**<title>Chapter 1: Why Innovation Needs a Different Kind of Execution**

Why did such companies as Xerox and Sears continue to struggle even after they figured out the genius behind Canon's personal copiers and Wal-Mart's new every-day-low-price discount retailing format. Because the leaders of any ground-breaking new business must not only identify the big idea but also (1) attract funding, (2) learn quickly from success and failure, (3) rally people around a fuzzy view of the future,(4) reorganize to leverage the lessons learned, and (5) manage expectations of performance amid chaos.

In established organizations, habits can thwart the leader's efforts even more. On top of the above challenges, the leader must also (1) protect funding for NewCo regardless of the performance of CoreCo, (2) establish new organizational norms and policies that make sense for NewCo, (3) overcome tensions with CoreCo where those norms and policies conflict, (4) effect changes in the existing power structure required to support NewCo, (5) engage CoreCo employees in supporting NewCo, and (6) recruit talented CoreCo managers to work within NewCo. The degree of managerial difficulty is very high.[1]

Hoping to shed some light on these challenges, researchers have studied the role of the leader of NewCo. The tenor of Gifford Pinchot's book, *Intrapreneuring: Why You Don't Have to Leave the Corporation to Become an Entrepreneur,* typifies their findings:

The Intrapreneur's Ten Commandments[2]

1. Come to work each day willing to be fired.
2. Circumvent any orders aimed at stopping your dream.
3. Do any job needed to make your project work, regardless of your job description.
4. Find people to help you.

5. Follow your intuition about the people you choose, and work only with the best.
6. Work underground as long as you can — publicity triggers the corporate immune mechanism.
7. Never bet on a race unless you are running in it.
8. Remember it is easier to ask for forgiveness than for permission.
9. Be true to your goals, but be realistic about the ways to achieve them.
10. Honor your sponsors.

Certain ingenious, creative, and highly determined souls can doubtless overcome both the long odds facing any strategic experiment *and* the organization fighting them at every turn, but these people are rare. Organizations are almost always more powerful than individuals. Corporations that truly want to build the capacity for strategic innovation cannot simply hope for a few good intrapreneurs to save the day on their own initiative.[3]

Past research has also called for leaders of strategic experiments to appoint a senior executive "champion" — a constant aide who actively musters support for NewCo and breaks down barriers in CoreCo. Such an effective champion can surely help, but the odds of success are still low. For example, Polaroid focused on commercializing services that enhanced vacation experiences with photography.[4] The leader of NewCo had all the right stuff — boundless energy, an ability to excite others enough to contribute after hours, an attitude in sync with the "Ten Commandments," and an especially dedicated senior executive champion. Nonetheless, she could neither secure an unflinching commitment from the top nor uproot interests that wanted to co-opt and reconstitute NewCo as a new marketing mechanism for CoreCo. Of course, we cannot know whether that strategic experiment would have succeeded even in the best possible organizational setting—but CoreCo never gave it a realistic chance.

Simply put, strategic experiments will fail whenever the company relies solely on the heroism of a hyper-talented intrapreneur, even one with a great idea, and even one backed by an equally gifted senior executive champion.

**<HEADING A>The Innovation Skills of Creativity and Execution**

We asked hundreds of executives in Fortune 500 companies to rate their company's innovation skills—specifically their *creativity* and *execution*--on a scale of one to ten, where one represents minimal skill and ten represents complete mastery. Survey participants overwhelmingly believe that their companies are far better at generating good ideas (score of at least five or six) than they are at determining what to do with them (scores as low as one or two.)

We think of an organization's capacity for innovation as the *product* of creativity and execution. *Product*, not *sum*, because clearly, if either creativity or execution is zero, then capacity for innovation is also zero. Some quick math: Which is more effective — lifting your creativity score from six to seven, or doubling your execution score from one to two?

Nonetheless, most companies, when hoping to improve innovation, focus on generating ideas. Managers obsess over the front end of the innovation process. But the real leverage is in the back end—in execution.

Interestingly, we are touching on that age-old question, Which matters more, a great strategy or great execution? In the context of innovation, the case for execution is very strong.[5] The value of a strategy (the value of an innovative idea) is limited by the need for experimentation. It involves great uncertainties. Even a well-researched business

plan includes a great deal of guesswork and skepticism. Therefore, it is not the idea that counts. It is what you do with it.

**<HEADING A>The Mystery of the Middle**

If ideas are only a beginning and organizations are more powerful than people, then which kind of organization excels at turning ideas into profit?

According to conventional wisdom, innovative organizations *break all the rules* and have little in common with disciplined, efficient ones. There is some validity to this notion. For example:

(A) To be efficient

- you stick to your knitting.
- you exploit what you know.
- you meet current customer needs.
- you plan.
- you demand accountability.
- you impose process and structure.

(B) To innovate

- you think outside the box.
- you explore what you don't know.
- you anticipate future customer needs.
- you let things emerge.
- you allow freedom and flexibility.
- you avoid process and encourage unstructured interaction.

We call these approaches Formula A and Formula B. Formula A encourages discipline, Formula B encourages creativity. In most companies, Formula A is mainstream, and Formula B is counterculture. In our research findings, clashes between the two are pervasive. Inevitably, the core business believes that Formula A delivers results and the new business must soon deliver results, too. The new business believes

that it needed Formula B to get started and wants to stick with that formula. Both sides are passionate. The debate dominates meetings and defines each agenda.

Such struggles are unproductive. Consider that every innovation story has a beginning, a middle, and an end. Great companies are masters of efficiency — Formula A— but usually not until the *end* of the innovation process. Most companies also understand that creativity can be efficiency's opposite. That is good also, because creativity dominates the *beginning* of the innovation process.

In the middle, most companies are lost. They gnash teeth over the stark contrasts between the two organizational formulas A and B. But during NewCo's awkward adolescence, neither creativity nor efficiency is the dominant priority. The need for creativity declines once there is a business plan, and focusing on efficiency is premature until the business is proven and stable.

So the question is: What is the nature of the journey from business plan to profitability? From creativity to efficiency? What kind of organization can excel in the *middle* of the innovation process?

Let's call it Formula X. We dedicate the rest of this book to revealing the specific elements of Formula X that will help you to turn mere concepts into breakthrough growth. First, recognize that Formula X is not simply a mix of A and B. Formula A may be black, and Formula B white, but Formula X is *not* gray.

Formula X must address unique challenges that arise from the unnatural coexistence of a new and mature business within the same corporation. There are three: a forgetting challenge, a borrowing challenge, and a learning challenge (see Figure 1-1). NewCo must *forget* some of what made CoreCo successful. It must *borrow* some of

CoreCo's assets – the greatest advantage NewCo has over independent startups. And it must *learn* new skills and capabilities from scratch.

<Insert Figure 1-1 Here>

**<HEADING A>The Forgetting Challenge**

Why must NewCo forget?[6] Executives usually repeat actions that they believe to have produced success. If success continues, then not just individual executives but entire organizations shift from consciously repeating these actions to unconsciously accepting these actions as correct. Soon, these assumptions are embedded not only in managers' minds but also in the relationships, processes, and communication patterns that make the organization tick. Even when facing failure, organizations struggle to reassess these deeply entrenched assumptions. They become orthodoxy.[7]

NewCo must forget three items in particular. First, it must forget CoreCo's business definition. Strategy itself can become an orthodoxy, as answers to the basic questions that define a business — Who are our customers? What value do we provide? How do we deliver that value? — become second nature.[8] NewCo must have freedom to answer these questions differently — even to pursue options that may cannibalize CoreCo revenues. Second, NewCo must recognize that a different business model requires different competencies. The areas of expertise that contributed to CoreCo's success will not matter as much to NewCo as the new competencies it must develop. Finally, NewCo must forget CoreCo's focus on *exploitation* of a proven business model and shift to *exploration* of new possibilities.

For example, when GM created OnStar, it had to adapt to a new business model — the communications services market demanded a much different value proposition and

a much shorter product development process. It had to build a new competency in information technology and make it preeminent within OnStar. And it had to systematically identify and eliminate unknowns, rather than exploit a proven business.

**<HEADING A>The Borrowing Challenge**

NewCo must also borrow from CoreCo to compete effectively against start-ups. Consider the advantages that independent start-ups have over existing corporations. They can offer the possibility of tremendous wealth to the management team. They can move quickly, unhindered by the bureaucratic decision-making processes that sometimes debilitate large corporations. They benefit from the advice of professional investors who understand the needs of new ventures. And they have no existing practices or processes to overcome — that is, they have nothing to forget.

Corporations can overcome these disadvantages by leveraging their numerous assets — existing customer relationships, distribution channels, supply networks, brands, credibility, manufacturing capacity, expertise in a variety of technologies — that start-up ventures can only dream of. Corporations also account for the vast majority of research and development spending; they are at the forefront of science. Finally, they generally have greater and more consistent access to capital than is available through the venture capital community and the IPO market. NewCo will probably fail if it cannot tap into these resources.[9]

In fact, in every strategic experiment that we studied, part of the justification for making a risky investment was that there was some unique asset or capability that CoreCo could offer NewCo. Corning could help CMT with its existing facilities and its expertise in manufacturing processes requiring precise control of tiny quantities of fluids.

The New York Times Company offered New York Times Digital, its Internet division, a well-respected brand plus all of the journalistic content it produced for the newspaper. Analog Devices lent its expertise in semiconductor manufacturing methods to its strategic experiment to commercialize a new technology for automotive crash sensors.

**<HEADING A>The Learning Challenge**

The third is the learning challenge. The notion of organizational learning is a broad one, but in the context of strategic innovation, its meaning is very specific.[10] One learning curve matters more than any other for NewCo: improvement in predictions of business performance.

At the outset, such predictions are always wild guesses. For example, revenue forecasts for three years out are commonly off by a factor of ten. But as the management team learns, wild guesses become informed estimates, and informed estimates become reliable forecasts (see Figure 1-2).

<Insert Figure 1-2 Here>

This learning is crucial. The faster predictions improve, the faster NewCo will zero in on a working business model — or abandon a failed experiment. Fast learning minimizes time to profitability, minimizes risk exposure, and maximizes the probability of a major victory over the competition.

In the process of learning to predict performance, NewCo proves or disproves theories about what can work. Initial theories are usually wrong. For example, Corning anticipated that mastering the specialty glass manufacturing steps would be the most challenging part of manufacturing DNA microarrays but found much bigger challenges elsewhere. New York Times Digital initially expected to build a separate and

independent newsroom for the new online medium but eventually found this unnecessary. Analog Devices anticipated that its new semiconductor technology would lead to the development of several new markets beyond the market for automotive crash sensors, but only the automotive market proved economically viable. The faster these kinds of uncertainties are resolved, the sooner NewCo can put itself on a clear path to success.

**<HEADING A>An Organization's Inner Logic**

Successful execution of strategic experiments requires more than a great leader. No single person is strong enough to address the real sources of the forgetting, borrowing, and learning challenges. The roots of these challenges lie deep within an organization's inner logic.

To understand what this inner logic is, an analogy to the life sciences is in order. Biological organisms have an underlying code that shapes their skills, abilities, and behaviors. That code is written in each organism's DNA. The code guides the organism in its pursuit of growth, in dealing with environmental stresses, and in overcoming diseases. For most people — molecular biologists excepted — DNA is completely unobservable and mysterious. And yet our genetic inheritance has an enormous impact on who we are and what we do.

Organizations also have a hidden code — a logic, not easily observable, that determines the collective skills, abilities, and behaviors of the organization. An *organizational DNA*, if you will. The difference between biological DNA and organizational DNA is that the latter can be manipulated by senior executives.

Organizational DNA is not simply inherited at birth. Consciously or unconsciously, the elements of DNA are selected by leaders. Organizational DNA can be

changed, though not easily. DNA becomes deeply entrenched fairly early in an organization's life. It can be changed only through a diligent and time-consuming effort by the senior team.

At the launch of a strategic experiment, however, senior executives have the unusual opportunity to create a new DNA from scratch. They can establish a unique inner logic for NewCo by borrowing all or none of the DNA from CoreCo. Constructing a DNA for NewCo requires careful consideration because DNA is extraordinarily powerful. In fact, DNA is the only force powerful enough to overcome the challenges of forgetting, borrowing, and learning.

Organizational DNA consists of four elements: staff, structure, systems, and culture, as summarized in Figure 1-3 and Figure 1-4.[11] Executives should not underestimate the importance of DNA. Consider these well known companies where just one aspect of the impact that each element of DNA can have:

- Staffing choices can create new areas of expertise, e.g. Cisco "hires" talented networking engineers by acquiring small technology companies.
- Structure shapes an organization's flexibility, e.g. General Electric's decentralized structure enables it to serve markets as diverse as credit cards and nuclear reactors.
- Systems send signals regarding dimensions of performance that are more or less valued, e.g. 3M's "30% rule" demands that 30 percent of revenues in any year come from new products.

- Culture establishes the values that employees aspire to, e.g. “the credo” at Johnson & Johnson captures the central promise that the organization makes to each of its stakeholders.

<Insert Figure 1-3 Here>

<Insert Figure 1-4 Here>

In the context of strategic innovation, DNA matters because CEOs cannot be on call to solve every problem that NewCo faces. They cannot *make* every decision. Instead, they must *shape* decisions by encoding assumptions, values, and decision biases into an organization’s DNA — *at the time NewCo is created*.

*Staff* includes attributes of leadership style, plus policies for hiring, training, and promotion. When building NewCo, senior executives must decide who should lead. Entrepreneur or corporate executive? An insider who is politically connected within CoreCo or an outsider who is more familiar with unique NewCo technologies? A general manager or a technical expert? A naïve young executive who cannot imagine failure, or a seasoned executive who cannot risk failing, losing everything invested toward reaching the top? Where should the remaining staff come from? It may be more convenient to transfer insiders, but only outsiders are capable of bringing in new expertise and new perspectives. Should outsiders fill management posts within NewCo or just operational ones?

*Structure* includes the specification of formal reporting relationships, decision rights, information flows, and task flows. A key decision is who the head of NewCo should report to. The functional manager within CoreCo who can help NewCo the most? A general manager of an existing business unit? Directly to the CEO? In any case, what

roles should the executive to whom NewCo reports be prepared to play? Should he or she simply set expectations and monitor results, or is the role more complex? What should the reporting structure inside of NewCo look like? Should it mimic the structure of other CoreCo business units? How and for what purpose should NewCo and CoreCo interact? Which should be the more powerful party in the interaction?

*Systems* include planning and budgeting processes, norms for evaluating business performance, selection of performance measures, and incentive systems. What expectations are reasonable for NewCo? To what extent can the leader of NewCo be held accountable for the results of an experiment? How frequently should NewCo be evaluated? On what basis? Which performance measures are most relevant? How similar are these measures to the ones used in CoreCo? How much should be invested in NewCo and when? How frequently should NewCo's budget be revisited? Finally, what career and compensation incentives make sense for NewCo's leaders? If they have the opportunity for tremendous bonuses, what commensurate risks are they exposed to?

Finally, *culture* includes shared notions about behaviors that are valued and embedded assumptions about what leads to success in business. Which assumptions that are deeply ingrained in CoreCo may not apply to NewCo? Which elements of CoreCo's culture might create barriers for NewCo, and how can this be overcome? How can a risk-taking, experimental culture be created within NewCo?

**<HEADING A>Organizational DNA and the Three Challenges**

In analyzing each strategic experiments that we researched, we focused on the ability of NewCo to overcome the forgetting, borrowing, and learning challenges. Ultimate success for NewCo depends on several other factors as well, but most are

uncontrollable. For example, because strategy formulation in any nascent market involves a great deal of guesswork, luck plays a role. Among the controllable factors, however, we believe that organizational DNA is by far the most important.

When initiating a strategic experiment, executives must make some difficult choices to give NewCo the DNA it needs. Because of all that must be forgotten, NewCo's DNA must be very different from CoreCo's (see Figure 1-5). For example, NewCo may need external hires to build new areas of expertise while CoreCo emphasizes internal promotion. NewCo may use a flat organizational structure and encourage unstructured interaction while CoreCo prefers more hierarchy and formal reporting. NewCo may emphasize experimenting and learning while CoreCo demands accountability to plans. And NewCo may encourage risk taking while CoreCo seeks a more conservative culture.

<Insert Figure 1-5 Here>

But giving NewCo a unique DNA can lead to resistance. Corporate executives who have played by the rules to work their way up a career ladder within CoreCo will naturally resent changes in routines for establishing organizational hierarchy, assigning staff, granting promotions, allocating resources, providing incentive compensation, or evaluating business performance. Therefore, in creating NewCo, CEOs must be prepared to make unpopular choices. They must avoid making the choices that are easiest and most convenient.

CEOs who are unwilling to make difficult choices simply *replicate* CoreCo's DNA for NewCo. This makes it hard for NewCo to surmount the forgetting challenge, because it remains immersed in CoreCo's assumptions, values, and decision biases. It

also makes it very difficult to learn, because CoreCo's culture and management systems are designed to exploit a proven business, not experiment with a new one. When NewCo's DNA is the same as CoreCo's, NewCo is only effective at borrowing. It overcomes only one of the three challenges.

Other CEOs are willing to create a unique DNA for NewCo but become preoccupied with the conflicts and tensions that result at points of interaction between NewCo and CoreCo. For example, CoreCo understands existing customers, but NewCo must be attentive to emerging customers. CoreCo is focused on efficiency, often through rigorous definition of processes, while NewCo must remain flexible and emphasize learning. And CoreCo is loathe to prioritize the long-term needs of tiny NewCo over the immediate needs of its much bigger business. Not surprisingly, the executives we spoke with often cited points of interaction between NewCo and CoreCo as critical trouble spots.

This leads to an urge to *isolate* NewCo from CoreCo, a step that some have suggested is necessary.[12] But we maintain that this is an overreaction to legitimate concerns. An isolated NewCo may succeed at forgetting and learning but will not be able to borrow, because borrowing requires interaction. And an ability to borrow existing assets is the most important advantage that corporations have over independent start-ups.[13]

Neither replication nor isolation works. Replication facilitates borrowing, but not forgetting or learning. Isolation may allow forgetting and learning, but not borrowing.

Note that for innovation initiatives *other* than strategic experiments, replication or isolation can work. For example, a new product launch that does *not* alter the business

model may succeed through replication — it need not forget. And, an investment in a new business that is *completely* unrelated to the core business may succeed through isolation — it need not borrow. But a strategic experiment must both forget and borrow (see Figure 1-6).

<Insert Figure 1-6 Here>

Indeed, the process of strategic innovation demands a design that overcomes all three challenges. We will explore the specifics of how to do so in the chapters that follow.[14]

In brief, we will see that NewCo can *forget* only by departing from CoreCo's organizational norms. NewCo must have its own DNA.[15] Companies that do not give NewCo its own DNA often make the mistake is assuming that conversational awareness of differences between NewCo's and CoreCo's business models is sufficient. Forgetting, however, is about changing behavior. It is easy for NewCo to talk like NewCo but act like CoreCo. As we will see, there are powerful sources of organizational memory at work.

To *borrow*, CEOs must select a *limited* number of links between CoreCo and NewCo. They must then establish favorable conditions for cooperation between NewCo and CoreCo, and then carefully monitor interactions. Figure 1-7 illustrates the tensions between forgetting and borrowing, and how common design approaches fail to enable NewCo to do both.

<Insert Figure 1-7 Here>

Finally, to *learn*, unconventional planning systems are needed, tailored to the dynamic environment that strategic experiments face. The planning approach must value

learning over accountability. And, it must ensure that disparities between predictions and outcomes are analyzed quickly and dispassionately. NewCo will inevitably struggle to learn if it struggles to forget. NewCo cannot find its own success formula if it remains bound to CoreCo's.

Table 1-1 gives a brief summary of the three challenges and methods for overcoming them.[16]

<Insert Table 1-1 Here>

**<HEADING A>A Roadmap for The Book**

In subsequent chapters, we will analyze the stories of several strategic experiments. Though we write about US-based corporations in this book, the subject of strategic innovation is relevant in all corners of the global economy. In fact, the forces of non-linear change may be strongest in emerging economies. Not tied to past investments, some industries in emerging economies are able to "leapfrog" directly from past to future. For example, several Latin American countries jumped straight to a cellular infrastructure rather than laying down miles of wire in rural locations. And online education will likely take hold first in Asia, where escalating growth in demand for higher education drastically outpaces the rate at which new traditional brick-and-mortar institutions can be constructed.

We will review high-growth-potential businesses that turned into financial successes and those that did not.[17] Venture capitalists expect just one breakthrough success for every ten investments in independent startups. Yet, two of the five companies that we profile in this book clearly overcame those long odds. Both are profitable today, and both still have tremendous potential for growth.

Long before you can pronounce a strategic experiment a financial success or failure, you can observe the extent to which it is succeeding in forgetting, borrowing, and learning. Our objective in reviewing each story is not just to tell what happened, but also to explain why it happened and how each organizational DNA decision either accelerated or constrained progress on these challenges. Though we are sometimes critical, we want to acknowledge that we were consistently impressed with the thoughtfulness and intelligence of the people we interviewed. We recognize that our interpretation benefits from both hindsight and an ability to compare experiences across multiple corporations.

We will tackle each of the three challenges in two parts. First, we will dissect the root causes that lead to problems associated with forgetting, borrowing, and learning. Second, we will offer frameworks and recommendations for overcoming each challenge. In general, the chapters in the book alternate from *understanding root causes* to a *developing solutions* chapter. We advise readers that to fully grasp the logic underlying our recommended solutions, it is crucial to understand the root causes.

There is one exception to this chapter layout. Our exploration of the root causes of problems associated with learning is more extensive than it is for forgetting or borrowing. Consequently, we dedicate three chapters to this task. (See Table 1-2.)

<Insert Table 1-2 Here>

A more detailed summary of each chapter follows:

- Chapter 2, “Why Organizations, Like Elephants, Never Forget,” continues the story of Corning Microarray Technologies (CMT) and demonstrates how Corning’s initial choice to replicate its existing DNA for CMT made it very difficult for CMT to overcome the forgetting challenge.

- Chapter 3, “Slaying the Elephant,” describes how Corning subsequently changed CMT’s organizational design. We make several observations about why the revised approach was more successful. We then develop a framework that guides organizational choices so that NewCo effectively copes with the forgetting challenge.
- Chapter 4, “Why Tensions Rise when New Borrows from Established,” summarizes the development of New York Times Digital (NYTD), The New York Times Company’s business unit that provides online news and information services in multimedia format. It describes the difficult stresses that arose as NYTD discovered that it needed to assert its distinctness and independence while continuing to benefit from access to the vast resources of the *New York Times* newspaper.
- Chapter 5, “Turning Tension into a Productive Force,” offers specific roles and responsibilities for a senior executive responsible for ensuring that six types of operational links between NewCo and CoreCo are effective. Today, NYTD is profitable and continues to grow because its organizational design allows forgetting and borrowing at the same time.
- In Chapters 6-9, we focus on the learning challenge. Chapter 6, “Why Learning from Experience is an Unnatural Act,” introduces some key concepts and explains why learning is challenging.
- Chapters 7 and 8, “How Being Bold, Competitive, or Demanding Can Inhibit Learning,” and “How Being Nice, Inspiring, or Diligent Can Be Just as Bad,” shows how the inevitable pressures associated with strategic experiments lead to

specific behaviors and actions, usually well-intended, that disable the learning process by altering aspirations, expectations, and performance judgments. Chapter 7 reviews the history of Hasbro Interactive, an ambitious initiative that targeted the video games market. Chapter 8 analyzes the development of a new services business at Capston-White (not its real name), a large information technology company.

- Chapter 9, "Finding Gold with Theory-Focused Planning," develops a solution for overcoming the barriers to learning described in Chapters 7 and 8. The solution is an entirely different approach to planning, much better suited than conventional planning approaches to the dynamic and uncertain environments faced by strategic experiments. Six specific alterations to the planning process are described in this chapter.
- Chapter 10, the concluding chapter, highlights key messages in this book without introducing new analysis or recommendations. We describe the efforts of Analog Devices, Inc., to develop a new technology known as microelectromagnetic machines, or MEMS. To commercialize MEMS, Analog Devices' leadership team succeeded in overcoming all three challenges — forgetting, borrowing, and learning. As a result, the MEMS business is profitable and still has tremendous growth potential.

[1] Researchers have identified many reasons why organizations have difficulty managing strategic innovation. We will continue to discuss specific examples throughout the book — our goal is to increase the odds of success. For further discussion, see Clayton M. Christensen, *The Innovator's Dilemma*, (Boston: Harvard Business School Press, 1997), J. M. Utterback, *Mastering the Dynamics of Innovation*, (Boston: Harvard Business School Press, 1994), and P. Ghemawat, "Marketing Incumbency and Technological Inertia," *Marketing Science,*10 (1991), 161-171.

[2] Gifford Pinchot, *Intrapreneuring: Why You Don't Have to Leave the Corporation to Become an Entrepreneur*, (New York, HarperCollins, 1985).

[3] That said, researchers still believe that encouraging autonomous action on the part of individual employees and providing resources for individual pursuit of experimental projects are the critical elements of innovative organizations. See, for example, See C.W.L. Hill and F. T. Rothaermel, "The Performance of Incumbent Firms in the Face of Radical Technological Innovation," *Academy of Management Review*, 28 (2003), 257-274. Our view is that these characteristics of organizations are important but insufficient to support *strategic* innovation beyond the earliest stages of generating ideas and writing business plans. Further support to this argument can be found in D. Dougherty and C. Hardy, "Sustained Product Innovation in Large, Mature Organizations: Overcoming Innovation-to-Organization Problems," *Academy of Management Journal*, 39 (1996), 1120-1153.

[4] L. Hill, N. Kamprath, and M. Conrad, "Joline Godfrey and the Polaroid Corporation," HBS Case #9-492-037, revised April 4, 2000.

[5] For compelling support of this argument, see Amar Bhide, "Hustle as Strategy," *Harvard Business Review*, 64 (Sept/Oct 1986), 59-65.

[6] The forgetting challenge, in a general context, has been examined by Bo L.T. Hedberg, "How Organizations Learn and Unlearn," Ch 1 in N.C. Nystrom and W.H. Starbuck, eds, *Handbook of Organizational Design*, (Oxford: Oxford University Press, 1981).

[7] This argument is consistent with the notions of a "complacency trap." The more a firm succeeds, the more likely it is that it will view success as a validation of the past. This results in organizational inertia. See, for instance, M. Hannan and J. Freeman, "Structural Inertia and Organizational Change," *American Sociological Review*, 49/2 (April 1984): 149-164, M. Tripsas and G. Gavetti, "Capabilities, Cognition and Inertia: Evidence from Digital Imaging," *Strategic Management Journal*, 21 (2000), 1147-1161, and G. Ahuja and C. M. Lampert, "Entrepreneurship in the Large Corporation: A Longitudinal Study of How Established Firms Create Breakthrough Innovations," *Strategic Management Journal*, 22 (2001), 521-543.

[8] It can be particularly difficult to forget the existing customer. See C. Christensen and J. Bower, "Customer Power, Strategic Investment, and the Failure of Leading Firms," *Strategic Management Journal*, 17 (1996), 197-218 for a discussion of how existing customers can wield extraordinary influence.

[9] The need to borrow in another context, acquisitions, has been highlighted by Philippe C. Haspeslagh and David B. Jemison, *Managing Acquisitions* (New York, The Free Press, 1991).

[10] For a discussion of the learning challenge in a general context, see Barbara Levitt and James G. March, "Organizational Learning," *Annual Review of Sociology* 14, (1988): 319-340.

[11] The major categories of "Organizational DNA," or, alternatively, "Organizational Design" have been defined in different ways by different authors. See, for example, the Star Model in Jay R. Galbraith, *Designing Organizations*, (San Francisco: Jossey-Bass, 2002), and the 7S model in Thomas J. Peters and Robert H. Waterman, Jr., *In Search of Excellence*, (New York: Warner Books, 1984). Our purpose in using the four categories of Structure, Staff, Systems, and Culture is simply to give the concept its most useful form for our inquiry into strategic innovation.

[12] Several researchers agree that autonomous and independent business units, even corporate spin-offs, are necessary to pursue new and uncertain business models. See R. Burgelman and L. Sayles, *Inside Corporate Innovation*, (New York: The Free Press, 1986), J. Bower and C. Christensen, "Disruptive Technologies:

Catching the Wave," *Harvard Business Review*, Jan-Feb 1995, 43–53, and C. Christensen and M. Overdorf, "Meeting the Challenge of Disruptive Change," *Harvard Business Review*, Mar-Apr 2000, 67–76.

[13] While acknowledging the benefits of isolating NewCo from CoreCo, several authors have suggested that leveraging existing corporate assets is also important. See, for example, J. D. Day et al, "The Innovative Organization: Why New Ventures Need More Than a Room of Their Own," *The McKinsey Quarterly*, 21 (April 2001) 20-31, and C. Markides and C. Charitou, "Competing with Dual Business Models: A Contingency Approach," *Academy of Management Executive*, 18 (August 2004), 20-31.See also M. Iasanti, F. W. McFarlan, and G. Westerman, "Leveraging the Incumbent's Advantage," *MIT Sloan Management Review*, 44 (Summer 2003), 58-64 for discussion of why it is important to consider the need leverage corporate assets early in NewCo's life. Our objective is to describe *how* to succeed at simultaneously forgetting and borrowing.

[14] The organizational design that we will propose in this book is similar to C. O'Reilly and M. Tushman's notion of the *ambidextrous organization*. See Michael Tushman, Wendy Smith, Robert Wood, George Westerman, and Charles O'Reilly, "Innovation Streams and Ambidextrous Organizational Designs: On Building Dynamic Capabilities," Working Paper, Harvard Business School, 2004, and M. Tushman and C. O'Reilly, "The Ambidextrous Organization," *Harvard Business Review*, April 2004, 74-81. Both designs call for two distinct organizational DNAs, and both call for some interaction between units. The designs differ in that the ambidextrous design minimizes *operational* integration (interaction between CoreCo and NewCo functions) and emphasizes *strategic* integration — that is, heavy interaction between NewCo and CoreCo at the general management level. Our design has the opposite emphasis. It minimizes interaction between general managers because the general managers have many natural conflicts of interest, and because such interaction can only transfer some of many possible resources within CoreCo to NewCo. It could transfer some knowledge, for example, but even here, a direct connection at an operational level is usually simpler and more efficient than using the hierarchy. To borrow fully from CoreCo, significant but selective interaction at the operational level between NewCo and CoreCo is required. We identify specific opportunities for creating such links and elaborate on the specific roles of the senior management team in facilitating borrowing while maintaining sufficient organizational separation between NewCo and CoreCo.

[15] An alternative view is that CoreCo must *shift* modes of organizing in rhythm with change in the industry. This may be an alternative to in high velocity environments with very short product life cycles. Such industries were not represented in our sample. See S. Brown and K. Eisenhardt. *Competing on the Edge: Strategy as Structured Chaos*, (Boston: Harvard Business School Press, 1998).

[16] An emerging area of interest for strategy scholars is "dynamic capabilities" — internal processes that enable organizations to create new capabilities, and new sources of competitive advantage. An ability to build breakthrough businesses by implementing an organizational DNA that enables NewCo to forget, borrow, and learn, is one example of a dynamic capability. See K.M. Eisenhardt and J.A. Martin, "Dynamic Capabilities: What Are They?" *Strategic Management Journal*, 21 (2000), 1105-1121, and D.J. Teece, G. Pisano, and A. Shuen, "Dynamic Capabilities and Strategic Management," *Strategic Management Journal*, 18 (1997), 509-533.

[17] Because strategic experiments have links to much bigger businesses, and cost allocations are always ambiguous, financial success can be hard to judge objectively. NewCo cannot easily be sold. There is no IPO that enables early investors to cash out and quantify a rate of return.