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The Fruitful Flaws of Strategy Metaphors

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Summary. Reprint: R0309F The business world is rife with metaphors these days, as managers look to other disciplines for insights into their own challenges. And metaphors can—despite their somewhat flaky image—be powerful catalysts for generating new business... **more**

At the height of the dot-com boom, I joined a few academic colleagues in a meeting with senior executives of a large insurance company to discuss how they might respond to the challenges posed by the Internet. The group was glum—and for good reason. Founded early in the twentieth century, the company had laboriously built its preeminent position in the classic way, office by office, agent by agent. Suddenly, the entire edifice looked hopelessly outdated. Its several thousand agents, in as many brick-and-mortar offices, were distributed across the country to optimize their proximity to customers—customers who, at that very moment, were logging on in droves to purchase everything from tofu to vacations on-line.

Corporate headquarters had put together a team of experts to draft a strategic response to the Internet threat. Once the team had come up with a master plan, it would be promulgated to the

individual offices. It was in this context that, when my turn came to speak, I requested a few minutes to talk about Charles Darwin's conceptual breakthrough in formulating the principles of evolution.

Darwin? Eyebrows went up, but apparently the situation was sufficiently worrisome to the executives that they granted me permission—politely, but warily—to proceed with this seeming digression. As my overview of the famous biologist's often misunderstood theories about variation and natural selection gave way to questions and more rambling on my part, a heretical notion seemed to penetrate our discussion: Those agents' offices, instead of being strategic liabilities in a suddenly virtual age, might instead represent the very mechanism for achieving an incremental but powerful corporate transformation in response to the changing business environment.

A species evolves because of variation among individual members and the perpetuation of beneficial traits through natural selection and inheritance. Could the naturally occurring variation—in practices, staffing, use of technology, and the like—that distinguished one office of the insurance company from another provide the raw material for adaptive change and a renewed strategic direction?

This wonderful construction had only one problem: It was wrong, or at least incomplete. The competitive forces in nature are, as Tennyson so aptly put it, "red in tooth and claw"; to unleash such forces in unrestrained form within an organization would jeopardize a company's very integrity. As our discussion continued, though, the metaphor would be expanded and reshaped, ultimately spurring some intriguing thoughts about ways in which the insurance company might change.

The business world is rife with metaphors these days, as managers look to other disciplines for insights into their own challenges. Some of the metaphors are ingenious; take, for

instance, insect colonies as a way to think about networked intelligence. Others are simplistic or even silly, like ballroom dancing as a source of leadership lessons. Many quickly become clichés, such as warfare as a basis for business strategy. No matter how clever or thought provoking, metaphors are easy to dismiss, especially if you're an executive whose concerns about the bottom line take precedence over ruminations on how your company is like a symphony orchestra.

That is a pity. Metaphors can be powerful catalysts for generating new business strategies. The problem is that, because of their very nature, metaphors are often improperly used, their potential left unrealized. We tend to look for reassuring parallels in business metaphors instead of troubling differences—clear models to follow rather than cloudy metaphors to explore. In fact, using metaphors to generate new strategic perspectives begins to work only when the metaphors themselves *don't* work, or at least don't seem to. The discussion about Darwin at the besieged insurance company offers, in a somewhat compressed form, an example of how this process can play itself out.

Minds Lagging a Little Behind

Metaphors have two primary uses, and each involves the transfer of images or ideas from one domain of reality to another. (This notion is embedded in the Greek roots of the word "metaphor": "phor," meaning "to carry or bear," and "meta," meaning "across.") Both kinds of metaphors were recognized and studied in antiquity, but one of them has been virtually ignored until the relatively recent past.

The *rhetorical metaphor*—you know, the literary device you learned about in school—pervades the business world. Think of guerrilla marketing (from military affairs), viral marketing (from epidemiology), or the Internet bubble (from physics). A metaphor of this type both compresses an idea for the sake of convenience and expands it for the sake of evocation. When top management praises a business unit for having launched a breakthrough

product by saying it has hit a home run, the phrase captures in a few short words the achievement's magnitude. It also implicitly says to members of the business unit, "You are star performers in this organization"—and it's motivating to be thought a star. But as powerful as they may be in concisely conveying multifaceted meaning, such metaphors offer little in the way of new perspectives or insights.

Indeed, linguists would rather uncharitably classify most rhetorical metaphors used in business (home run included) as dead metaphors. Consider "bubble," in its meaning of speculative frenzy or runaway growth. The image no longer invites us to reflect on the nature of a bubble—its internal pressure and the elasticity and tension of the film. The word evokes little more than the bubble's explosive demise—and perhaps the soap that lands on one's face in the aftermath. Such dead metaphors are themselves collapsed bubbles, once appealing and iridescent with multiple interpretations, but now devoid of the tension that gave them meaning.

The *cognitive metaphor* is much less commonly employed and has completely different functions: discovery and learning. Aristotle, who examined both types of metaphor in great depth, duly emphasized the metaphor's cognitive potential. Effective metaphors, he wrote, are either "those that convey information as fast as they are stated...or those that our minds lag just a little behind." Only in such cases is there "some process of learning," the philosopher concluded.

Aristotle recognized that a good metaphor is powerful often because its relevance and meaning are not immediately clear. In fact, it should startle and puzzle us. Attracted by familiar elements in the metaphor but repelled by the unfamiliar connection established between them, our minds briefly "lag behind," engulfed in a curious mixture of understanding and incomprehension. It is in such delicately unsettled states of mind that we are most open to creative ways of looking at things.

The idea of the cognitive metaphor—virtually ignored over the centuries—is as relevant now and in the context of business as it was more than 2,000 years ago in the context of poetry and public speaking. The metaphor's value as a fundamental cognitive mechanism has been realized in a broad range of fields, from linguistics to biology, from philosophy to psychology. The biggest barrier to the acceptance of the metaphor's cognitive status has been its rather flaky reputation among scientists—not to mention business executives—as a mere ornament and literary device. But, while it is true that metaphors—rhetorical or cognitive—are mental constructions of our imagination and therefore unruly denizens in the realm of rational discourse, it is also true that the strict exercise of rationality serves us best in pruning ideas, not in creating them. Metaphors, and the mental journeys that they engender, are instrumental in sprouting the branches for rationality to prune.

A cognitive metaphor juxtaposes two seemingly unrelated domains of reality. Whereas rhetorical metaphors use something familiar to the audience (for example, the infectious virus, which passes from person to person) to shed light on something less familiar (a new form of marketing that uses e-mail to spread a message), cognitive metaphors often work the other way around. They may use something relatively unfamiliar (for example, evolutionary biology) to spark creative thinking about something familiar (business strategy).

Linguists call the topic being investigated (business strategy, in the case of the insurance company) the "target domain" and the topic providing the interpretive lens (evolutionary biology) the "source domain." The nomenclature is appropriately metaphorical in its own right, suggesting a source of light emanating from one domain and shining on the other. Alternatively (as all metaphors can be interpreted in multiple ways), the source domain can be viewed as a wellspring of inspiration that can serve to refresh and revive the target domain.

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However viewed, the source domain can perform its function only if the audience makes an effort to overcome its unfamiliarity with the subject. Superficial comparisons between two domains generate little in the way of truly new thinking. But it is crucial to keep one's priorities straight. The ultimate aim isn't to become an expert in the source domain; executives don't need to know the subtleties of evolutionary biology. Rather, the purpose is to reeducate ourselves about the world we know—in this case, business—which, because of its very familiarity, appears to have been wrung free of the potential for innovation. This reeducation is achieved by shaking up the familiar domain with fresh ideas extracted from a domain that, by virtue of its unfamiliarity, fairly bursts with potentially useful insights.

The Conundrum of Change

My motivation for discussing Darwin's ideas with insurance executives was to see if we could find a way to reconceptualize the basic idea of change itself, as we examined how the company might change to meet the challenges posed by the Internet.

The question of how societies, species, or even single organisms transform themselves has perplexed thinkers from the very beginning of recorded thought. Some pre-Socratic philosophers seem to have accepted the reality of change in the natural world and even proposed some fairly novel theories to account for it. Others, along with their great successors Plato and Aristotle, finessed the question by declaring change an illusion, one that corrupted the unchanging "essence" of reality hidden to mere humans. To the inveterate essentialist, all individual horses, for example, were more or less imperfect manifestations of some

underlying and fundamental essence of "horseness." Change was either impossible or required some force acting directly on the essence.

During the Middle Ages, the very idea of change seemed to have vanished. More likely, it went underground to escape the guardians of theological doctrine who viewed anything that could contradict the dogma of divine order—preordained and thus immutable—with profound suspicion and evinced a remarkable readiness to light a fire under erring and unrepentant thinkers. Ultimately, though, the idea of evolution proved stronger than dogma, resurfacing in the eighteenth century.

It found its most coherent, pre-Darwinian formulation in the theories of the naturalist Jean-Baptiste Lamarck, who believed that individuals pass on to their offspring features they acquire during their lifetimes. Lamarck famously proposed that the necks of individual giraffes had lengthened as they strove to reach the leaves in the trees and that they passed this characteristic on to their offspring, who also stretched to reach their food, resulting in necks that got longer with each generation. Although Lamarck was wrong, his was the first coherent attempt to provide an evolutionary mechanism for change.

Darwin's revolutionary proposal—that natural selection was the key engine of adaptation—traces its pedigree to the intellectual ferment of the English Enlightenment, which was characterized by a belief in the need for careful empirical observation and a wariness of grand theorizing. Long before Darwin, English thinkers in a number of fields had concluded that worldly perfection, as exemplified by their country's legal system and social institutions, had evolved gradually and without conscious design, human or otherwise. In economics, this train of thought culminated in the work of Adam Smith. It is no coincidence that the metaphorical "invisible hand" is as disconnected from a guiding brain as Darwin's natural selection is free of a purposeful Creator.

Darwin's great accomplishment was to establish that a species is in fact made up of unique and naturally varying individuals. His book *On the Origin of Species*, published in 1859, broke the backbone of essentialism in biology by showing that variation among individuals of the same species, rather than representing undesirable deviations from an ideal essence, was the raw material and the prerequisite for change and adaptation.

As my digression on natural evolution neared its end, the drift of the metaphor had clearly captured the imagination of the insurance executives in the room. It was increasingly evident that Darwin's frontal assault on essentialism might be in some way related to the company's current approach to organizational change. Imposing a master plan created at headquarters on the thousands of field offices might not be the only or the ideal way to get the company to change. Viewed through the lens of evolutionary biology, the thousands of agents and field offices might be seen as thousands of independent seeds of variation and natural selection, instead of imperfect incarnations of a corporate essence. If one dared to loosen the tethers that tied the individual offices to headquarters—by no means a minor step in an industry where bureaucracy has some undeniable virtues—these individual offices might provide the means for the company to successfully adapt to the new business environment.

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Finding Fault with Metaphors

To highlight the unique potential and limits of cognitive metaphors in thinking about business strategy, we need only contrast them with models. Although both constructs establish a conceptual relationship between two distinct domains, the nature

of the relationship is very different, as are its objectives—answers, in the case of models, and innovation, in the case of metaphors.

In a model, the two domains must exhibit a one-to-one correspondence. For example, a financial model of the firm will be valid only if its variables and the relations among them correspond precisely to those of the business itself. Once satisfied that a model is sound, you can—and this is the great charm of modeling—transfer everything you know about the source domain into the target domain. If you have a good model—and are in search of explanations rather than new thinking—you may not want to bother with a metaphor.

Like the model, the metaphor bridges two domains of reality. For it to be effective, those domains must clearly share some key and compelling traits. But this correspondence differs from the direct mapping of a model. Rather than laying claim to verifiable validity, as the model must do, the metaphor must renounce such certainty, lest it become a failed model. Metaphors can be good or bad, brilliantly or poorly conceived, imaginative or dreary—but they cannot be "true."

Consider the metaphor of warfare. Occasional journalistic hyperbole notwithstanding, business is not war. But there are revealing similarities. In his magnum opus *On War*, Carl von Clausewitz, the great Prussian military thinker, pondered the question of whether warfare was an art or a science. He concluded that it was neither and that "we could more accurately compare it to commerce, which is also a conflict of human interests and activities."

Reversing Clausewitz's reasoning, you can usefully compare business with war—but only when you take the interpretive liberties granted by metaphorical thought. While Clausewitz's strategic principles can serve as a source of potential insights into business strategy, they do not offer, as a model would, ready-made lessons for CEOs. It takes conceptual contortions to map all

the key elements of war onto key elements of business. For example, there are no customers on a battlefield. (You could argue that an army's customers are the citizens who pay, in the form of taxes and sometimes blood, for the military effort, but this is sophistry, at best.) The effort to turn war into a model for business is twice misguided—for turning a rich source domain into a wretchedly flawed model and for destroying a great metaphor in the process.

Models and metaphors don't compete with one another for relevance; they complement each other. Metaphorical thought may in fact lead to a successful model, as has so often been the case in scientific discovery. Indeed, revolutionary models are just as likely to begin as exploratory metaphors than as equations. Einstein's theory of special relativity grew out of a mental experiment in which he imagined how the world would appear to an observer riding a beam of light.

The problem is that, in business, a potential metaphor is all too often and all too quickly pressed into service as a model. As we have noted, the distinction between the two is not an inconsequential matter of semantics but a fundamental divergence between applying existing knowledge and searching for new knowledge, between knowing and learning. By eschewing the model's promise of explanation served up ready for application to business, we gain the metaphor's promise of novel thinking, which has always been the true wellspring of business innovation. The model represents closure at the end of a search for validity; the metaphor is an invitation to embark on a road of discovery.

Along that road, the mapping of elements from a source domain onto the business world, and vice versa, ultimately breaks down. It is here—at what I call the fault line—that provocative questions are most likely to be raised and intriguing insights to emerge. Why? Those elements of the source domain that lie on the far side of the fault line—the ones that cannot be mapped onto business

without resorting to artifice—must for that very reason be unknown in business. These elements may seem irrelevant to business, or even undesirable, but we can still ask ourselves the crucial question, What would it take to import rather than map the element in question? Can we, in plainer words, steal it and make it work for us?

For example, in exploring almost any biological metaphor, you will encounter sex as a key mechanism. Sex has no generally accepted counterpart in business. The crucial step across this fault line involves asking what mechanism you could create—not merely find, as in a model—in your business that could provide that missing function. What novel functions or structures in your business could play the paramount role that sex has in biology, of replenishing variety through chance recombinations of existing traits? The bold pursuit of the metaphor to the fault line is the prerequisite for this sort of questioning and probing.

Of course, it isn't just novelty you seek but relevant and beneficial novelty. Many things in biology do not map onto business, and most—consider the perplexing mechanism of cell division—may not ultimately be relevant to business. The challenge in making the metaphor do its innovative work resides in zeroing in on a few incongruent elements of the source domain that are pregnant with possible meaning back in the target domain. (For one way to harvest the potential of metaphors in business, see the sidebar "A Gallery of Metaphors.")

A Gallery of Metaphors by: David Gray

If metaphorical thinking offers potentially rich strategic insights, how does one capture compelling and potentially ...

At the Fault Line

The greatest value of a good cognitive metaphor—as it makes no pretense of offering any definitive answers—lies in the richness and rigor of the debate it engenders. Early in its life, the metaphor exists as the oscillation between two domains within a single mind. But in fruitful maturity, it takes the form of an oscillation of ideas among many minds.

As my part in the discussion about Darwin came to a natural end, our hosts at the insurance company eagerly entered the conceptual fray, offering their thoughts on the relevance—and irrelevance—of Darwin's theories to the strategic challenges their company faced. They had no problem seeing the key parallels. Like individual organisms of a species, the company's thousands of field offices resembled each other and the parent organization from which they descended. These offices were living organisms that had to compete for nutrients, inputs that they metabolized into outputs; they had to be productive to survive. They also exhibited more or less subtle deviations from one another as well as from their parent. The variety in business practices that individual offices may have introduced, through commission or omission, was akin to mutation in natural organisms, and the differential success of offices undoubtedly had an effect akin to selection.

In violation of this facile comparison, however, the offices

operated generally in accordance with a central master plan—and only a change in this plan could in principle drive a species-wide transformation. Here at the fault line, we again encountered the dogma of essentialism that Darwin had challenged and laid to rest in biology. As the discussion continued, yet another divergence emerged. A central tenet of evolutionary biology is that there is no purpose in nature, no preestablished goal toward which a species or an ecosystem (or nature as a whole) is evolving. This is not a consequence of modern agnosticism but a theoretical requirement without which the entire edifice of evolutionary theory would come tumbling down. If the metaphorical mapping between biological evolution and business development were as precise as in a model, we would have no choice but to declare that business, too, must be without purpose—a plausible proposition to some, perhaps, but a risky place to start with a group of business executives.

There was another wrinkle. The modern formulation of Darwin's theory rejects the possibility of an individual organism acquiring inheritable characteristics during its lifetime. Rather, those who happen to be born with adaptive traits will succeed at passing them on to more offspring than those having less beneficial traits, thus bringing about change in the population of the species over time. Yet in a well-run insurance company, one must assume that individual agents and offices are perfectly capable of adopting beneficial characteristics and sharing them with other offices —something that, following an unforgiving interpretation of the evolutionary metaphor, would amount to the Lamarckian heresy in biology.

Two other particularly promising discrepancies—not immediately apparent to me or to the others—beckoned from the far side of the fault line. One exposed a gap between the ways in which the process of selection can occur. The company executives had quickly warmed to the idea that thousands of field offices, developing more autonomously than they had in the past, could generate a wealth of adaptive initiatives. But they were doubtful

about how natural processes would separate the wheat from the chaff.

Some noted that, while natural selection may be an appropriate metaphorical notion for eliminating failure in the context of the economy at large, its ruthless finality is irreconcilable with the intent of forging a culture within a working community. In fact, the closest acceptable approximation of natural selection that we could come up with was self-criticism by the increasingly autonomous offices. This clearly was a pale substitute for nature's pitiless means of suppressing the deleterious traits that arise from variation among individual organisms. Indeed, absent that harsh discipline, a surge in variation among the offices could lead to serious deficiencies and organizational chaos.

The fault line also cut through the concept of inheritance. Although Darwin had no inkling of the existence of genetic material, his grand evolutionary engine is inconceivable without a precise mechanism for passing on traits to the next generation. But there is no precise and definable reproductive mechanism in business and hence no readily discernible equivalent to inheritance in biology. Without such a mechanism, there is little to be gained, it seems, from giving field offices greater freedom to experiment and develop their own modes of survival because there is no assurance that good practices will spread throughout the organization over time.

So here we were, looking across a multifractured fault line—the position of choice for the serious practitioner of metaphorical thinking. Only from this location can you pose the question that is metaphor's reward: What innovative new mechanism might eliminate the voids in the domain of business that have been illuminated by the metaphorical light shone on it from the domain of biology? In response, we found ourselves straying from Darwin's theory per se and instead examining the history of evolutionary theory—focusing in particular on a cognitive metaphor that Darwin himself used in the development of his

own innovative ideas.

Among Darwin's many pursuits was the breeding of pigeons, an activity in which he practiced the ancient art of *artificial selection*. He knew that, by meticulously eliminating pigeons with undesirable traits and by encouraging sexual relations between carefully selected individual pigeons whose desirable traits could complement each other, he could swiftly achieve remarkable improvements in his flock. The genius of Darwin's evolutionary theory was that it made clear how haphazard conditions in nature could combine to have an effect similar to that of breeding, albeit at a much slower pace and without the specific direction a breeder might pursue. Darwin's mental oscillation between the two domains of change through breeding and change in the wild is a sparkling illustration of the cognitive metaphor at work.

Of what possible relevance could this expanded metaphor be to a business setting where the forces of natural selection—and the slow promulgation of desirable traits through generations of reproduction—were absent? How could particularly adaptive ideas developed by one insurance office be made to spread throughout the organization without recourse to a central model?

While it may be bad literary style to mix one's metaphors, no such stricture exists in cognitive pursuits.

In the give-and-take triggered by such ideas and questions, it gradually became clear that the practice of breeding pigeons was the more revealing metaphor for the company than Darwin's theory of evolution in the wild. You could grant individual offices substantial degrees of freedom in certain areas while ensuring that headquarters retained control in others. The offices could develop their own individual metrics for evaluating progress in a way that reflected local differences and the need for local

adaptation. Weaker-performing offices could be more or less gently encouraged to seek advice from more successful ones, but they could retain the freedom to determine which offices they wished to emulate. Rotating managers among field offices or creating an organizational structure specifically designed to encourage—but not mandate—the spread of successful practices developed by distant offices could serve similar ends.

Such measures are arguably more akin to the interventions of a breeder than to the vagaries of nature. The metaphorical journey had led us to notions that judiciously combined a deep awareness of and deference to the natural processes reminiscent of biology with the obligation—of business managers and breeders alike—to provide intelligent purpose and strategy. We had failed spectacularly at modeling business practice to anything recognizable—and that was precisely the gain. Working the metaphor, we had come up with ideas for achieving strategic adaptation through the establishment of guidelines for managing the variation that leads to change—instead of engineering the change itself.

Working Metaphors

A few weeks later, the executive who had led the meeting of senior company managers asked me to attend a gathering of several dozen regional managers and agents in the field. At the end of his remarks to the group, which dealt with the business challenges posed by the Internet, he launched into a serious and compelling discussion of the basics of Darwinian evolution. This was not the casually invoked rhetorical metaphor, to be tossed aside as soon as its initial charm fades. It was a genuine invitation to explore the cognitive metaphor and see where it might lead. We must work on metaphors in order to make them work for us. This executive had done so—and was ready to engage other eyes and minds in further work.

As our earlier discussion of Darwinism had shown, such work—if it is to be productive—will be marked by several characteristics.

We must familiarize ourselves with the similarities that bridge the two domains of the metaphor but escape the straitjacket of modeling, freeing us to push beyond a metaphor's fault line. The cognitive metaphor is not a "management tool" but a mode of unbridled yet systematic thought; it should open up rather than focus the mind.

We must similarly resist the temptation to seek the "right" metaphor for a particular problem. On the contrary, we should always be willing to develop a suite of promising ones: While it may be bad literary style to mix one's metaphors, no such stricture exists in cognitive pursuits. Evolution may be a particularly compelling metaphor because, I believe, essentialist modes of thought still permeate our basic beliefs about the workings of business. As such, it is wise to keep evolution in one's metaphorical treasury. But we must be wary of declaring evolution—or any metaphor—a universal metaphor for business. We must always be ready to work with alternative metaphors in response to the maddening particulars of a business situation. Moreover, because language is social and metaphors are part of language, it should be no surprise that our best metaphorical thinking is done in the company of others. Perhaps most important, the discussion that a metaphor prompts shouldn't be concerned with the search for truth or validity; it should strike out playfully and figuratively in search of novelty.

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