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Do You Have A Survival Instinct?

Leveraging genetic codes to achieve fit in hostile business environments

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Abstract

It is too easy to blame market turbulence or unexpected events for a company's poor performance. Yet this is frequently the response of managers to circumstances and activities beyond their immediate control. As a consequence, managers and owners often fail to develop strategies for coping with challenge or crisis the next time it occurs. The result is that many organizations are doomed to repeat the same or similar mistakes over and over again in a form of corporate *déjà vu*. To gain insights into how companies can better manage in hostile environments, we consider the solutions that have evolved in nature over billions of years. We trace nature's codes for adapting to hostile environments and explore the underlying characteristics of four genetic code types that can help business organizations to offset the negative implications of hostility through ensuring strategic fit. We link the four genetic codes most frequently found in nature with organizational capabilities. When correctly identified and leveraged, these capabilities can enable a company to focus attention and resource on how to manage successfully in hostile environments.

Key words

Hostile environment, genetic codes, organizational capabilities, strategic fit, coping strategies, strategic adaptation, biomimesis.

COMING TO TERMS WITH HOSTILE ENVIRONMENTS

Hostile environments – defined by natural scientists as a set of unstable external conditions – have become a clarion call for business. Consider the now defunct Lehman Brothers, not so long ago the fourth largest investment bank in the United States. It was considered one of Wall Street's biggest dealers in fixed-interest trading and was heavily invested in securities linked to the US sub-prime mortgage market (Schwartz & Bajaj, 2007). In 2008, the environment was turning hostile, with investments shunned as high risk. After the collapse of Bear Stearns in early 2008, it was no surprise that confidence in Lehman Brothers would be hit. In its June to August 2008 period, the bank made write downs of $700 million as it adjusted the value of its investments in residential mortgages and commercial property to the decline of the market value of such assets. However, this figure soared to $7.8 billion, which resulted in Lehman reporting the largest net loss in its history. The bank also admitted that it still had $54 billion of exposure to hard-to-value mortgage-backed securities. With its peers and the government reluctant to extend a helping hand, Lehman filed for bankruptcy protection in September 2008. We can see in this example that hostile environments can hit companies' hard. But could it have turned out differently for Lehman if they possessed an instinctive coping strategy for surviving the hostility of the US sub-prime mortgage meltdown? By "coping strategies" we mean the collective behavioral tools and techniques that individuals, animals and organizations routinely use to counteract or conquer adversity and turbulence, without actually correcting or removing the underlying causes. These are strategic in that they are about how to survive and are fundamental to the continued existence of the organism or organization.

Even without the threat or likelihood of corporate failure, the challenges of senior managers increase exponentially as they strive to lead their companies in business environments characterized by hostility (Duncan, Yeager & Rucks, 2011, McGrath & MacMillan, 2009). In a fast paced, interconnected world, high impact and often improbable political and economic events make hostility

the new default environment. In extreme situations, man-made or natural disasters can threaten the very survival of the organization in their given industries (Duncan, Yeager & Rucks, 2011). At the very least, hypercompetition (Ilinitch, D'Aveni & Lewin, 1996), characterized by intense inter-company rivalry, rapidly evolving markets and ease of entry into new markets, has become the norm in most industries. Sustainable competitive advantage is increasingly rare and is declining in duration. Consequently, most companies in given industries can at best aspire to temporary advantages (D'Aveni, 1994; Wiggins & Ruefli, 2005) and research indicates that the temporary (volatile) component of competitive advantage is increasing compared with the long-term sustainable component (D'Aveni, Dagnino & Smith, 2010; Thomas & D'Aveni, 2009).

The purpose of this paper is to look at how animals deal with their hostile environments in order to provide fresh insights into how business managers can approach their uncertain environments. In these circumstances, how can companies develop the organizational survival instincts needed to ensure strategic fit in hostile environments? We understand strategic fit to mean the appropriateness of a company's resource-base for their given industry and strategy in terms of its alignment with the environmental or organizational threats and opportunities facing the business (Hofer & Schendel, 1978; Zajac, Kraatz and Bresser, 2000). Lessons from nature offer insights into the limits of and potential for business management survival strategies (Penrose, 1953; Gavetti, Levinthal & Rivkin, 2005). Animals can thrive in environments that are much more deadly than the marketplaces that businesses operate in. By looking at how animal species deal with hostile environments we can gain fresh insights into the capabilities by which companies coded for specific industries can help adapt to external hostility (Clippinger, 1999; Plotkin, 1994; Zimmer, 2007). Managers can learn from animals that have evolved instincts of coping in hostile environments over billions of years (Benyus, 1997; Winter, 2004). In other words, managers need to learn which genes, or capabilities, they need to switch on and which to switch off. We therefore advocate a bionic analogy between animals and industries to suggest alternative capabilities to achieve or reestablish

strategic fit. Managers can consequently make choices about how they can better equip their companies for business survival.

Nelson & Winter (1982) view organizational capabilities as the ability of companies to use routines and resources in changing environments. More precisely, it is the bundling of resources that builds capabilities (Sirmon, Hitt & Ireland, 2007). The empirical research on the development and deployment of organizational capabilities concentrates mainly on specific processes and routines such as pricing (Dutta, Zbaracki & Bergen, 2003) and marketing (Morgan, Zou, Vorhies & Katsikeas, 2003). Although strategic management researchers use various constructs to define capabilities, there is consensus that a capability is a distinctive and superior way of allocating, coordinating, and deploying resources (Schreyogg & Kliesch-Eberl, 2007). Whilst capabilities are company specific, they share a basic common structure (Teece, 2007). The evolution of capabilities (Helfat & Peteraf, 2003; Stinchcombe, 1965), similar to an innovation process that is based on variation, selection and retention, is triggered by the need to adapt them to achieve fit, even in hostile environments. Looking at capabilities that have evolved in nature in response to hostile environments allows us to explore the lessons that business enterprises may learn. We then translate these lessons into concepts that can assist managers in choosing strategies and developing capabilities that facilitate fit.

LEVERAGING BIOMIMESIS IN MANAGEMENT

Velcro in design, passive cooling in architecture, water repellent surfaces (lotus effect), or friction reducing sharkskin swimsuits are all among the better known commercial applications based on insights derived from nature. The systematic approach to explore and use nature's solutions is called *biomimesis* - derived from the Greek words for life (bio) and imitation (mimesis). In each of the above cases, through observation and analysis of how specific problems are solved in nature, an analogy has helped develop a high-value mechanism, property or process based on a model in nature.

Developing solutions that have functionalities similar to those found in nature, yet with a commercial or social utility, lies at the heart of the biomimetic method (or biomimicry). Already widely applied in design, engineering and the sciences to exploit nature's successful ideas (Bar-Cohen, 2006; Benyus, 1997; Vincent, 1998), we employ the biomimetic method in this paper to determine how animal survival instincts and practices can enable a more innovative and effective approach to the strategies and underlying capabilities of organizations striving to withstand hostile environments.

Analyzing basic resemblances as shown in Table 1, we explore the fit between the survival strategies of animals with their hostile environments using three metrics familiar to managers (Gadagkar, 1997).

Insert Table 1 about here

Principally the metrics in Table 1 relate to four interrelated issues. Firstly, the hostile environment may require organisms and organizations to focus on cost efficiency and effectiveness to meet their objectives. Second, focusing on cost efficiency is essential for managers in modern organizations that face less favorable market conditions. Similarly in the natural world, when the context turns hostile animals need to economize on their usage of energy to survive. Thirdly, increasing the number of customers, their satisfaction and their amount of business is imperative for positive cash flow and organic growth – key metrics for managers. In the same way, for subsistence, growth and reproduction, animals need to locate and catch calories to survive. Finally, similar to organizations` objectives, animals seek to avoid disruptions and safeguard continuity. Business disruptions threaten performance in the short, mid and the long term. Animals need to avoid dangers - a prey needs to avoid a predator - and just like in the business world, animals and managers are often blind to the high impact, hostile events. Such analogies have their hazards, but here they help us to conceptualize

and illustrate alternative strategies for managers dealing with external hostility (Bonabeau, Dorigo & Heraulaz, 1999; Gavetti & Rivkin, 2005).

We sought to understand whether the survival capabilities and resultant strategies that have evolved in animals also resonate with managers who are struggling with hostile environments. Our research had four phases. The first phase included clustering various ways in which animals ensure survival in hostile environments and collating these survival strategies from the animal kingdom. Drawing on biomimicry, the second phase of our research led us to the identification of four basic coping capabilities and survival strategies that have evolved in animals and that can be successfully deployed by managers. In the third phase, to gain a better understanding of the challenges managers face in managing in their environment, we pretested the ideas with small groups of participants in strategic management executive programs at Rotterdam School of Management and in the Master of Science programs at EMLYON Business School and Grenoble School of Management. When we discussed our ideas with participants, they concurred with these survival strategies. In the fourth phase we discussed the emergent strategies with groups of experienced managers registered on Cranfield School of Management's Executive MBA program in 2009-10 and Imperial College London's Full-Time and Executive MBA programs in 2010-11 who also concurred with the survival ideas. Our research and subsequent individual discussions with a sample of delegates enabled us to discern how they managed their businesses in hostile environments and which of our four coping strategies best illustrates their approach to cope with and survive hostile environments.

ORGANIZATIONS CODED FOR INDUSTRIES

Animal survival instincts are largely encoded in their genes and these genes are active or switched on, functioning as capabilities in the way we previously discussed this term. They allow the innovative biological infrastructure and storage areas of learning to develop and accumulate through

evolutionary processes. As a result, bears hibernate when food is scarce and seagulls flee from threat of danger. The implications are that innate survival strategies offer highly efficient reflexes to counteract hostile environments that a species frequently encounters. Other elements of animal behavioral routines are clearly learned through experience - real or simulated (playing). Lion cubs first play how to fight and learn how to hunt in packs before adulthood.

However, greater variability in how hostile environments differ may expose limits to one or the other strategy (Mintzberg 1991). Consider a poisonous animal encountering a new predator that is immune to its venom. Similarly, consider the poison pills that can help management avoid unsolicited takeovers of their company. Then suddenly regulatory change renders these strategic responses illegal. In other words, animals are largely locked into their own particular species` survival strategy, just as companies can remain locked into their industries. Especially related to such enterprises, highly unlikely events with devastating consequences have become known as black swans (Taleb, 2010). Increasing the odds of survival is possible if a species can manage more than one survival strategy and the transition between strategies. In nature, also this adaptability is largely encoded. For instance, bears can both fight and hibernate when appropriate. Organizations need to develop similar combinations of operational capabilities (Flynn, Wu & Melnyk, 2010) that ensure the exploitation of expertise in industries, but they also need to ensure strategic or dynamic capabilities that enable an organization to renew and adapt to increasingly hostile environments.

While animals are preprogrammed by their genetic code, which defines their species, organizations are preprogrammed by existing industries and can adapt to changing circumstances, often through learning from their own or others experiences (Helfat & Peteraf, 2003; March, 1991; Senge, 1990; Stinchcombe, 1965). Organizations develop highly specialized operational capabilities to exploit existing opportunities (March, 1991) and they seek to develop dynamic capabilities enabling them to modify existing capabilities (Helfat, Finkelstein, Mitchell, Peteraf, Singh, Teece & Winter, 2007). The specialization or fit of animals in specific environments or niches helps them to

eschew rivalry and ensures survival. Similar to specific organizational forms that align with specific industries, animals' adaptation to their environments can enhance fitness. This relative degree of specialization (genetic and behavioral) makes these survival strategies highly effective in environments that are hostile in specific and stable ways.

FOUR CAPABILITIES-BASED PRACTICES FOR ENSURING STRATEGIC FIT

We can see that the majority of industries have predetermined codified capabilities. It follows that companies are coded to succeed in their industries, similar to animals for specific niches. However, companies are also coded for the founders' values and goals (Stinchcombe 1965) in the way that phenotypes build on genotypes. We believe the phenotypes can change quickly, while industries take longer to evolve. In Table 2, we attempt to capture the key industries that we explored to see if these industries developed flight, fight, search or sleep capabilities. For instance, aerospace manufacturers are founded by military personnel or entrepreneurs, auto manufacturers are founded by engineers or marketing experts and private equity companies are founded by bankers, scientists and politicians. The specific founders and their values codify the way companies behave and may alter the industry specific codes, which has implications for capabilities developed to cope with hostile environments. However, the key implication is that companies could perhaps develop other complimentary coping capabilities, an important point that the masters' students and executives strongly supported in our discussions. The following section explores in more detail the four strategies and related capabilities for creating strategic fit with a specific hostile environment.

Insert Table 2 about here

Practice 1: Build a Fighting Capability – Attack an Obvious Source of Hostility

Putting up a fight is the strategy of choice for well-resourced, aggressive companies in specifically hostile environments that threaten to erode their competitive advantages. Fighting requires readiness. Lions illustrate the distinct survival instincts to master the harsh hostility of their environments. When faced with specific threats from other dominant animals, they become alert and are able to attack swiftly and with forceful strikes using multiple adaptations. Lions are generally quick with great vision and can be vicious if challenged for resources or territory. In the merciless heat of the savannah, these powerful beasts clash with cheetahs and hyenas for the terrain and prey that guarantees survival. These conflicts are direct, involve tremendous force and reserves of resource and are, at times, merciless. Lions are prepared for the moment of truth, when they need to ensure survival and they will expend all necessary energy and effort to avoid defeat. Typically organizations that follow lion strategies take a proactive role in going after new customers and may adopt direct and forceful approaches in doing so. These companies confront and tackle competitors rapidly and with significant resource deployment. This may result in price war or an advertising blitz. These fighting strategies are pursued by proactive companies that want to face down competition and control their hostile environment instead of having it control them.

To see a lion strategy applied to organizations, we have only to look at Google's attacks on Microsoft (Vascellaro & Smith, 2009). Having bided their time and built up market strength and brand equity, Google then launched a full frontal assault on the once dominant software giant, challenging Microsoft for existing markets in word processing and spreadsheet applications and trumping them in new markets such as cloud computing. Software installed on personal computers is where Microsoft makes its living but Google see the prospect of 90 percent of computing tasks migrating to the Web-based cloud. The two adversaries are also fighting it out in promising new

market spaces as varied as Web maps, online video and cell phone software (Lohr, 2009). Like the lion, Google has evolved so that it can fight any predator and catch any prey with their strength of innovation and market perseverance.

Practice 2: Embracing Flight Capabilities – Move Quickly Away From Hostile Environments

Seagulls are astoundingly agile birds. They are capable of thriving in many different environments and can move rapidly to avoid specific threats to their survival. Being able to fly obviously helps them to escape from danger but their agility also derives from their seeming ability to eat just about anything. A seagull's robust digestive system has evolved to enable it to cope with a wide variety of food. Companies pursuing a seagull strategy have the agility to move rapidly to avoid threats, coupled with a capability to survive and thrive in differing environments. Seagull companies can combine agility and adaptability to cope with specific hostility. They can swiftly escape from specific threats and relocate and thrive somewhere less hostile. But in order to do this, their basic approach to value creation must be highly tolerant to changes in the business environment.

Companies that are able to shift the location of their facilities from one country to another to take advantage of lower wage costs or even change product-market combinations are exhibiting seagull capabilities. In order to do this the core processes of value creation must be robust and not overly dependent on specific contexts or locally available skills. Typically these companies have highly developed systems that do not require specific types of scarce labor or other inputs. Their know-how has been invested in the development of these robust assets and processes, which can be put into operation by employees who do not need to have company-specific know-how. The valuable assets of the company are its systems, processes, patents, brand names and so on, which can be relocated or adapted. These assets are either physically mobile or are capable of rapidly flexing and adapting to produce different products or services. So for example, where such a company faces

increasing labor costs this adaptability can be packaged up and physically transplanted to a more attractive labor market context.

Similarly, like seagulls, some companies are able to swiftly exit declining markets and rapidly exploit emerging markets. They can sense a threat ahead of rival companies, and their asset configuration enables them to rapidly change what they produce or the services they offer. Some retailers seem to be more agile than others, being able to observe when product lines are likely to face declining demand, and to be able to switch to new lines faster than rivals.

An example of a successful seagull enterprise is Phoenix. This financial services company serves the investment needs of high net worth individuals and is currently head quartered in Dublin, Ireland. However, it is a subsidiary of the Italian bank Unicredito. Why Dublin? The business was able to benefit from tax incentives and regulatory advantages on offer in Dublin. Should these disappear, Phoenix could conceivably relocate elsewhere, swiftly and without considerable costs. Given that its sales network is distributed across Europe, and assuming they can recruit local talent, these activities could be supported just as effectively from, say, Bratislava or Warsaw.

Practice 3: Developing Search Capabilities – Continuously Looking for Opportunities and Threats

Animals with search capabilities typically use their stamina to survive in hostile environments. Sharks are creatures that have been around for millions of years. The shark epitomizes such endurance and serves here as an illustration of organizational search capability. Knowing instinctively how to bear prolonged hardship and survive, they have staying power and know instinctively when and how to surge to reclaim territory. They are the most efficient predator in their domains and protect their hunting ground through vigilance and persistence. Organizational endurance is dependent on an ability to search for and find resources and sources of value –

customers or acquisitions – even in the most hostile of environments and often at long distances. Most of all, search strategy is associated with a killer instinct that works to locate and secure the prey, regardless of environmental distractions or obstacles, and serves to ward off competitors through deploying superior strength and force.

To see shark strategy in action we can look at The Coca-Cola Company (hereafter Coca-Cola) after 2004. The sudden death of CEO Roberto Goizueta in 1997 led to a period of strategic drift for Coca-Cola, with PepsiCo eclipsing its once dominant rival, particularly in the U.S. market. The Coca-Cola shark's dorsal and tail fins had been damaged, causing the corporate animal to lose stability and veer off course. The new appointed CEO, Neville Isdell, swiftly repaired the damage, returning Coca-Cola to good health through a diversification strategy intended to establish the corporation as the world's dominant competitor in a broad range of beverages. His vision was simple: to firmly establish Coca-Cola as a total, non-alcoholic beverage company, seizing opportunities to respond to consumer's beverage needs at every stage in their day, every day, everywhere. Today, after showing persistence and stamina, the corporation has recaptured territory lost to an assortment of smaller companies and especially to its archrival, PepsiCo. It has more than 3,000 different beverage products and 13 brands with annual revenues in excess of $35 billion. It is the global number one in sparkling drinks, fruit juices and ready to drink coffee and teas; number two in sports and energy drinks and number three in packaged water. In addition to successful acquisitions and alliances such as Glacéau in the US, Aquavision in Russia and Innocent in the UK, Coca-Cola invested in-house, resulting in innovative products such as the highly successful Coca-Cola Zero. These twin organic and inorganic growth strategies enabled the company to respond to changing tastes and demands, particularly in established markets, for more healthy and 'wellness'-oriented products. After 2004, Coca-Cola also leveraged internationally disseminated competencies in branding, supply, distribution and sales, cemented a decade earlier, to push Coca-Cola ahead of PepsiCo in the global battle for sales and acquisitions. In so doing, Coca-Cola reasserted the

corporation's focus, strength and dominance in established markets and rendered it more swift and agile in vast emerging markets such as Brazil, China, India and Russia.

Both sharks and lions are formidable predators. The key difference between them is the lion attacks specific rivals and threats within its domain or hunting grounds, whereas the shark roams far and wide in its search for prey, enabling it to offset general threats that may affect less mobile or agile animals. Overly driven and too finely tuned, Sharks also happen to swallow metal cans and car tires. This can happen to a company too. A business cannot prepare for a hostile environment by becoming a machine that indiscriminately seeks too many customers. It must have the structure and resources in place to search and exploit the right opportunities that ensure strategic market fit.

Practice 4: Embracing Hibernation Capabilities – Displaying a Capacity to Conserve Energy

When cold weather turns rain into snow and ice, food is harder to find and, at some point, seems to disappear entirely. Consequently, animals such as bears prepare to spend time in their winter quarters, with significantly reduced energy and activity levels. In doing so, they spend the critical months of general weather hostility more or less asleep in a safe domicile, waiting for spring. Evolution has produced innovations such as hibernation as a response to seasonal hostility.

Do companies choose to radically alter their behavior and their organizational metabolism when the general environment turns hostile? The answer is a resounding yes. We have witnessed the dramatic changes that periodically alter organizational processes in fast moving consumer goods (FMCG) companies, automobile manufacturing, tourism, fashion and farming. During the high season, enterprises in these sectors exploit to the maximum all available resources, knowing that seasonality will cause a slump in demand for the remainder of the year.

In agriculture, part time employees` contracts end when the harvest is over – when the farm managers and owners reduce activity levels dramatically. In periods of relative rest, organizations can

focus on repair, maintenance, improvement and preparation. Similar to craftsmen who fix and improve the tools that broke in the heat of the high season, companies in sectors ranging from building and construction to hotel services slow down periodically. Seasonality in FMCG businesses allows companies to prepare for the next season by developing new products and manufacturing during the off-season to build stock, while temporarily reining in marketing and sales spend.

The most recent, dramatic frosting of the world economy, following the US mortgage and banking crisis, showcases how companies can outcompete their rivals with sleep and size strategies. After the Lehman shock, banks ceased to give out loans, which was for many a core activity. That is to say, they radically reduced their activity levels. The automobile industry was one of the hardest hit by this shortage of credit for consumers, historically high oil prices, and concerns about global warming - three crises frozen together in one long winter. With Chrysler and GM severely hit, consider how other automobile companies executed their sleep and size strategy even in these most severe of times.

Honda is a case in point. Between September and December 2008, Honda unexpectedly accumulated a 102-day stock of Honda and Acura vehicles, up from a 30-day supply on September 1. Honda quickly moved into a hibernation strategy and lowered its activity level in several ways. Honda stopped production on December 22 and 23, and did so for the good part of a week in the following month. Originally Honda had intended to manufacture 1,468,000 vehicles up to March 31 2009; the adjusted production goal for the financial year was still 1,293,000 cars and light trucks. Adapting to new conditions, Honda put its new models and concepts such as the latest Honda NSX, CR-Z hybrid, and the S 2000 on hold and pulled out of Formula 1, citing the high costs involved as irreconcilable with the harsh conditions. Aiming at savings of billions of dollars for new product development, Honda consolidated the originally separately developed local and global versions of the Honda Acura into one version. Honda focused new product development efforts on small city hybrids including super minis. Honda cut down the number of cars produced, especially in those countries

where the crisis hit hardest. In North America, the manufacturer cut production for the first quarter of 2009, which came in addition to the 56,000 cars that had already been canceled.

Note that most of Honda's decisions shrank the need for resources, reduced the activity level and put units, parts or projects in hibernation – without ending them or severing relationships core to the business. Compare a reduction of workforce with the reduction of work hours, a move typical of hibernation strategies. Terminating work contracts is permanent, difficult and costly to reverse. A reduction of working hours amends contracts in ways that can be changed back quickly. In other words, hibernation can allow for high flexibility because low levels of activity still include monitoring the environment and the triggering of adequate metabolic and behavioral reaction.

If organizations cannot forecast and assess the duration of a hostile environment, they may fail to sustain low activity levels long enough to see conditions improve. When the environment becomes highly volatile and unpredictable, badly executed hibernation strategies can set companies up for disaster. Waking up in mid winter because the reserves are exhausted exposes the animal to the risk of starvation. Consider cases where companies had depleted their financial resources in the middle of the recent credit crunch. Management theorists refer to organizational reserves as *slack*, i.e. excess resources that add to overall costs but that can provide a fallback in hard times and that can enable the company to adapt to changing environments. Building slack is an optimization challenge that necessitates predicting environmental change with (relative) certainty. However, when low visibility and high environmental hostility make meaningful estimates impossible, companies should select a different strategy. Hibernation is a risky strategy, if seasonality cannot be predicted. But some can get it right. Consider Japan Steel Works (JSW), the only company in the world that produces machine pressure vessels which house the coolant and reactor core of nuclear facilities. After a protracted time period during which nuclear energy was out of favor with politicians and the public, it returned to the fore and JSW enjoyed the benefits of 'spring' in its particular markets. Its order books filled for years to come. However, this nuclear renaissance experienced a dramatic turn

of fortune in early 2011. The Japanese earthquake of March 2011 and resultant devastating tsunami and nuclear meltdown in the Fukushima nuclear facilities, once again called into question the safety and viability of nuclear power around the world. The crisis triggered political debate in other countries with sizeable nuclear energy capability, such as Germany, Italy and the U.S. The widespread reconsideration of nuclear power appears to foreshadow another winter for the nuclear industry at a moment when companies had just hoped for an invigorating upturn.

In summary, as seen from the four practices above, our framework of practices to create strategic fit with the environment (Table 3) includes options that cover a wide range of possible actions as observed in nature: flight, flight, search and sleep. These can be seen as interchangeable and complementary, depending on the nature of the hostility. Realizing one or combinations of these options can involve challenging strategic change, as they are likely to be new to the company. Introducing such innovative practices often translates into alterations in a company's structures, systems, routines and culture. They can be assessed by static outcome measures such as energy usage (costs in companies), calorie consumption (customer attainment in companies), and other 'strategy' measures such as speed, flexibility and vision, as seen in Table 3.

Insert Table 3 about here

KEY LESSONS – BEGIN THE JOURNEY

Animals, predator and prey alike, seek to safeguard continuity of existence and survival of the individual and its species by establishing the balance between calorie intake and energy usage over time. In discussions with executives throughout our research process it emerged that combinations of the four practices are possible but some combinations are more promising than others. Birds are

skilled at searching and scanning the surface for prey and predators alike. Searching capabilities allows companies to spot opportunities and threats (Teece, 2007). The main challenge related to searching lies in developing effective routines without incurring high costs. Predators cannot waste their energy on searching only – they still have a catch to make. Likewise, prey cannot exhaust their resources by analyzing their environment in detail until it is too late – timely escape routines need to be triggered to ensure survival.

We believe that stamina, alertness and rapid action enable combinations, as they support fight, flight, search and sleep. Some industries are predetermined to have stamina, having regularly experienced hostile environments, as emerged in our conversations with corporate executives. For instance, automobile manufacturing, tourism and air transport. Similarly, alertness helps enable companies to activate the most appropriate capability at the right moment, such as shifting from search to fight. The time it takes to shift should not leave organizations defenseless. Hence the ability to rapidly take action is as fundamental as stamina and alertness. However, in addition managers need to develop and switch on the four specific capabilities of fight, flight, search and sleep, so as to manage in hostile environments. That said, combining these four strategies is not trivial. The agility required to swiftly flee does not naturally convert into sufficient physical strength to take a stand and fight. The best runners rarely make good prize fighters. Likewise, hibernating is not an action pattern naturally conducive to search efforts. Sleep comes with the risk of missing out on change dynamics and resultant opportunities. Managers need to understand that organizations are partially predetermined by a genetic code or a set of routines and procedures, but they can still develop those behavioral patterns through changing their culture. Being specialized through disposition, organizations need to be aware of the consequences of a too narrow repertoire of survival strategies to create fit.

As noted above, managers must follow a process to deal with their hostile environment in order to ensure sustainability. They can begin the journey by asking their management teams to consider the following questions in the process:

1. What are the behavioral patterns and instincts that exist in our business?
2. Reflecting on the most important hostile episodes of the last few years, how did we react?
3. Can we conduct an honest cost-benefit analysis of these behavioral patterns?
4. Will environmental hostility require more than one survival strategy in the future?
5. How likely will success in the future be determined by reacting in the same way as in the past?
6. Alternatively, how likely is it that circumstances will demand alternative behavioral patterns?

Successful companies often stumble when they face hostile environments. They falter, in part, because they assume they can look into the future and develop a long-term strategy that will confer a sustainable competitive advantage (Govindarajan & Trimble, 2005). Highly improbable events of dramatic consequences (Taleb, 2010) such as the previously mentioned credit crunch brought about the demise of Lehman Brothers and can threaten industries such as investment banking, where even Goldman Sachs had to abandon its status as an investment bank. Hostile environments can erode competitive advantage, wipe out profits and even destroy long established enterprises within industries. Witness the decline and failure of once unflappable companies such as Anglo-Irish Bank, AIG, ING, Merrill Lynch and Royal Bank of Scotland. The future will present business leaders with more hostile environments because of the many different variables in play. Changes in complex financial instruments, global viruses, terrorism, technological innovation, customers' evolving needs, government policy and regulation and changes in the capital markets interact with and overlap one another to create more and more unexpected outcomes with increasingly wide ranging consequences.

The animal kingdom, even with some hazards in analogies, can illustrate the results of the destruction of niches (resulting in the extinction of entire species) and loosing capabilities (resulting in becoming another animal's lunch). The animal kingdom also inspires solutions to reestablish or maintain strategic fit – strategies to cope with hostile environments. Many companies follow similar approaches to animals. Their coping strategies win them the trappings of success – size, cash, time, loyalty and position. While it may be difficult to make the necessary changes to develop a new animal instinct, companies are sometimes too slow to effectively adopt even the approaches closest to their nature or culture. Changing the behavioral routines of companies does not only require having the alertness to tackle this task but also the stamina and rapid action to succeed. Changing culture or developing a new capability is difficult, expensive and hard to justify with people who do not foresee several probable hostile environments nor have the courage to confront them.

We contend that future environmental hostility will require managers to be more versatile to create fit. If this occurs, the success rate and consistency of responses to a single kind of hostility will improve. Furthermore, business leaders can prepare for hard times (Day & Shoemaker, 2008). They can learn from the animal kingdom by observing how animals have, without conscious intent, evolved survival strategies. Seeking a better understanding of animal survival instincts can help business leaders consider their own organization's ability to adapt to and survive hostile environments.

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Table 1: Strategy Metrics for Comparative Analysis

Characteristics of Hostile Environments (Context)	**Business Strategy**	**Basic Resemblances**	**Animal Strategy**
Less resources available to operate	Reduce costs	Reduce input	Reduce energy usage
More efforts needed to operate	Increase customer attainment	Increase output	Increase calorie consumption
Objective	Avoid disruption	Safeguard continuity	Ensure survival

Table 2: Industries Coded with Specific Strategies

Country **(E.g. context)**	**Hostile Environment** **(E.g. stimuli)**	**Industry context** **(E.g. main influences)**	**Strategy**
U.S.	Regulation	Pharmaceutical (FDA)	Fight and Search
UK	Credit crunch	Auto manufacturer (rivals)	Fight and Search
Japan	Tsunami	Computer (macro factors)	Sleep and Fight
France	Hypercompetition	Cosmetics (new entrants)	Fight and Search
UK	Heavy snow	Agriculture (environment)	Sleep and Fight
Libya	Middle East War	Oil (governments)	Fight and Search
Japan	Nuclear leak	Fishing (disaster)	Sleep and Fight
Egypt	Political instability	Tourism (macro factors)	Sleep and Fight
U.S.	Credit crunch	Banking (financial regulation)	Fight and Search
Germany	Deregulation	Airlines (rivals)	Fight and Search
U.S.	Gulf War	Aerospace manufacturer (rivals)	Fight and Search
New Zealand	Earthquake	Airport authority (disaster)	Fight

Table 3: Practices for Strategic Fit

Strategy	Benefits (Outcome)	Drawbacks	Example (Combination of Strategies)
Fight	• Increase catch • Weakening of rivals	• High costs • Risks continuity	• Google have developed fighting capabilities using proactivity, speed and stamina to deal with Microsoft in the mobile devices industry. They are able to fight in any marketplace. • Compared with British Airways, Virgin Atlantic has more effectively developed vision, speed and stamina to catch and keep loyal business customers.
Flight	• Safeguard continuity • Low risk	• High costs	• Phoenix has developed flexibility, stamina and ability to survive in many environments by being able to move around countries. • Boeing has the ability to devolve elements of their manufacturing line to various parts of the world.
Search	• Safeguard continuity • Increase catch	• High costs	• Coca-Cola is able to consistently search for customers through its ability to identify customer signals and behaviors, even during times of war, recession and hostility. • Pfizer is able to develop new drugs through its ability to identify customer needs through its searching capabilities. The company is also able to reduce competitive impact by using its investment in search to enhance new drug development and customer attainment.
Sleep	• Safeguard continuity • Low costs	• Risks continuity • No catch	• Toyota is able to quickly shut down plants in hostile situations, as seen in the 2011 Japanese earthquake and tsunami disaster. • Honda is able to swiftly shut down production sites, as they did during the 2011 Japanese natural disaster and subsequent events at the Fukushima nuclear facility.