



# Executive Action

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## Business Is Evolving—Just Not In The Ways You Might Think

by Francisco Dao

Modern business is perhaps the most evolutionary environment to ever exist and natural evolution has much to offer in understanding the challenges faced by management.

Is there anyone out there who hasn't heard the warnings that business is evolving? Talking about business as evolution is surpassed only by cries of "creative destruction" as management prognosticators' most tired refrain. "The cheese is moving! Evolve or die!" Yes, we get it.

This abuse of the evolution analogy is a real shame, because a closer look at biological evolution actually reveals some truly valuable lessons in helping us understand the business environment. Theories such as the *Red Queen Principle* and *punctuated equilibrium* provide useful and frightening glimpses into the challenges facing management.

### Running In Place and the Danger of Managerial Rigidity

Sure, real organizational change is difficult to enact, but what most managers don't quite grasp is that the values and systems that companies establish to maintain their competitive positions result in managerial rigidity that is virtually impossible to change from the inside out.

(Editors' Note: This Executive Action report is based on the article "Lessons From the Red Queen" which first appeared in the May/June 2005 edition of The Conference Board magazine *Across The Board*. For more information and additional articles in the current and past issues of *Across The Board* go to [www.conference-board.org](http://www.conference-board.org))

Understanding an evolution subtheory called the *Red Queen Principle* helps illustrate this point and provides a glimpse at a solution.

In 1973, University of Chicago biologist Leigh Van Valen introduced a theory that explained the need for sexual reproduction; he argued that recombinant mating was a way for organisms to acquire new genes in the battle against parasites. In a nutshell, the new genes keep things fresh so that stagnation cannot set in. Van Valen named his theory after the surreal character in Lewis Carroll's *Through the Looking-Glass* who informs Alice, "Here, you see, it takes all the running YOU can do, to keep in the same place."

For humans, reproducing through sexual interaction creates a continuous refreshing of our gene pool from generation to generation, which keeps internal disease and parasites out of step as they evolve to attack our bodies. Without this constant refreshing, internal pathogens could weaken us, making us unable to survive environmental changes or susceptible to attack by a previously noncompetitive predator. In a company, the internal disease comes in the form of managerial rigidity, inflexible prioritization, and general stagnation. It is these things that, like a depressed immune system, damage our ability to foster innovation and weaken us vis-à-vis our competitors.

Does this analogy really apply to companies? Does internal rigidity really have that much impact on our ability to compete? Yes. Internal inflexibility is the primary obstacle preventing us from responding to disruptive change.

## Predators Lurk as Companies Grow Stale

Clayton Christensen's research shows that dominant companies consistently fail to respond to disruptive market entrants because their internal values and structures are simply unable to work within the new market realities. Attempting to evolve an established company from within is much like trying to will oneself into becoming something else. A developed company can hardly will itself into being something different, any more than a giraffe can will itself to grow a longer neck.

Established expectations of market size, expected margins, and development cycles are virtually impossible to adjust within an existing organization, making it equally difficult to react effectively to disruptive market entrants. Because market disruptors are typically less expensive and lower-margin than the existing product or service, managers in established firms are unable to make a compelling case to fight for the lower-profit end of the business. Unfortunately for the established player, once the disruptive entrant gains a foothold, it begins attacking the more profitable segments of the established firm's market.

## Mergers: An Unsatisfying Meal

Since sex—the combining of DNA from two organisms to create a new one—refreshes the gene pool of natural organisms, some argue that mergers are the key to keeping organizations nimble. In theory they could be, but the miserable track record of mergers paints a different picture. More often than not, mergers are less like mating and more like eating. Despite the use of the word *merger*, there is almost always a dominant acquirer and a submissive acquired.

With the exception of some intellectual property, all of the capabilities of the acquired firm are subsumed within the existing structures of the dominant company. The two firms don't mate so much as one firm eats the other one, which doesn't exactly combine their "genes." After all, if I eat a turkey sandwich, I gain strength from the food, but I don't actually become part turkey. Mergers usually fail to produce truly new organizations.

## Spin-Offs Create New DNA

Perhaps surprisingly, spin-offs have been far more successful. It seems odd that simply breaking off a piece of an existing company could create a new firm with different priorities, expectations, and structures, but the record of spin-offs and autonomous business units supports this thesis. In dealing with disruptive innovations, a spin-off can essentially create new DNA for itself that is in line with handling the demands of a new competitive environment.

Much more than mergers, which entail one company eating another, spin-offs essentially result in a new generation that has the opportunity to grow into its market space while avoiding the internal pathogens so deeply rooted in its parent. The rigid priorities that are so difficult to change regarding costs, overhead, margins, and development cycles are not ingrained in the systems of the new firm.

Consider IBM's (early) success in the personal-computer market when compared to Digital Equipment Corp.'s complete failure to respond to the low-cost challenge of the PC. When faced with this new lower-margin threat, IBM responded by establishing an independent business unit in Florida, far from its New York headquarters. Since the small PC unit was not constrained by existing expectations of profit margins or design restraints, managers in the new division were able to readjust their priorities and create a low-cost architecture that would eventually become the industry standard.

In contrast, Digital struggled with the PC threat by trying to alter its minicomputer designs to compete with the much cheaper PCs. Unable to justify competing in the low-margin PC business while its minicomputers were still highly profitable, Digital was never able to effectively respond to the PC's growing encroachment and was eventually acquired by Compaq.

Leigh Van Valen wrote, "For an evolutionary system, continuing development is needed just in order to maintain its fitness relative to the systems it is co-evolving with." In biological organisms, this continuing

development is done through sexual reproduction. IBM recognized that it could not successfully evolve from within and that the best solution was a spin-off. And indeed, a spin-off, not a merger, produces a truly new organization—and solves the puzzle of the Red Queen.

## Losing Your Balance: An Accelerated Pace of Change

The dangers of internal inflexibility have always been a problem. Why is it more important now? Because we are in a period of unprecedented changes in the global competitive environment. For many years following the introduction of Darwin's theory of evolution, scientists debated whether change was gradual or occurred in fits and starts. Darwin believed the changes were gradual, and most research following *On the Origin of Species* supported this conclusion, but in 1972 paleontologists Stephen Jay Gould and Niles Eldredge raised eyebrows by proposing the idea of *punctuated equilibrium*.

The theory argues that evolution goes through long periods of relative stability punctuated by comparatively short periods of dramatic metamorphosis, driven by environmental changes, such as ice ages. In the rapidly changing environment, many new species emerge, Gould and Eldredge theorized, only to quickly die off due to their inability to adapt to the new conditions.

Do such periods of *punctuated equilibrium* apply to business? The most important indication of *punctuated equilibrium* is a change in the environment that fuels an accelerated pace of evolution. In the business world, the erasing of distance and borders made possible by the Internet and the technological growth of low-cost producers, including the rise of India and China, have definitely created a shift in the competitive environment. More telling, for the first time since the early 1800s, economists are debating the fundamentals of global trade theory as overseas factories turn from low-cost manufacturing to world-class innovation. This shift in capabilities is making it ever more difficult to maintain American comparative advantages.

Has this accelerated the pace of evolution? Consider the situation faced by players in the network-routing market. The Internet boom spawned countless companies in the networking space, from Cisco Systems to Ramp Networks. With Cisco Systems firmly entrenched as the 800-pound gorilla of corporate-class network routing, the bulk of the start-ups were established to serve the market's lower and middle range. As Taiwanese companies entered the lower end of the space, most of the smaller American firms pushed up-market.

The standard comparative-advantage theory of low-cost foreign goods versus high-value American products tells us this was the logical course of action, but here the old rules did not apply. Not only did the smaller domestic firms find themselves encroaching on market space dominated by Cisco, Lucent, and other major players—but Chinese networking firm Huawei had already reached the up-market territory. Where we were once foxes competing against other foxes, the new environment has given us wolves.

What about the second indication of *punctuated equilibrium*—that many new species will appear only to quickly die off? The birth and disappearance of thousands of dotcoms looks conspicuously similar to the rise and demise of species that Gould and Eldredge describe.

## Calls for Change Are Understated

What does this mean to managers? It means that the tired old calls for change are actually understated. It means the competitive environment is undergoing fundamental changes on the scale of the industrial revolution. It means evolutionary fitness is being tested, as much as any time in history. Modern business is perhaps the most evolutionary environment to ever exist and natural evolution has much to offer in understanding the challenges faced by management.

*Punctuated equilibrium* and the *Red Queen Principle* are just two examples that help us understand the effects of internal stagnation on competitiveness and the difference between simple competition and real changes to the global competitive environment. Instead of simply proclaiming, “business is evolving!”, I hope the prognosticators will dig a little deeper and uncover the real business lessons in evolution.

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### About the author

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