

DOING VERSUS SEEING: ACTS OF EXPLOITATION AND PERCEPTIONS OF EXPLORATION

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The challenge of organizational adaptation is often presented in terms of the tension between the exploration of new possibilities and the exploitation of existing accomplishments. Whether framed in the language of invention versus refinement or local search versus long jumps, the spirit of the argument is of an explicit trade-off that resource-constrained organizations must make to secure their survival and success. While we do not dispute the fundamental truth that underlies this tension, we do believe this dominant characterization of the process of exploration may be masking key drivers of this tension and potential paths towards its resolution. We argue that, from the perspective of an actor, all activities are inherently exploitative in their nature, in the sense that they are undertaken with the explicit expectation that they may achieve meaningful progress on some dimension of performance. The key distinction regards the extent to which the dimension of performance is recognized and legitimated from the perspective of the organizational context in which the actor is operating. Acts perceived as 'exploratory' are, thus, more accurately characterized as acts of exploitation directed along new performance dimensions. We consider the organizational challenges that such exploratory action poses and the implications for entrepreneurial initiatives. From the perspective of the focal actor engaged in the exploratory initiative, the challenge is to identify 'projections' of the payoff of the initiative they are pursuing, either onto those dimensions of performance that are of interest to the organization, or onto more concrete measures of product-market acceptance and financial return. Low-dimensional representations of the business landscape are an inevitable by-product of bounded rationality and the need for organizations and their strategies to coordinate and direct collective action. In this regard, the most powerful form of entrepreneurship may be the initiation of the cognitive shifts that offer a different topology of the competitive landscape. Copyright © 2008 Strategic Management Society.

INTRODUCTION

The exploration/exploitation trade-off captures a fundamental tension in evolutionary systems (Holland, 1975) and has become central in our thinking about the challenge of organizational learning and adaptation (March, 1991). Organizations must make uncertain investments to create the possibility

of more promising futures while, at the same time, they must allocate resources to insure their survival in the face of short-run selection pressures (Levinthal and March, 1993). While we do not dispute the fundamental truth that underlies this tension, we do believe that this dominant characterization of the process of exploration may be masking key drivers of this tension and potential paths towards its resolution. While images of long jumps or drawing from urns may capture mathematical representations of exploratory activities, they serve as stylized—and, arguably, potentially misleading—suggestions of actual exploratory processes. We argue that, from

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the perspective of an actor, all activities are inherently exploitative in nature, in the sense that they are undertaken with the explicit expectation that they may achieve meaningful progress on some dimension of performance. In contrast, from the perspective of an observer, an activity may be perceived as either exploration or exploitation. For the observer, the key distinction between acts perceived as *exploratory* and those perceived as *exploitative* is the extent to which the dimension of performance along which the actor is attempting to progress is recognized and legitimated within the observer's own context. Acts perceived as exploratory are, thus, more accurately characterized as acts of exploitation directed along new performance dimensions.

In the following sections, we develop the implications of this conception of exploration as *other-directed action* rather than *undirected search*. First, we clarify the relationship between the exploration/exploitation distinction and the local-distant search distinction as one that hinges on the difference between dimensionality and distance. Second, we consider two alternative paths that this distinction presents to corporate entrepreneurs: they may attempt to identify ways in which progress on the new dimensions that they are pursuing can be projected onto the payoff surface that is defined on dimensions of performance that are already legitimate within the organization (i.e., mapping their initiative on to the strategic context; Bower [1970]; Burgelman [1983]). Alternatively, they may attempt to legitimize new dimensions of performance and alter the very definition of the payoff surface within the organization. The first approach leverages the strategic context of the organization, but risks constraining the potential novelty of progress. The second holds the promise of a vastly enriched set of organizational activities, but risks diverting resources to pursuits that only make sense to their pursuers. Our characterization of exploration as other-directed action argues that the focal challenge in the management of entrepreneurship is not the specifics of the choice of entrepreneurial activity to be pursued; rather, it is the choice of organizational selection regime in which these activities will be evaluated.

RECONCEPTUALIZING EXPLORATION

Our understanding of the exploration/exploitation trade-off is, in important respects, clouded by

our characterization of the activity of exploration itself. The literature has emphasized the point that exploration is not maximally enhancing to the organization's near-term performance. While this observation is a central property of exploration efforts, it implicitly—and often explicitly—provides an image of exploration as a somewhat random, rather undirected search process: drawing from urns, taking long jumps, and so on. Such images, we suggest, are misleading. Consider a paradigmatic example of exploratory activity—3M's fabled policy of allowing scientists to allocate 15 percent of their time and resources according to their individual discretion. This policy has been identified as an important example of slack search. We agree that this policy illustrates the idea of slack search, but we need to be more careful in how we interpret exactly what this means.

The policy provides *slack* in the sense that the scientists' efforts are not required to be evaluated according to the performance benchmarks of any of the firm's existing initiatives. However, it is also important to note what these scientists are not doing. They are not boating on Lake Superior, nor are they sitting idle in their offices and labs waiting for lightening to strike. Rather, these engineers and scientists are working to solve particular puzzles and problems, and testing various hunches and hypotheses. The critical feature of these activities that we wish to highlight is that these initiatives are not undirected, but *other* directed, where the modifier *other* connotes the notion that the goals and objectives of these discretionary activities need not correspond to the current objectives of the firm. They are pursuing dimensions of progress that, while possibly not orthogonal to the organization's performance objectives, may not be highly collinear with them. These efforts do not correspond to spinning one's wheels. Rather, these efforts correspond to the actors' attempts to climb dimensions of performance not fully sanctioned or recognized by the broader organization.

In Abbott's (1884) allegorical tale, a stranger from *Spaceland* (a world that recognizes three dimensions) attempts to convince an inhabitant of *Flatland* (a world that recognizes only two dimensions) of the existence of a third dimension that he refers to as *height*. Discovering that it is impossible to meaningfully discuss the existence of this third dimension using the Flatland's language and metrics (which, of course, have no spatial constructs that extend beyond length and width), the Spacelander's only way to

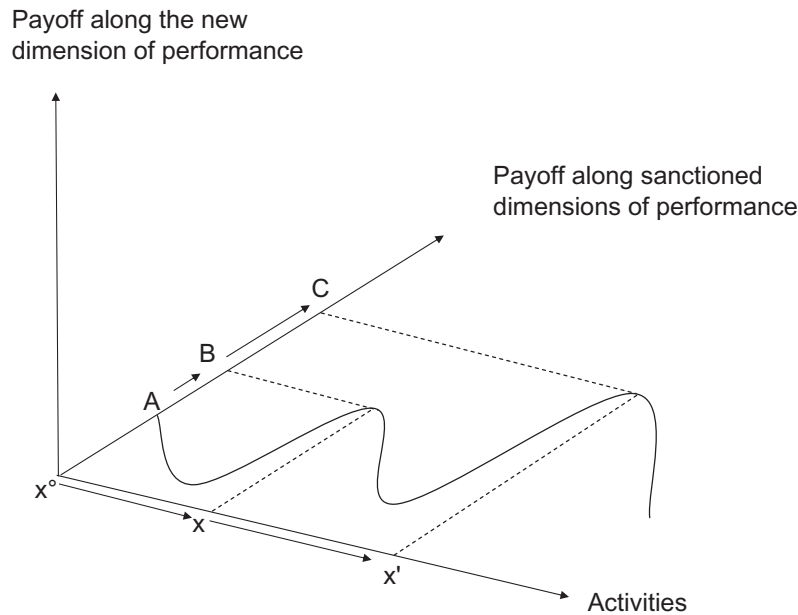


Figure 1. Search distance and payoffs along sanctioned dimensions of performance

convince the Flatlander of the validity of the third dimension is to demonstrate its existence by lifting the Flatlander *up*. Upon viewing Flatland from this raised position, in which he could observe both the two dimensions of the plane as well as witness the new perspective of height, the Flatlander becomes convinced of the existence of the new dimension. When the Flatlander returns from his journey, he tries to convince others of the existence of height. However, without the ability to demonstrate its existence by raising them above the plane, he is branded a lunatic and sent off to isolated confinement.

From the perspective of an entrepreneurial scientist attempting to achieve progress along new dimensions of performance, colleagues who do not (yet) appreciate the value of the new dimension are flatlanders. They are living on the lower-dimensional surface of the officially sanctioned goals of the organization and are sensitive to indicators of progress only on this plane. Entrepreneurs, like Abbott's enlightened Flatlander, are engaged in highly directed activity, but these efforts push them further along a performance dimension that is largely unseen or unvalued by those around them. In the absence of acceptable validation, their efforts are easily relegated to *blue sky* status and comfortably ignored within their organizational context. If an entrepreneur is to validate these other-directed efforts, he or she must find a way to validate the new dimension of performance.

This is a departure from the usual distinction between local and distant search. The distance of search is usually measured as the extent of departure from established routines and behavioral patterns. Figure 1 illustrates the trade-off between the risk of jeopardizing the organization's existing performance position (A), and the promise of finding potentially superior positioning such as B or C, which lie at more distant summits that are either a short-jump (x) or a long jump (x') away.

In contrast to this notion of long jumps, the view of exploration developed here need not imply a significant departure from established routines. Rather, it implies a departure from the established metrics of performance to expand the set of measurement dimensions. Since progress along these dimensions is not necessarily correlated, minor departures from routines that show trivial progress along established dimensions might yield significant progress along alternate metrics (see Figure 2b).

Figure 2a illustrates how a moderate departure from existing routines (x'') can simultaneously yield negative progress along the established performance metrics (from A to A') and positive progress along a new performance dimension (D). In this example, progress along the new dimension projects a negative shadow along the established dimensions of progress.

An example is Christensen's (1997) discussion of disruptive innovation in the hard disk drive

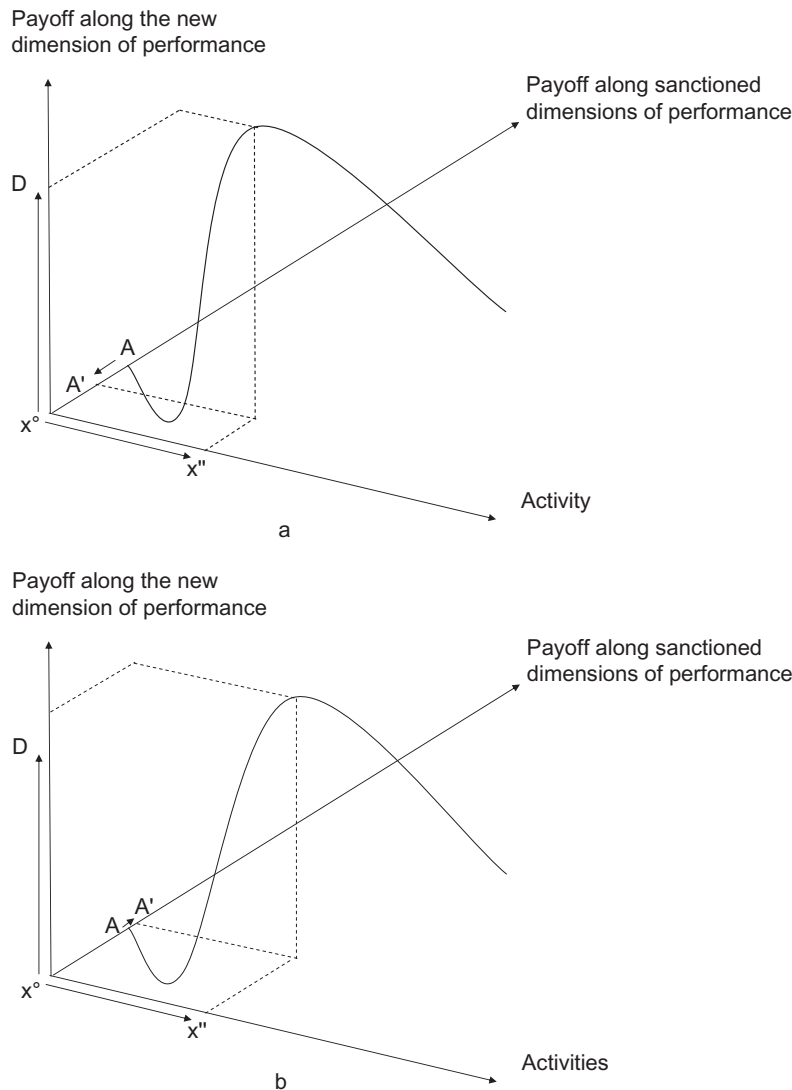


Figure 2a,b. Projection of payoffs along sanctioned and new performance dimensions for alternative activities

industry. Incumbents, who evaluated progress along the legitimized performance dimensions of capacity and speed, did not appreciate the potential of new, smaller disk drive generations—even though they themselves had already developed them (i.e., the routines were already established)—to contribute to value by progressing along the not (as of yet) legitimized dimensions of portability and energy efficiency.

This *casting of shadows* may have a temporal quality as well. An initiative that seemed irrelevant to flatlanders may, with the passage of time, come to be viewed as having importance. For instance, the question of measuring the magnetic resonance

of the atom was an important question in physics in the late 1940s (c.f. Block, Levinthal, and Packard, 1947) and the basis for awarding a Nobel Prize to Felix Bloch in 1952. Bloch and his students were, from their perspective, very much engaged in goal-directed problem-solving research. However, it was not until many decades later that the solution to this puzzle in physics cast a *shadow* on the quest for better diagnostic images of soft-tissues, resulting in the development of Nuclear Magnetic Resonance (NMR) devices.

Organizations and their entrepreneurs confront the problem from opposite directions. On the one side, organizations that seek to foster innovation and

entrepreneurship struggle to find ways to encourage managers to pursue new dimensions of performance. On the other side, those managers who take up the call and pursue progress on new dimensions struggle to find ways of legitimizing their efforts.

Of course, individuals may perceive possible dimensions of performance that are unlikely to ever have any mapping to any pragmatic *real-world* flatland. Poets and dreamers may climb *castles in the sky* or *tilt at windmills*. An important organizational challenge ultimately remains: sorting through initiatives that pursue novel—but potentially pragmatic—dimensions and those that may have relevance only in terms of the dimension that is forming the basis of exploration. How do organizations distinguish between those initiatives that correspond to climbing toward castles in the sky from those that may be unearthing promising new veins of technological progress and product initiatives? An organization's answer to this key question is reflected in the internal resource allocation process and the extent to which this process is designed to support a multiplicity of selection regimes.

FLATLANDS AND CORPORATE ENTREPRENEURSHIP

Organizations facilitate coordinated actions among disparate individuals and subgroups. This coordination is achieved through the alignment of interests either through incentive mechanisms to reduce divergent behavior in the face of goal conflict, or through socialization and the development of shared identity to achieve a greater degree of shared motives. Strategy is an important mechanism to align and direct behavior within organizations. As such, a strategy serves to define and legitimate the dimensions along which progress is to be measured. In so doing, of course, a given strategy also acts to delegitimize the alternative dimensions along which progress could have been made.

While the problem of innovativeness is often defined as a problem of lack of variety (Kanter, 1988), our arguments point to the need to consider the role of selection processes and, in particular, the bases of selection mechanisms. In the traditional view, the solution to the problem of innovativeness lies in mechanisms that enhance the level of experimentation on the part of organizations. Indeed, one natural approach to resolve the exploration/exploitation trade-off is to recognize organizations as hierarchical

systems. Within the organizational hierarchy, each manager may regard his or her own project activities as exploitative, whereas, from the perspective of higher-level actors who may have a substantial portfolio of initiatives under their purview, each individual project may be regarded as an option which the firm may—or may not—choose to continue to pursue. Adner and Levinthal (2004) refer to this distinction as the difference between *holding an option* and *being an option*. Hence, the different perspectives that are inherent in the hierarchical structure of organizations contribute to the presence of ranges of initiatives that may have an exploratory quality.

However, the presence of variety in options (or experimentation) is not sufficient to insure variety in strategy. Indeed, we suggest that the lack of variety is not the constraining factor in limiting the adaptability of organizations. Imagine that a *thousand flowers* have bloomed, but the *gardener* tills over all but one variety of flower. While obviously a caricature, the point is that experiments must be complemented by sufficient variety in the dimensions of performance by which an initiative is evaluated within an organization. Underlying the organizational difficulty of organizations sustaining a diversity of selection criteria is the tendency for resources to be allocated by a singular authority structure within an organization. Thus, while a large organization may have sufficient resources to make multiple *bets*, those individuals who control resource allocation decisions are unlikely to be of multiple minds. While there may well be considerable diversity of opinion within the organization, there is typically a dominant political coalition, and the perspective of this ruling group will tend to drive the resource allocation decisions according to a dominant logic (Prahalad and Bettis, 1986). Indeed, the motivation of entrepreneurs to leave their prior organization may be driven as much by their inability to convince their prior firm to pursue an opportunity that they feel has tremendous promise, as it is associated with an incentive to appropriate for themselves the returns associated with the pursuit of the opportunity (c.f. Klepper and Sleeper, 2005; Christensen, 1997).

ENTREPRENEURSHIP AND THE LEGITIMATION OF OTHER-DIRECTED INITIATIVES

An implication of our distinction between the distance and the dimensionality of progress is that

entrepreneurial initiatives must be defined by more than just the level of uncertainty associated with their outcome. Analogous to Knight's (1921) contrast between risk and uncertainty, we argue that variability in outcomes along existing legitimated dimensions of performance is qualitatively different from uncertainty regarding the merit of the performance dimension itself.¹ Strategic initiatives, despite their inherent Knightian risk, are qualitatively different from *other-directed* initiatives. An initiative's alignment with existing strategic dimensions serves as a substitute for direct evidence of its success. The less aligned the initiative, the higher the required standard of evidence for its approval is. In the absence of legitimacy, hard proof is required. The very act of aligning an initiative along existing strategic dimensions serves to legitimate its purpose and, hence, to facilitate a positive selection outcome.

In the context of corporate entrepreneurship, two logically distinct options seem to be present:

Option 1: Skunk Works

The first option faced by a corporate entrepreneur operating outside the firm's strategic context is to hide the initiative from the internal selection regime. Such projects rely on the individual commitment of their supporters for their resources and face two distinct challenges. First, because they are necessarily hidden from the larger organization, they face an additional set of inefficiencies in accessing the shared capabilities that would otherwise be available to *legitimate* projects. Second, because incremental success is generally accompanied by increased resource requirements, such projects become increasingly difficult to hide. Because they are hidden from the organizational context, the evaluation of skunk works projects is haphazard, coinciding with accidental discovery, a need for non-concealable resources, or the unveiling of the completed initiative.

¹ Knight distinguished between situations of: (1) risk in which multiple outcomes are possible, and in which the probability of these outcomes is quantifiable, and (2) situations of uncertainty in which probabilities are unknowable in advance. In our arguments, the analogue to risk corresponds to the variance in possible outcomes along an existing and agreed upon dimension of performance, whereas the analogue to uncertainty corresponds to a lack of clarity or agreement about appropriate dimensions of performance. Alvarez and Barney (2007) make a related contrast between entrepreneurial efforts of discovery which identify pre-existing opportunities and those that create new opportunities.

The limitation of such an approach is that successful initiatives may not be financially self sufficient and, as a result, require additional funding. One is then back in the position of having to convince some central authority of the merits of the particular initiative.

Option 2: Retrofit

A second approach is to reframe a non-conforming initiative in a way that fits within the official strategy—that is, to identify ways in which progress along the *other* dimension results in a projection of progress along the legitimated dimensions. Burgelman's (1991) discussion of Intel's venture into Reduced Instruction Set Computing (RISC), a venture that required the allocation of precious development resources away from the legitimated approach of Complex Instruction Set Computing (CISC), is a classic example of retrofit. The RISC effort was justified as a complementary project—one of developing a math co-processor to the core CISC processor—rather than on the basis of the RISC team's true intention—developing a substitute platform for a new core processor. By highlighting the benefits to be gained along the existing performance dimension ('this will make for a more compelling CISC offer'), the RISC team found a way of projecting the progress along their own focal dimension (RISC performance) onto the organization's established performance dimension (CISC performance).

Such subterfuge is required when an initiative is targeting illegitimate dimensions because, as in the Flatland tale, describing the existence of a new dimension requires a language and perspective that is unavailable to (passive) observers before they are presented with the definitive, visceral proof of the validity of the new perspective. It is only after a Flatlander is confronted with the reality—rather than the promise—of the new dimension that he or she finds the justification to adjust his or her preexisting map of reality.

Kingdon (1984) applies the *Garbage Can* framework (Cohen, March, and Olsen, 1972) to provide an analysis of how public policy *solutions* rise to the surface of the political agenda amidst many different claims for politicians' attention. In Kingdon's analysis, policy advocates are akin to political entrepreneurs waiting for the alignment of circumstances that allows them to push their agenda to the fore. A powerful contemporary example is the initiation of Operation Iraqi Freedom (OIF) (Mazarr, 2007).

Subsequent to the first Gulf War, there was a concern in the U.S. intelligence community about Saddam Hussein's aspirations for weapons of mass destruction and the proximity of the Iraq military program to achieving those aspirations. During the 1990s, an important group of policy analysts and advocates, largely outside the government at that time, developed and promoted an argument for military intervention to overthrow the Iraqi government. This agenda became highly salient with the tragic events of 9/11, when the administration, under the context of a 'broader war on terror' (Mazarr, 2007: 6), immediately began the development of military plans. The important point here is not whether the military plans were wise or not, or what the exact motivations of the policy advocates were—the key issue (as relates to our arguments) is that these long-standing proposed actions would not have become policy in the absence of the events of 9/11. Kingdon (1984) argues that events, often crises, create *policy windows*, brief moments in time during which attention is attached to particular domains. Successful policy entrepreneurs seize the opportunity and fit their *solutions* to the current perceived *problem* that is galvanizing attention and energy.

Other-directed initiatives face the same challenges in legitimating their claims on resources as did the Spacelander in legitimating his perspective within the confines of Flatland. We suggest that this is a fundamental challenge of the entrepreneur: how to obtain resource commitments for initiatives that appear *foreign* and at odds with existing business models and logics. While the manner in which this challenge is addressed may be different for de novo entrepreneurial ventures that are financed externally and corporate entrepreneurial ventures that are financed internally, the fundamental problem of creating legitimacy remains. Internally and externally there is the possibility of *bootstrapping*, using modest preexisting resources and relying on the profits of product market outcomes, both to provide the basis for scaling up the initiative and for legitimating the novel performance dimension being pursued. Next, we consider how tighter coupling to the external environment can impact the ways in which an organization manages its internal ecology of performance dimensions.

Ecology of Dimensions

We have argued that all purposeful action—both initiatives that might be termed *exploratory* as well

as those viewed as *exploitive*—involve the pursuit of progress on some performance dimension. It may be a performance dimension that only appeals to a small community of researchers—such as the effort to better measure the magnetic resonance of the atom—and appears to be exploratory to the rest of the world. But, that interpretation of the initiative as *exploratory* is with reference to a particular set of actors' reference points of what constitutes relevant and salient dimensions of performance. Thus, one can only view acts of exploration or exploitation relative to a particular actor's vantage point. The tension of exploration versus exploitation is, thus, a challenge of competing world views.

Unfortunately, the solution to this challenge of differing world views cannot be that individuals adopt the union of all performance dimensions that are relevant to the set of actors with whom they are interacting. There are two basic reasons for this restriction of attention. First, progress on some dimensions of performance may cast no *shadows* on the space of economic performance. Second, boundedly rational actors are restricted to low-dimensional representations of more complex realities (Gavetti and Levinthal, 2000). Thus, while it is fashionable to scoff at the simple 2×2 representations that are common in the strategy field, it is important to recognize that individuals are hard pressed to think simultaneously about many more dimensions than that. Gavetti and Levinthal (2000: 117) note that 'Halford *et al.* (1994) find that the most complex statistical relationship that individuals can process in working memory is a three-way interaction (i.e., three independent variables and one dependent variable, for a total of four dimensions).' Thus, there is an important opportunity cost in adding additional dimensions: the risk of adopting a dimension of performance orthogonal to the space of economic payoffs and the addition of a dimension that effectively crowds out a possibly more valuable basis by which to judge performance.

Institutionalizing additional dimensions of performance poses additional hazards to coordinated action with an organization. Strategy, and the set of operational goals, should direct and coordinate action among a disparate group of individuals. As more dimensions are added, attention is inevitably fragmented and the level of coordination is reduced. Attempting to focus simultaneously on a broad array of performance measures can effectively freeze an adaptive system (Ethiraj and Levinthal, 2007).

Linking the organization to the environment

The inherent hierarchy of organizations (Michels, 1915) constrains the extent of variety than can be sustained within them. Skunk works and retrofits, like the dominant organizational logic they attempt to overturn, all rely on a singular selection regime, whether it be the entrepreneur's own belief set, the organization's official strategy, or the entrepreneur's attempt to contort the first into the second. Consider the feedback processes and selection criteria implied by such singularity. One basis of evaluation is an untested belief about the market. Such beliefs will persist by the failure to test them (Weick, 1979), unless proven to the contrary via vicarious learning from others. The other-selection criterion corresponds to fitness with respect to the organization's on-going policies and, more broadly, conception of itself. Clearly, this latter selection criterion is also not likely to introduce novelty and act as a source of change for an organization. An alternative to these internally focused regimes is tight coupling to the external product market (Adner and Levinthal, 2002). While organizations may have a focus on a particular conception of their *core competencies*, or defining markets and mission, there is one common denominator across all business firms—money. A projection onto the performance dimension of financial return provides a credible statement of value, regardless of how far fetched or seemingly unrelated an initiative may be. Further, the external market in which success and failure are ultimately evaluated is a highly variegated environment. Is there a way to use the heterogeneity of the demand landscape itself to create support for *other-directed* ventures? Doing so would require the organization to find a way of mapping the rich dimensionality of the external universe onto the organizationally legitimated surface.

The direct linkage to product and financial markets is often achieved by the formation of a new, distinct organization freed from any authority structure at the corporate office. Such ventures may be kept within the existing organization (e.g., Block and MacMillan, 1993) or managed as partial spinoffs (e.g., Cheshbrough, 2002). Corporate venture funds that may invest in promising internal and external initiatives have become alternative vehicles to achieve such direct linkage (e.g., Dushnitsky, 2006). It is interesting to note that corporate venture capital organizations are often required to find private venture partners to invest alongside them, not just to spread risk, but to safeguard unbiased value assessments

(c.f. Dushnitsky and Shapira, 2007). Such externalization of corporate initiatives provides a fair, but not complete, degree of decoupling from the firm's existing strategic context that a skunk work offers; but, at the same time, this structure imposes some elements of discipline from product market competition and the evaluation of financial markets.²

This argumentation regarding the appropriate bases by which to evaluate performance occurs not only within firms, but also with respect to financial markets' evaluation of firms. Many of the economic actions in which we are most interested do not realize their full implications until some future time period. This is particularly true in the context of technological activity. Research and development activity, by its very nature, cannot be readily evaluated on the basis of contemporaneous outcome measures. The benefits of even more prosaic actions—such as the time and diligence spent solving a customer's problem—will only materialize at some future time point.

It is worth noting that, despite their independence from a specific strategic mandate, investors in financial markets need to rely on metrics of performance as well. The need to establish the legitimacy of such dimensions and to navigate deviations from established benchmarks is present in both internal and external resource markets. For example, Gurley (1999) argues that a key part of Craig McCaw's success in the cable industry (and then in cellular) was his ability to convince financial markets of the appropriateness of nonfinancial measures of performance—such as *homes passed* in the context of cable and *POPs*, or percent of population served, in the context of cellular—as opposed to traditional financial measures such as the price-earnings relationship. As capital intensive businesses, cable and cellular required enormous sums of investment prior to significant evidence of financial return. McCaw was able to convince investors to accept these alternatives as substitutes so that 'even though these companies may have been hemorrhaging cash, investors could now take comfort that a cable franchise was worth \$2,000 per home passed, or that a wireless company was worth \$30 per POP (percentage of population)' (Gurley, 1999).

Recognizing the need for new dimensions of performance to displace existing performance

²We thank Harry Sapienza for making this connection to corporate venture capital.

dimensions casts interesting new light on the question of emergent strategies and their connection to processes of *second-order* change. Novel initiatives, which to uninvolved actors will appear to be exploratory, are those initiatives that pursue a dimension of progress that is not currently legitimate and/or focal to the firm.

In time, this new dimension of performance may be accepted. This may result from validation of this initiative in the marketplace or via the common performance measure of financial performance, a process we refer to as *direct link to the fitness landscape*. Alternatively, this performance dimension may be effectively coupled to existing sanctioned bases of evaluating performance, a process which we term *retrofit*. Such acceptance of a new performance dimension is akin to a second-order change. The firm has now encoded the merit of initiatives on a new basis.

DISCUSSION AND CONCLUSION

Managers are often exhorted to think *outside of the box*. But what constitutes this proverbial box? In general in the literature, we think of this in terms of the proximity of behavior to current initiatives. A radically distinct behavior is a *long jump* to a substantially new domain of action. However, we suggest that even substantially divergent action, if evaluated on the basis of existing performance criteria, results in a certain conservatism. Consider the contrast of Figures 1 and 2. Figure 1 provides the now typical imagery of a rugged landscape. Movement along the domain of action yields a non-monotonic performance payoff. However, Figure 1 is conservative in the sense that all the perturbation in performance is constrained to the existing dimension of performance. In contrast, Figure 2 indicates how even modest changes in behavior may yield dramatic changes on the new dimension of performance, even if the change in behavior only casts a modest shadow on the existing performance criterion.

Entrepreneurship is about novel acts. However, the novelty of the behavior does not, in and of itself, constitute entrepreneurship. Moving along existing technological trajectories or extending existing business models may impose tremendous individual and organizational demands. There may be questions of the feasibility of these initiatives and uncertainty as to their payoff on the existing agreed upon performance criteria. However, efforts to climb and claims

about the value of new dimensions of performance are a far more fundamental source of novelty.

From an organizational management perspective, this challenge implies the need to consider two forms of organizational slack, and to choose their relative allocation. The first, more traditional form of slack, typified by 3M's fabled 15 percent rule, characterizes the extent of an organization's openness to allocating resources to activities with variable outcomes along established performance dimensions. The second form of slack, which is our focus here, characterizes the openness of the organization's internal selection processes to evaluating the outcomes of new ventures along new dimensions of performance.

The pursuit of a new dimension, from the perspective of those lying on the *flatland* of the existing accepted view of the payoff space, appears to be exploratory behavior—the exertion of energy and resources to an end that has no (or little) apparent consequence for how we currently define progress or performance. However, we suggest that what is termed *exploratory* behavior can better be understood as *exploitive* activity on a dimension of performance not currently accepted or recognized.

Entrepreneurs have a distinct vision. They see the payoff space in a different light than other actors and pursue avenues of progress along those dimensions of perceived value. However, entrepreneurs cannot act in a vacuum. Effective entrepreneurs, whether inside the corporate context or external to it, must acquire sufficient material and financial resources to sustain their efforts. To do so in the immediate term, they must validate this endeavor in terms that a *flatlander* can appreciate. In the longer term, there is the possibility of transforming perceptions of the payoff surface itself. While we are all condemned to live in *flatlands*, as our understanding of performance metrics inevitably is of very modest dimensionality, projecting the true business landscape on different bases can offer radically different representations of the payoff surface. In this regard, cognitive shifts that offer a different topology of the business landscape are, arguably, the most powerful forms of entrepreneurship.

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