher value in a future market than in the current market and when competitors do not have these resources. But as we move toward a more subjective and creative notion of value, the key to SCA is both the Penrosian disjunction between resources and services and the acts of imagination that bridge the two, repairing or synthesizing them into a viable organization (Spender, 1994). Consequently, no firm can come into being without SCA, for this simply refers to the finite gap between the resources deployed and the outcome necessary to overcome the inevitable transaction costs, inefficiencies, and frictions. Thus, beyond managing these resources there is the challenge to manage the imaginative processes that enable the firm to grasp the strategic disjunction between its resource set and the market situation in which it is operating. It gains what we call "advantage" only by successfully avoiding the equal possibility of "disadvantage" (Powell, 2001), by using imagination more effectively than its competitors in the search for novel means and ends. This involves acquiring, mobilizing, deploying, energizing, and retaining imaginative people. Future work on human resources will have to uncover how firms can do this (Chadwick & Dabu, 2009).

A final issue to which the critiques draw attention is the limited way in which the RBV deals with dynamic issues such as boundaries, timing, innovation, and entrepreneurship. With its focus on the possession of resources and capabilities, the RBV is inherently static, not well equipped to explain the timing of *when* value is created, when rents are appropriated, and how firms innovate and generate new sources of SCA. At the same time, recent developments in the streams of research on entrepreneurship (e.g., Langlois, 2007; Sarasvathy & Dew, 2005), dynamic capabilities (e.g., Teece, 2007), and Austrian economics (K. Foss, Foss, & Klein, 2007; N. J. Foss & Ishikawa, 2007) may provide stepping stones to advancing more dynamic variants of the RBV—and some of the insights from these streams of research have been incorporated in this article. Overall, we suggest that for RBV to maintain its position as the favored theory of strategic management, RBV theorists need to pay new attention to those streams of research and embrace some of their insights.

Conclusion

Our review itemized eight main issues with the RBV, of which three should not be dismissed too lightly. Of course, out of necessity we have simplified many authors' critiques and may be guilty of trying to remake arguments they have already made quite adequately. Notwithstanding, we hope we have shed additional light on the broad range of critiques offered to date and thereby provided a way to separate the more telling from the less so.

As our review and suggestions for future theorizing and research indicate, we feel the RBV community has clung to an inappropriately narrow neoclassical economic rationality and has thereby diminished its opportunities for progress over the past decade or so. We feel the sharpest yet most productive critiques have come from writers embracing the nonmainstream economic positions variously labeled Austrian, Knightian, evolutionary, or otherwise “nonequilibrium.” From their point of view the challenge is not to dissolve or recapture these critiques in a neoclassical equilibrium framework but the very opposite. So there is some irony in many RBV writers’ assumption that Penrose is the RBV’s “godmother,” for her views were Austrian through and through (Connell, 2007). The way forward, we feel, is to move the RBV’s agenda into the inherently dynamic Austrian framework, not by accentuating the rather unfortunately labeled “dynamic capabilities” but by incorporating time, space, and uncertainty resolution into the RBV’s axiomatic base. Going back to Marshall’s work, every indication is that all SCA in a reasonably well-run socioeconomy is perishable unless continuously invigorated by successful innovation. Inasmuch as the RBV’s original impulse was to critique Porter’s five-force analysis (Spender, 1983, 1994; Wernerfelt, 1984), we must conclude his real estate metaphor of sustained superior positioning has done its valuable work but should now give way to the postmodern innovator’s anxiety about the never-ending race against the market’s own clock. We hope that our suggestions for future theorizing and research will help provoke this shift and help the RBV evolve into a more fully contextualized and managerially relevant theory of competition management.

References

- Acedo, F. J., Barroso, C., & Galan, J. L. 2006. The resource-based theory: Dissemination and main trends. *Strategic Management Journal*, 27: 621-636.
- Alchian, A. A. 1977. Some economics of property rights. In A. A. Alchian (Ed.), *Economic forces at work*: 127-149. Indianapolis, IN: Liberty Fund.
- Alchian, A. A., & Demsetz, H. 1973. The property rights paradigm. *Journal of Economic History*, 33: 16-27.
- Alvarez, S. A., & Busenitz, L. W. 2001. The entrepreneurship of resource-based theory. *Journal of Management*, 27: 755-775.
- Amit, R., & Schoemaker, P. J. H. 1993. Strategic assets and organizational rent. *Strategic Management Journal*, 14: 33-46.
- Anderson, J. C., & Narus, J. A. 1998. Business marketing: Understand what customers value. *Harvard Business Review*, 76(6): 53-65.
- Anderson, J. C., & Narus, J. A. 1999. *Business market management, understanding, creating and delivering value*. Upper Saddle River, NJ: Prentice Hall.
- Argyris, C., & Schön, D. A. 1978. *Organizational learning: A theory of action perspective*. Reading, MA: Addison-Wesley.
- Armstrong, C. E., & Shimizu, K. 2007. A review of approaches to empirical research on the resource-based view of the firm. *Journal of Management*, 33: 959-986.
- Bain, J. S. 1968. *Industrial organization*. New York: John Wiley.
- Baker, T., & Nelson, R. E. 2005. Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50: 329-366.
- Barney, J. B. 1986a. Organizational culture: Can it be a source of sustained competitive advantage? *Academy of Management Review*, 11: 656-665.
- Barney, J. B. 1986b. Strategic factor markets: Expectations, luck, and business strategy. *Management Science*, 32: 1231-1241.

- Barney, J. B. 1991a. Firm resources and sustained competitive advantage. *Journal of Management*, 17: 99-120.
- Barney, J. B. 1991b. Special theory forum: The resource-based model of the firm: Origins, implications, and prospects. *Journal of Management*, 17: 97-98.
- Barney, J. B. 1994. Bringing managers back in: A resource-based analysis of the role of managers in creating and sustaining competitive advantages for firms. In *Does management matter? On competencies and competitive advantage. The 1994 Crafoord lectures*: 1-36. Lund, Sweden: Lund University, Institute of Economic Research.
- Barney, J. B. 1996. The resource-based theory of the firm. *Organization Science*, 7: 469.
- Barney, J. B. 1999. How a firm's capabilities affect boundary decisions. *Sloan Management Review*, 40: 137-145.
- Barney, J. B. 2001. Is the resource-based "view" a useful perspective for strategic management research? Yes. *Academy of Management Review*, 26: 41-56.
- Barney, J. B. 2002. *Gaining and sustaining competitive advantage*. Upper Saddle River, NJ: Prentice Hall.
- Barney, J. B. 2005. Where does inequality come from? The personal and intellectual roots of resource-based theory. In K. G. Smith & M. A. Hitt (Eds.), *Great minds in management: The process of theory development*: 280-303. Oxford, UK: Oxford University Press.
- Barney, J. B., & Clark, D. N. 2007. *Resource-based theory: Creating and sustaining competitive advantage*. Oxford, UK: Oxford University Press.
- Barney, J. B., & Hansen, M. H. 1994. Trustworthiness as a source of competitive advantage. *Strategic Management Journal*, 15: 175-190.
- Barney, J. B., Wright, M., & Ketchen, D. J., Jr. 2001. The resource-based view of the firm: Ten years after 1991. *Journal of Management*, 27: 625-641.
- Becerra, M. 2008. A resource-based analysis of the conditions for the emergence of profits. *Journal of Management*, 34: 1110-1126.
- Bowman, C., & Ambrosini, V. 2000. Value creation versus value capture: Towards a coherent definition of value in strategy. *British Journal of Management*, 11: 1-15.
- Bowman, C., & Swart, J. 2007. Whose human capital? The challenge of value capture when capital is embedded. *Journal of Management Studies*, 44: 488-505.
- Bromiley, P., & James-Wade, S. 2003. Putting rational blinders behind us: Behavioural understandings of finance and strategic management. *Long Range Planning*, 36: 37-48.
- Bromiley, P., & Papenhausen, C. 2003. Assumptions of rationality and equilibrium in strategy research: The limits of traditional economic analysis. *Strategic Organization*, 1: 413-437.
- Castanias, R. P., & Helfat, C. E. 1991. Managerial resources and rents. *Journal of Management*, 17: 155-171.
- Chadwick, C., & Dabu, A. 2009. Human resources, human resource management, and the competitive advantage of firms: Toward a more comprehensive model of causal linkages. *Organization Science*, 20: 253-272.
- Coase, R. 1960. The problem of social cost. *Journal of Law and Economics*, 3: 1-44.
- Coff, R. W. 1997. Human assets and management dilemmas: Coping with hazards on the road to resource-based theory. *Academy of Management Review*, 22: 374-402.
- Coff, R. W. 1999. When competitive advantage doesn't lead to performance: The resource-based view and stakeholder bargaining power. *Organization Science*, 10: 119-133.
- Collis, D. J. 1994. Research note: How valuable are organizational capabilities? *Strategic Management Journal*, 15(Winter Special Issue): 143-152.
- Connell, C. M. 2007. Fritz Machlup's methodology and the theory of the growth of the firm. *Quarterly Journal of Austrian Economics*, 10: 300-312.
- Conner, K. R. 1991. A historical comparison of resource-based theory and five schools of thought within industrial organization economics: Do we have a new theory of the firm? *Journal of Management*, 17: 121-154.
- Conner, K. R., & Prahalad, C. K. 1996. A resource-based theory of the firm: Knowledge versus opportunism. *Organization Science*, 7: 477-501.
- Connor, T. 2002. The resource-based view of strategy and its value to practising managers. *Strategic Change*, 11: 307-316.
- D'Aveni, R. 1994. *Hypercompetition: Managing the dynamics of strategic maneuvering*. New York: Free Press.
- Dean, A., & Kretschmer, M. 2007. Can ideas be capital? Factors of production in the postindustrial economy: A review and critique. *Academy of Management Review*, 32: 573-594.
- Demsetz, H. 1967. Toward a theory of property rights. *American Economic Review*, 57: 347-359.
- Denrell, J., Fang, C., & Winter, S. G. 2003. The economics of strategic opportunity. *Strategic Management Journal*, 24: 977-990.

- Dierickx, I., & Cool, K. 1989. Asset stock accumulation and sustainability of competitive advantage. *Management Science*, 35: 1504-1511.
- Dosi, G., Faillo, M., & Marengo, L. 2008. Organizational capabilities, patterns of knowledge accumulation and governance structures in business firms: An introduction. *Organization Studies*, 29: 1165-1185.
- Eisenhardt, K. M., & Martin, J. A. 2000. Dynamic capabilities: What are they? *Strategic Management Journal*, 21: 1105-1121.
- Fiol, C. M. 1991. Managing culture as a competitive resource: An identity-based view of sustainable competitive advantage. *Journal of Management*, 17: 191-211.
- Fiol, C. M. 2001. Revisiting an identity-based view of sustainable competitive advantage. *Journal of Management*, 27: 691-699.
- Foss, K., & Foss, N. J. 2008. Understanding opportunity discovery and sustainable advantage: The role of transaction costs and property rights. *Strategic Entrepreneurship Journal*, 2: 191-207.
- Foss, K., Foss, N. J., & Klein, P. G. 2007. Original and derived judgment: An entrepreneurial theory of economic organization. *Organization Studies*, 28: 1-20.
- Foss, K., Foss, N. J., Klein, P. G., & Klein, S. K. 2007. The entrepreneurial organization of heterogeneous capital. *Journal of Management Studies*, 44: 1165-1186.
- Foss, N. J. 1994. The theory of the firm: The Austrians as precursors and critics of contemporary theory. *Review of Austrian Economics*, 7: 31-65.
- Foss, N. J. 1996a. Knowledge-based approaches to the theory of the firm: Some critical comments. *Organization Science*, 7: 470-476.
- Foss, N. J. 1996b. More critical comments on knowledge-based theories of the firm. *Organization Science*, 7: 519-523.
- Foss, N. J. 2007. The emerging knowledge governance approach: Challenges and characteristics. *Organization*, 14: 29-52.
- Foss, N. J., & Ishikawa, I. 2007. Towards a dynamic resource-based view: Insights from Austrian capital and entrepreneurship theory. *Organization Studies*, 28: 749-772.
- Foss, N. J., & Klein, P. G. 2005. Entrepreneurship and the economic theory of the firm: Any gains from trade? In R. Agarwal, S. A. Alvarez, & O. Sorenson (Eds.), *Handbook of entrepreneurship research: Disciplinary perspectives*: 55-80. Norwell, MA: Kluwer.
- Foss, N. J., Klein, P. G., Kor, Y. Y., & Mahoney, J. T. 2008. Entrepreneurship, subjectivism, and the resource-based view: Toward a new synthesis. *Strategic Entrepreneurship Journal*, 2: 73-94.
- Foss, N. J., & Knudsen, T. 2003. The resource-based tangle: Towards a sustainable explanation of competitive advantage. *Managerial and Decision Economics*, 24: 291-307.
- Ghoshal, S. 2005. Bad management theories are destroying good management practices. *Academy of Management Learning & Education*, 4(1): 75-91.
- Ghoshal, S., & Moran, P. 1996. Bad for practice: A critique of the transaction cost theory. *Academy of Management Review*, 21: 13-47.
- Gibbert, M. 2006a. Generalizing about uniqueness: An essay on an apparent paradox in the resource-based view. *Journal of Management Inquiry*, 15: 124-134.
- Gibbert, M. 2006b. Munchausen, black swans, and the RBV: Response to Levitas and Ndofor. *Journal of Management Inquiry*, 15: 145-151.
- Gibbons, R. 2005. Four formal(izable) theories of the firm? *Journal of Economic Behavior & Organization*, 58: 200-245.
- Grant, R. M. 1996a. Prospering in dynamically-competitive environments: Organizational capability as knowledge integration. *Organization Science*, 7: 375-387.
- Grant, R. M. 1996b. Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17: 109-122.
- Groen, A. J., Wakkee, I. A. M., & De Weerd-Nederhof, P. C. 2008. Managing tensions in a high-tech start-up: An innovation journey in social system perspective. *International Small Business Journal*, 26(1): 57-81.
- Hamel, G., & Prahalad, G. K. 1994. *Competing for the future*. Boston: Harvard Business School Press.
- Helfat, C. E., Finkelstein, S., Mitchell, W., Peteraf, M. A., Singh, H., Teece, D. J., & Winter, S. G. 2007. *Dynamic capabilities: Understanding strategic change in organizations*. New York: John Wiley.
- Helfat, C. E., & Lieberman, M. B. 2002. The birth of capabilities: Market entry and the importance of pre-history. *Industrial and Corporate Change*, 11: 725-760.

- Helfat, C. E., & Peteraf, M. A. 2003. The dynamic resource-based view: Capability lifecycles. *Strategic Management Journal*, 24: 997-1010.
- Hodgson, G. M. 2008. The concept of a routine. In M. C. Becker (Ed.), *The handbook of organizational routines*: 15-29. Cheltenham, UK: Edward Elgar.
- Holcomb, T. R., Holmes, R. M., Jr., & Connelly, B. L. 2009. Making the most of what you have: Managerial ability as a source of resource value creation. *Strategic Management Journal*, 30: 457-485.
- Hoopes, D. G., & Madsen, T. L. 2008. A capability-based view of competitive heterogeneity. *Industrial and Corporate Change*, 17: 393-426.
- Hoopes, D. G., Madsen, T. L., & Walker, G. 2003. Guest editors' introduction to the special issue: Why is there a resource-based view? Toward a theory of competitive heterogeneity. *Strategic Management Journal*, 24: 889-902.
- Kim, J., & Mahoney, J. T. 2005. Property rights theory, transaction costs theory, and agency theory: An organizational economics approach to strategic management. *Managerial and Decision Economics*, 26: 223-242.
- Knight, F. H. 1921. *Risk, uncertainty, and profit*. New York: August M. Kelley.
- Kogut, B., & Zander, U. 1992. Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science*, 3: 383-397.
- Kogut, B., & Zander, U. 1996. What firms do? Coordination, identity, and learning. *Organization Science*, 7: 502-518.
- Kor, Y. Y., & Leblebici, H. 2005. How do interdependencies among human-capital deployment, development and diversification strategies affect firms' financial performance. *Strategic Management Journal*, 26: 967-985.
- Kor, Y. Y., & Mahoney, J. T. 2004. Edith Penrose's (1959) contributions to the resource-based view of strategic management. *Journal of Management Studies*, 41: 183-191.
- Kor, Y. Y., Mahoney, J. T., & Michael, S. C. 2007. Resources, capabilities, and entrepreneurial perceptions. *Journal of Management Studies*, 44: 1187-1212.
- Kraaijenbrink, J., & Wijnhoven, F. 2008. Managing heterogeneous knowledge: A theory of external knowledge integration. *Knowledge Management Research & Practice*, 6: 274-286.
- Lado, A. A., Boyd, N. G., Wright, P., & Kroll, M. 2006. Paradox and theorizing within the resource-based view. *Academy of Management Review*, 31: 115-131.
- Langlois, R. 2007. The entrepreneurial theory of the firm and the theory of the entrepreneurial firm. *Journal of Management Studies*, 44: 1107-1124.
- Lavie, D. 2006. The competitive advantage of interconnected firms: An extension of the resource-based view. *Academy of Management Review*, 31: 638-658.
- Leiblein, M. J. 2003. The choice of organizational governance form and performance: Predictions from transaction cost, resource-based and real options theories. *Journal of Management*, 29: 937-961.
- Lepak, D. P., Smith, K. G., & Taylor, S. 2007. Special topic forum on value creation. *Academy of Management Review*, 32: 180-292.
- Levitas, E., & Ndofor, H. A. 2006. What to do with the resource-based view: A few suggestions for what ails the RBV that supporters and opponents might accept. *Journal of Management Inquiry*, 15: 135-144.
- Liebeskind, J. P. 1996. Knowledge, strategy, and the theory of the firm. *Strategic Management Journal*, 17: 93-107.
- Lockett, A., Thompson, S., & Morgenstern, U. 2009. The development of the resource-based view of the firm: A critical appraisal. *International Journal of Management Reviews*, 11: 9-28.
- Mahoney, J. T. 1995. The management of resources and the resource of management. *Journal of Business Research*, 33: 91-101.
- Mahoney, J. T. 2001. A resource-based theory of sustainable rents. *Journal of Management*, 27: 651-660.
- Mahoney, J. T., & Pandian, J. R. 1992. The resource-based view within the conversation of strategic management. *Strategic Management Journal*, 13: 363-380.
- Makadok, R. 2001a. Dialogue: A pointed commentary on Priem and Butler. *Academy of Management Review*, 26: 498-499.
- Makadok, R. 2001b. Towards a synthesis of resource-based and dynamic capability views of rent creation. *Strategic Management Journal*, 22: 387-402.
- Makadok, R. 2003. Doing the right thing and knowing the right thing to do: Why the whole is greater than the sum of the parts. *Strategic Management Journal*, 24: 1043-1055.
- Makadok, R., & Coff, R. W. 2002. Dialogue: The theory of value and the value of theory: Breaking new ground versus reinventing the wheel. *Academy of Management Review*, 27: 10-13.

- March, J. G. 1991. Exploration and exploitation in organizational learning. *Organization Science*, 2: 71-87.
- McGuinness, T., & Morgan, R. E. 2000. Strategy, dynamic capabilities and complex science: Management rhetoric vs. reality. *Strategic Change*, 9: 209-220.
- Menger, C. 1985. *Principles of economics*. New York: New York University Press. (Original work published 1871)
- Miller, D. 2003. An asymmetry-based view of advantage: Towards an attainable sustainability. *Strategic Management Journal*, 24: 961-976.
- Nelson, R. R. 1991. Why do firms differ, and does it matter? *Strategic Management Journal*, 12(Winter Special Issue): 61-74.
- Newbert, S. L. 2007. Empirical research on the resource-based view of the firm: An assessment and suggestions for future research. *Strategic Management Journal*, 28: 121-146.
- Penrose, E. T. 1995. *The theory of the growth of the firm*. New York: John Wiley. (Original work published 1959)
- Peteraf, M. A. 1993. The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal*, 14: 179-191.
- Peteraf, M. A., & Barney, J. B. 2003. Unraveling the resource-based tangle. *Managerial and Decision Economics*, 24: 309-323.
- Pitelis, C. N. 2007. Twenty years resource-based view (or is it 50?): Some (old and) new challenges and need for extensions. *International Journal of Learning and Intellectual Capital*, 4(1-2): 47-56.
- Porter, M. E. 1979. How competitive forces shape strategy. *Harvard Business Review*, 57(2): 137-145.
- Porter, M. E. 1980. *Competitive strategy: Techniques for analyzing industries and competitors*. New York: Free Press.
- Porter, M. E. 1985. *Competitive advantage*. New York: Free Press.
- Powell, T. C. 2001. Competitive advantage: Logical and philosophical considerations. *Strategic Management Journal*, 22: 875-888.
- Priem, R. L., & Butler, J. E. 2001a. Is the resource-based "view" a useful perspective for strategic management research? *Academy of Management Review*, 26: 22-40.
- Priem, R. L., & Butler, J. E. 2001b. Tautology in the resource-based view and the implications of externally determined resource value: Further comments. *Academy of Management Review*, 26: 57-66.
- Pringle, C. D., & Kroll, M. J. 1997. Why Trafalgar was won before it was fought: Lessons from resource-based theory. *Academy of Management Executive*, 11(4): 73-89.
- Romer, P. M. 1990. Endogenous technological change. *Journal of Political Economy*, 98(Suppl.): S71-S102.
- Rumelt, R. P. 1984. Towards a strategic theory of the firm. In R. Lamb (Ed.), *Competitive strategic management: 556-570*. Englewood Cliffs, NJ: Prentice Hall.
- Sarasvathy, S. D. 2001. Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26: 243-263.
- Sarasvathy, S. D., & Dew, N. 2005. New market creation through transformation. *Journal of Evolutionary Economics*, 15: 533-565.
- Sirmon, D. G., Gove, S., & Hitt, M. A. 2008. Resource management in dyadic competitive rivalry: The effects of resource bundling and deployment. *Academy of Management Journal*, 51: 919-935.
- Sirmon, D. G., Hitt, M. A., & Ireland, R. D. 2007. Managing firm resources in dynamic environments to create value: Looking inside the black box. *Academy of Management Review*, 32: 273-292.
- Spender, J.-C. 1983. *Strategic management: A property rights approach*. Working paper, University of California, Los Angeles.
- Spender, J.-C. 1994. Organizational knowledge, collective practice, and Penrose rents. *International Business Review*, 3: 353-367.
- Spender, J.-C. 1996. Making knowledge the basis of a dynamic theory of the firm. *Strategic Management Journal*, 17(Winter Special Issue): 45-62.
- Spender, J.-C. 2005. An overview: What's new and important about knowledge management? Building new bridges between managers and academics. In S. Little & T. Ray (Eds.), *Managing knowledge: An essential reader: 127-154*. London: Sage.
- Spender, J.-C. 2006. *The RBV, methodological individualism, and managerial cognition: Practicing entrepreneurship*. Paper presented at the annual meeting of the Academy of Management, Atlanta, GA.
- Spender, J.-C., & Scherer, A. G. 2007. The philosophical foundations of knowledge management: Editors' introduction. *Organization*, 14: 5-28.

- Stieglitz, N., & Heine, K. 2007. Innovations and the role of complementarities in a strategic theory of the firm. *Strategic Management Journal*, 28: 1-15.
- Teece, D. J. 2007. Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28: 1319-1350.
- Teece, D. J., Pisano, G. P., & Shuen, A. 1997. Dynamic capabilities and strategic management. *Strategic Management Journal*, 18: 509-533.
- Tirole, J. 1988. *The theory of industrial organization*. Cambridge, MA: MIT Press.
- Van de Ven, A. H. 2007. *Engaged scholarship: A guide for organizational and social research*. Oxford, UK: Oxford University Press.
- Van de Ven, A. H., & Polley, D. 1992. Learning while innovating. *Organization Science*, 3: 92-116.
- von Hippel, E. 1986. Lead users: A source of novel product concepts. *Management Science*, 32: 791-805.
- von Mises, L. 1949. *Human action: A treatise on economics*. New Haven, CT: Yale University Press.
- Wade, M., & Hulland, J. 2004. Review: The resource-based view and information systems research: Review, extension, and suggestions for future research. *MIS Quarterly*, 28: 107-142.
- Wernerfelt, B. 1984. A resource-based view of the firm. *Strategic Management Journal*, 5: 171-180.
- Wernerfelt, B. 1995. The resource-based view of the firm: Ten years after. *Strategic Management Journal*, 16: 171-174.
- Williamson, O. E., & Winter, S. G. (Eds.). 1991. *The nature of the firm: Origins, evolution, and development*. New York: Oxford University Press.
- Winter, S. G. 2003. Understanding dynamic capabilities. *Strategic Management Journal*, 24: 991-995.
- Winter, S. G., & Szulanski, G. 2001. Replication as strategy. *Organization Science*, 12: 730-743.
- Witt, U. 1998. Imagination and leadership—The neglected dimension of an evolutionary theory of the firm. *Journal of Economic Behavior & Organization*, 35: 161-177.
- Witt, U. 1999. Do entrepreneurs need firms? A contribution to a missing chapter in Austrian economics. *Review of Austrian Economics*, 11: 99-109.
- Witt, U. 2007. Firms as realizations of entrepreneurial visions. *Journal of Management Studies*, 44: 1124-1140.
- Yelle, L. E. 1979. The learning curve: Historical review and comprehensive survey. *Decision Sciences*, 10: 302-328.