

Module 2 | Class One, Two and Four

Org Behavior



MOD2

Org Behavior

CLASS DAY ONE



Protect the brilliant people from the people they drive crazy.

- Malcolm Gladwell

Malcolm Gladwell Says The Best Managers...

'Harbor And Protect Obnoxious And Brilliant People'

Malcolm Gladwell is something of an apologist for obnoxiousness. As he writes in "David and Goliath," many of the most successful people in the world aren't too pleasant to be around.

He maintains that IKEA founder Ingvar Kamprad became a \$3.8 billion success story because he's disagreeable — he doesn't need validation from his peers.

Gladwell owes his own success to his disagreeableness.

"What I try to do — try to be — is unafraid of making a fool of myself," he said in an interview, emphasizing that losing his "fear of standing corrected" has been necessary to his growth as a writer.

All this should be instructive to managers, he recently told Quartz.

"I am constantly hearing about a person seen inside organizations as being disruptive, but is nonetheless highly valuable to the organization," he said.

And he thinks these prickly people need to be cared for — not only for the good of the organization, but, in some cases, for the good of humanity.

Gladwell provided the example of Dr. Emil J. Freireich, who waged an epic battle against childhood leukemia in the 1950s, a disease that had a 90% mortality rate with kids in his hospital.

They were dying gruesome, bloody deaths. White-uniformed nurses would go home covered in red.

Freireich was a "tempestuous, difficult, impossible man," Gladwell said.

As difficult as he was to work with, Freireich was indomitable in his search for a cure.

The doctor did all sorts of things against the "best practices" of his day to fight childhood leukemia, like conducting blood transfusions to raise platelet count or using four kinds of chemotherapy when one wasn't working.

"Some of the clinical associates — the junior doctors assisting on the ward — refused to take part," Gladwell wrote. "They thought Freireich was insane."

Amid all the death and doubt, Freireich pressed on. And he succeeded.

Gladwell writes in "David and Goliath":

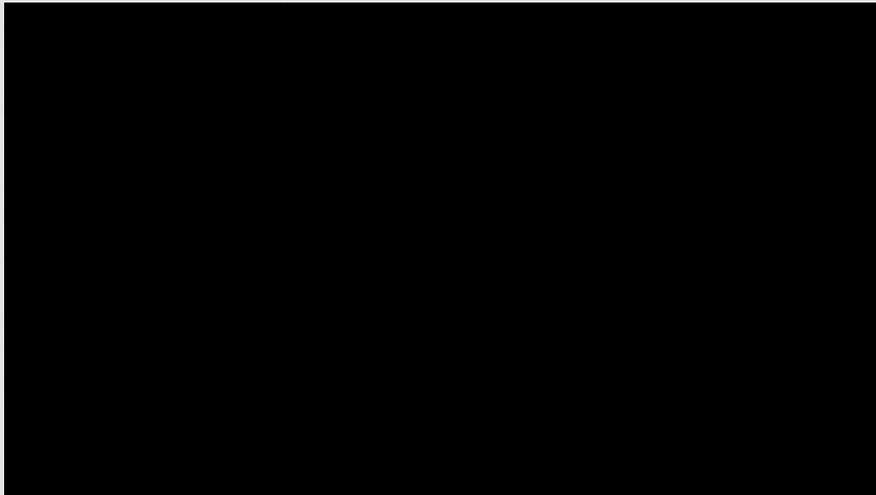
In 1965, Freireich and [his partner Emil] Frei published "Progress and Perspectives in the Chemotherapy of Acute Leukemia" in Advances in Chemotherapy, announcing that they had developed a successful treatment for childhood leukemia. Today, the cure rate for this form of cancer is more than 90 percent. The number of children whose lives have been saved by the efforts of Freireich and Frei and the researchers who followed in their footsteps is in the many, many thousands.

This was made possible, Gladwell says, because Freireich had a boss at the National Institutes of Health who made it possible to do his work fighting leukemia.

"He knew his job was to harbor and protect obnoxious and brilliant people," Gladwell said. "He woke up in the morning knowing it was his job to protect the brilliant people from the people they drive crazy."

Add that to the list of things great bosses do.

Movie 1.1 Carl Sagan Humans (3min)



The Sagan Series is an educational project working in the hopes of promoting scientific literacy in the general population.



Emotional Intelligence emerges as a much stronger predictor of who will be most successful, because it is how we handle ourselves in our relationships that determines how well we do once we are in a given job.

- Daniel Goleman

How Emotional Intelligence Became a Key Leadership Skill

by Andrea Ovans

Anyone trying to come up to speed on emotional intelligence would have a pretty easy time of it since the concept is remarkably recent, and its application to business newer still. The term was coined in 1990 in a research paper by two psychology professors, John D. Mayer of UNH and Peter Salovey of Yale. Some years later, Mayer defined it in HBR this way:

From a scientific (rather than a popular) standpoint, emotional intelligence is the ability to accurately perceive your own and others' emotions; to understand the signals that emotions send

about relationships; and to manage your own and others' emotions. It doesn't necessarily include the qualities (like optimism, initiative, and self-confidence) that some popular definitions ascribe to it.

It took almost a decade after the term was coined for Rutgers psychologist Daniel Goleman to establish the importance of emotional intelligence to business leadership. In 1998, in what has become one of HBR's most enduring articles, "What Makes a Leader," he states unequivocally:

The most effective leaders are all alike in one crucial way: they all have a high degree of what has come to be known as emotional intelligence. It's not that IQ and technical skills are irrelevant. They do matter, but... they are the entry-level requirements for executive positions. My research, along with other recent studies, clearly shows that emotional intelligence is the sine qua non of leadership. Without it, a person can have the best training in the world, an incisive, analytical mind, and an endless supply of smart ideas, but he still won't make a great leader.

The article then goes on to introduce five components of emotional intelligence that allow individuals to recognize, connect with, and learn from their own and other people's mental states:

1. Self-awareness
2. Self-regulation
3. Motivation (defined as "a passion for work that goes beyond money and status")
4. Empathy for others
5. Social skills, such as proficiency in managing relationships and building networks

An understanding of what exactly constitutes emotional intelligence is important not only because the capacity is so central to leadership but because people strong in some of its elements can be utterly lacking in others, sometimes to disastrous effect. You can see Salovey, now Yale's provost, making this point vividly in a talk he gave at a 2010 leadership conference in which he describes how a single picture (which we can't even see) illustrates the remarkable disparity in the emotional intelligence of President Clinton, who was so remarkable in his empathy and yet so devoid of self-control.

In subsequent work, Goleman focuses more deeply on these various elements of emotional intelligence. In 2001, with Case Western Reserve professor Richard

Boyatzis and U.Penn faculty member Annie McKee, he explored the contagious nature of emotions at work, and the link between leaders' emotional states and their companies' financial success in "Primal Leadership."

In 2008, in "Social Intelligence and the Biology of Leadership," Goleman and Boyatzis take a closer look at the mechanisms of social intelligence (the wellsprings of empathy and social skills). And most recently, in "The Focused Leader," Goleman applies advances in neuroscience research to explain how leaders can increase each element of emotional intelligence by understanding and improving the various ways they focus their attention, both expansively and narrowly.

It is perhaps an indication of how young this field is (or perhaps how fundamental Goleman's typology is to it) that pretty much the entire canon of thinking on the subject in HBR also focuses on one or another of these elements of emotional intelligence as Goleman laid them out.

In "Cultural Intelligence," for instance, Elaine Mosakowski of the University of Colorado, Boulder, and LBS professor Christopher Earley take an in-depth look at one important social skill, the ability to ad-

just to different contexts, offering a diagnostic to help you gauge your abilities and a six-step process for improving them.

In "Contextual Intelligence," HBS professor Tarun Khanna examines how leaders develop what Goleman calls "cognitive empathy," the aspect of social intelligence that "enables leaders to pick up implied norms and learn the unique mental models of a new culture."

In Emotional Agility, consultants Susan David and Christina Congleton, focus on one aspect of self-regulation, detailing a process for recognizing and rechanneling your negative emotions, an idea echoed in Kellogg school professor Leigh Thompson and U. Chicago behavioral science professor Tanya Menon's approach to coping with envy at work.

And in "Building the Emotional Intelligence of Groups," Steven Wolff of Marist College, and another CWR professor, Vanessa Urch Druskat, examine how emotional intelligence is manifested in and strengthens teams.

The year that Mayer and Salovey coined the term emotional intelligence was the same year functional magnetic resonance imaging (fMRI) was invented, making it possible for the first time to see what was hap-

pening in the brain while it was in action. Goleman's work is infused with these insights, and HBR has reported on the most surprising research in this area, particularly in the last five years:

- on the mechanisms of charisma,
- on what's happening at a physical level when you understand what another person is saying,
- on when emotional reasoning trumps IQ,
- (and conversely when anger poisons decision making);
- on when flattery works and when it doesn't,
- and on the merits of gossip in fostering social networks.

And just this month, HBR's editors reported on the strong link between empathetic leaders and financial performance. Collectively they form an impressive and growing body of evidence suggesting the integrated nature of our rational and emotional selves and the impossibility and inadvisability of separating the two at work.

Still, it is sign that the field is reaching a certain level of maturity that we are beginning to see some counterarguments.

Most notably, a Wharton professor, Adam Grant, who in his own research has reported a lack of correlation between scores on tests of emotional intelligence and business results. While Goleman and others contest his methods, Mayer himself pointed out in 2002 HBR article that "emotional intelligence isn't the only way to attain success as a leader. A brilliant strategist who can maximize profits may be able to hire and keep talented employees even if he or she doesn't have strong personal connections with them." But building those strong connections is still probably a safer bet than ignoring them.

"ONE OF THE BEST PREDICTORS OF ULTIMATE SUCCESS IN EITHER SALES OR NON-SALES SELLING ISN'T NATURAL TALENT OR EVEN INDUSTRY EXPERTISE, BUT HOW YOU EXPLAIN YOUR FAILURES AND REJECTIONS."

DANIEL H. PINK

© Lifestack Quotes

HOW TO CARE FOR EXTROVERTS

- 1 RESPECT** THEIR INDEPENDENCE
- 2 COMPLIMENT THEM** IN THE COMPANY OF OTHERS
- 3 ACCEPT AND ENCOURAGE** THEIR ENTHUSIASM
- 4 ALLOW THEM TO EXPLORE** AND TALK THINGS OUT
- 5 THOUGHTFULLY SURPRISE THEM**
- 6 UNDERSTAND** WHEN THEY ARE BUSY
- 7 LET THEM DIVE RIGHT IN**
- 8 OFFER THEM OPTIONS**
- 9 MAKE PHYSICAL AND VERBAL GESTURES OF AFFECTION**
- 10 LET THEM SHINE**

HOW TO CARE FOR INTROVERTS

- 1 RESPECT** THEIR NEED FOR PRIVACY
- 2 NEVER EMBARRASS THEM** IN PUBLIC
- 3 LET THEM OBSERVE** FIRST IN NEW SITUATIONS
- 4 GIVE THEM TIME TO THINK** DON'T DEMAND INSTANT ANSWERS
- 5 DON'T INTERRUPT THEM**
- 6 GIVE THEM ADVANCE NOTICE** OF EXPECTED CHANGES IN THEIR LIVES
- 7 GIVE THEM 15 MINUTE WARNINGS** TO FINISH WHATEVER THEY ARE DOING
- 8 REPRIMAND THEM PRIVATELY**
- 9 TEACH THEM NEW SKILLS PRIVATELY**
- 10 ENABLE THEM TO FIND ONE BEST FRIEND** WHO HAS SIMILAR INTERESTS & ABILITIES
- 11 DON'T PUSH THEM** TO MAKE LOTS OF FRIENDS
- 12 RESPECT THEIR INTROVERSION** DON'T TRY TO REMAKE THEM INTO EXTROVERTS

Movie 1.2 Stoicisim (5min)

THE BIG IDEAS

FROM THE SCHOOL OF LIFE

How the Stoics can help us tackle anxiety, fury and loss of perspective - and realise that very little is needed to make a happy life.

Decision Framework



A Leader's Framework for Decision Making

by David J. Snowden and Mary E. Boone

In January 1993, a gunman murdered seven people in a fast-food restaurant in Palatine, a suburb of Chicago. In his dual roles as an administrative executive and spokesperson for the police department, Deputy Chief Walter Gasior suddenly had to cope with several different situations at once. He had to deal with the grieving families and a frightened community, help direct the operations of an extremely busy police department, and take questions from the media, which inundated the town with reporters and film crews. “There would literally be four people coming at me with logistics and media issues all at once,” he

recalls. “And in the midst of all this, we still had a department that had to keep running on a routine basis.”

Though Gasior was ultimately successful in juggling multiple demands, not all leaders achieve the desired results when they face situations that require a variety of decisions and responses. All too often, managers rely on common leadership approaches that work well in one set of circumstances but fall short in others. Why do these approaches fail even when logic indicates they should prevail? The answer lies in a fundamental assumption of organizational theory and practice: that a certain level of predictability and order exists in the world.

This assumption, grounded in the Newtonian science that underlies scientific management, encourages simplifications that are useful in ordered circumstances. Circumstances change, however, and as they become more complex, the simplifications can fail. Good leadership is not a one-size-fits-all proposition.

We believe the time has come to broaden the traditional approach to leadership and decision making and form a new perspective based on complexity science. (For more on this, see the sidebar “Understand-

ing Complexity.”) Over the past ten years, we have applied the principles of that science to governments and a broad range of industries. Working with other contributors, we developed the Cynefin framework, which allows executives to see things from new viewpoints, assimilate complex concepts, and address real-world problems and opportunities. (Cynefin, pronounced ku-nev-in, is a Welsh word that signifies the multiple factors in our environment and our experience that influence us in ways we can never understand.)

Using this approach, leaders learn to define the framework with examples from their own organization’s history and scenarios of its possible future. This enhances communication and helps executives rapidly understand the context in which they are operating.

The U.S. Defense Advanced Research Projects Agency has applied the framework to counterterrorism, and it is currently a key component of Singapore’s Risk Assessment and Horizon Scanning program. Over time, the framework has evolved through hundreds of applications, from helping a pharmaceutical company develop a new product strategy to assisting a Canadian provincial government in its efforts to engage employees in policy making.

The framework sorts the issues facing leaders into five contexts defined by the nature of the relationship between cause and effect. Four of these—simple, complicated, complex, and chaotic—require leaders to diagnose situations and to act in contextually appropriate ways. The fifth—disorder—applies when it is unclear which of the other four contexts is predominant.

Using the Cynefin framework can help executives sense which context they are in so that they can not only make better decisions but also avoid the problems that arise when their preferred management style causes them to make mistakes. In this article, we focus on the first four contexts, offering examples and suggestions about how to lead and make appropriate decisions in each of them.

Since the complex domain is much more prevalent in the business world than most leaders realize—and requires different, often counterintuitive, responses—we concentrate particularly on that context.

Leaders who understand that the world is often irrational and unpredictable will find the Cynefin framework particularly useful.

Simple Contexts: The Domain of Best Practice

Simple contexts are characterized by stability and clear cause-and-effect relationships that are easily discernible by everyone. Often, the right answer is self-evident and undisputed. In this realm of “known knowns,” decisions are unquestioned because all parties share an understanding. Areas that are little subject to change, such as problems with order processing and fulfillment, usually belong here.

Simple contexts, properly assessed, require straightforward management and monitoring. Here, leaders sense, categorize, and respond. That is, they assess the facts of the situation, categorize them, and then base their response on established practice.

Heavily process-oriented situations, such as loan payment processing, are often simple contexts. If something goes awry, an employee can usually identify the problem (when, say, a borrower pays less than is required), categorize it (review the loan documents to see how partial payments must be processed), and respond appropriately (either not accept the payment or apply the funds according to the terms of the note).

Since both managers and employees have access to the information necessary for dealing with the situation in this domain, a command-and-control style for setting parameters works best. Directives are straightforward, decisions can be easily delegated, and functions are automated. Adhering to best practices or process reengineering makes sense. Exhaustive communication among managers and employees is not usually required because disagreement about what needs to be done is rare.

Nevertheless, problems can arise in simple contexts:

First, issues may be incorrectly classified within this domain because they have been oversimplified. Leaders who constantly ask for condensed information, regardless of the complexity of the situation, particularly run this risk.

Second, leaders are susceptible to entrained thinking, a conditioned response that occurs when people are blinded to new ways of thinking by the perspectives they acquired through past experience, training, and success.

Third, when things appear to be going smoothly, leaders often become complacent. If the context changes at that point, a

leader is likely to miss what is happening and react too late. In the exhibit “The Cynefin Framework,” the simple domain lies adjacent to the chaotic—and for good reason. The most frequent collapses into chaos occur because success has bred complacency. This shift can bring about catastrophic failure—think of the many previously dominant technologies that were suddenly disrupted by more dynamic alternatives.

Leaders need to avoid micromanaging and stay connected to what is happening in order to spot a change in context. By and large, line workers in a simple situation are more than capable of independently handling any issues that may arise. Indeed, those with years of experience also have deep insight into how the work should be done. Leaders should create a communication channel—an anonymous one, if necessary—that allows dissenters to provide early warnings about complacency.

Finally, it’s important to remember that best practice is, by definition, past practice. Using best practices is common, and often appropriate, in simple contexts. Difficulties arise, however, if staff members are discouraged from bucking the process even when it’s not working anymore. Since hindsight no longer leads to foresight after

a shift in context, a corresponding change in management style may be called for.

Complicated Contexts: The Domain of Experts

Complicated contexts, unlike simple ones, may contain multiple right answers, and though there is a clear relationship between cause and effect, not everyone can see it. This is the realm of “known unknowns.” While leaders in a simple context must sense, categorize, and respond to a situation, those in a complicated context must sense, analyze, and respond.

This approach is not easy and often requires expertise: A motorist may know that something is wrong with his car because the engine is knocking, but he has to take it to a mechanic to diagnose the problem.

Because the complicated context calls for investigating several options—many of which may be excellent—good practice, as opposed to best practice, is more appropriate. For example, the customary approach to engineering a new cell phone might emphasize feature A over feature B, but an alternative plan—emphasizing feature C—might be equally valuable.

Another example is the search for oil or mineral deposits. The effort usually requires a team of experts, more than one place will potentially produce results, and the location of the right spots for drilling or mining involves complicated analysis and understanding of consequences at multiple levels. more

Entrained thinking is a danger in complicated contexts, too, but it is the experts (rather than the leaders) who are prone to it, and they tend to dominate the domain. When this problem occurs, innovative suggestions by non-experts may be overlooked or dismissed, resulting in lost opportunities.

The experts have, after all, invested in building their knowledge, and they are unlikely to tolerate controversial ideas. If the context has shifted, however, the leader may need access to those maverick concepts.

To get around this issue, a leader must listen to the experts while simultaneously welcoming novel thoughts and solutions from others. Executives at one shoe manufacturer did this by opening up the brainstorming process for new shoe styles to the entire company. As a result, a security guard

submitted a design for a shoe that became one of their best sellers.

Another potential obstacle is “analysis paralysis,” where a group of experts hits a stalemate, unable to agree on any answers because of each individual’s entrained thinking—or ego.

Working in unfamiliar environments can help leaders and experts approach decision making more creatively. For instance, we put retail marketing professionals in several military research environments for two weeks.

The settings were unfamiliar and challenging, but they shared a primary similarity with the retail environment: In both cases, the marketers had to work with large volumes of data from which it was critical to identify small trends or weak signals. They discovered that there was little difference between, say, handling outgoing disaffected customers and anticipating incoming ballistic missiles.

The exercise helped the marketing group learn how to detect a potential loss of loyalty and take action before a valued customer switched to a competitor. By improving their strategy, the marketers were able to retain far more high-volume business.

Games, too, can encourage novel thinking. We created a game played on a fictional planet that was based on the culture of a real client organization. When the executives “landed” on the alien planet, they were asked to address problems and opportunities facing the inhabitants. The issues they encountered were disguised but designed to mirror real situations, many of which were controversial or sensitive.

Because the environment seemed so foreign and remote, however, the players found it much easier to come up with fresh ideas than they otherwise might have done.

Playing a metaphorical game increases managers’ willingness to experiment, allows them to resolve issues or problems more easily and creatively, and broadens the range of options in their decision-making processes. The goal of such games is to get as many perspectives as possible to promote unfettered analysis.

Reaching decisions in the complicated domain can often take a lot of time, and there is always a trade-off between finding the right answer and simply making a decision. When the right answer is elusive, however, and you must base your decision

on incomplete data, your situation is probably complex rather than complicated.

Complex Contexts: The Domain of Emergence

In a complicated context, at least one right answer exists. In a complex context, however, right answers can't be ferreted out. It's like the difference between, say, a Ferrari and the Brazilian rainforest.

Ferraris are complicated machines, but an expert mechanic can take one apart and reassemble it without changing a thing. The car is static, and the whole is the sum of its parts.

The rainforest, on the other hand, is in constant flux—a species becomes extinct, weather patterns change, an agricultural project reroutes a water source—and the whole is far more than the sum of its parts.

This is the realm of “unknown unknowns,” and it is the domain to which much of contemporary business has shifted.

Most situations and decisions in organizations are complex because some major change—a bad quarter, a shift in management, a merger or acquisition—introduces unpredictability and flux. In this domain,

we can understand why things happen only in retrospect.

Instructive patterns, however, can emerge if the leader conducts experiments that are safe to fail. That is why, instead of attempting to impose a course of action, leaders must patiently allow the path forward to reveal itself. They need to probe first, then sense, and then respond.

There is a scene in the film *Apollo 13* when the astronauts encounter a crisis (“Houston, we have a problem”) that moves the situation into a complex domain. A group of experts is put in a room with a mish-mash of materials—bits of plastic and odds and ends that mirror the resources available to the astronauts in flight.

Leaders tell the team: This is what you have; find a solution or the astronauts will die. None of those experts knew a priori what would work. Instead, they had to let a solution emerge from the materials at hand. And they succeeded. (Conditions of scarcity often produce more creative results than conditions of abundance.)

Another example comes from YouTube. The founders could not possibly have predicted all the applications for streaming video technology that now exist. Once people started using YouTube creatively, how-

ever, the company could support and augment the emerging patterns of use. YouTube has become a popular platform for expressing political views, for example. The company built on this pattern by sponsoring a debate for presidential hopefuls with video feeds from the site.

As in the other contexts, leaders face several challenges in the complex domain. Of primary concern is the temptation to fall back into traditional command-and-control management styles—to demand fail-safe business plans with defined outcomes.

Leaders who don't recognize that a complex domain requires a more experimental mode of management may become impatient when they don't seem to be achieving the results they were aiming for. They may also find it difficult to tolerate failure, which is an essential aspect of experimental understanding.

If they try to over-control the organization, they will preempt the opportunity for informative patterns to emerge. Leaders who try to impose order in a complex context will fail, but those who set the stage, step back a bit, allow patterns to emerge, and determine which ones are desirable will succeed.

They will discern many opportunities for innovation, creativity, and new business models.

Chaotic Contexts: The Domain of Rapid Response

In a chaotic context, searching for right answers would be pointless: The relationships between cause and effect are impossible to determine because they shift constantly and no manageable patterns exist—only turbulence. This is the realm of unknowables. The events of September 11, 2001, fall into this category.

In the chaotic domain, a leader's immediate job is not to discover patterns but to stanch the bleeding. A leader must first act to establish order, then sense where stability is present and from where it is absent, and then respond by working to transform the situation from chaos to complexity, where the identification of emerging patterns can both help prevent future crises and discern new opportunities. Communication of the most direct top-down or broadcast kind is imperative; there's simply no time to ask for input.

Unfortunately, most leadership "recipes" arise from examples of good crisis manage-

ment. This is a mistake, and not only because chaotic situations are mercifully rare.

Though the events of September 11 were not immediately comprehensible, the crisis demanded decisive action. New York's mayor at the time, Rudy Giuliani, demonstrated exceptional effectiveness under chaotic conditions by issuing directives and taking action to reestablish order.

However, in his role as mayor—certainly one of the most complex jobs in the world—he was widely criticized for the same top-down leadership style that proved so enormously effective during the catastrophe. He was also criticized afterward for suggesting that elections be postponed so he could maintain order and stability.

Indeed, a specific danger for leaders following a crisis is that some of them become less successful when the context shifts because they are not able to switch styles to match it.

Moreover, leaders who are highly successful in chaotic contexts can develop an over-inflated self-image, becoming legends in their own minds. When they generate cult-like adoration, leading actually becomes harder for them because a circle of admir-

ing supporters cuts them off from accurate information.

Yet the chaotic domain is nearly always the best place for leaders to impel innovation. People are more open to novelty and directive leadership in these situations than they would be in other contexts.

One excellent technique is to manage chaos and innovation in parallel: The minute you encounter a crisis, appoint a reliable manager or crisis management team to resolve the issue. At the same time, pick out a separate team and focus its members on the opportunities for doing things differently. If you wait until the crisis is over, the chance will be gone.

Leadership Across Contexts

Good leadership requires openness to change on an individual level. Truly adept leaders will know not only how to identify the context they're working in at any given time but also how to change their behavior and their decisions to match that context. They also prepare their organization to understand the different contexts and the conditions for transition between them. Many leaders lead effectively—though usually in only one or two domains (not in all

of them) and few, if any, prepare their organizations for diverse contexts.

During the Palatine murders of 1993, Deputy Chief Gasior faced four contexts at once. He had to take immediate action via the media to stem the tide of initial panic by keeping the community informed (chaotic); he had to help keep the department running routinely and according to established procedure (simple); he had to call in experts (complicated); and he had to continue to calm the community in the days and weeks following the crime (complex).

That last situation proved the most challenging. Parents were afraid to let their children go to school, and employees were concerned about safety in their workplaces. Had Gasior misread the context as simple, he might just have said, “Carry on,” which would have done nothing to reassure the community.

Had he misread it as complicated, he might have called in experts to say it was safe—risking a loss of credibility and trust. Instead, Gasior set up a forum for business owners, high school students, teachers, and parents to share concerns and hear the facts. It was the right approach for a complex context: He allowed solu-

tions to emerge from the community itself rather than trying to impose them. • • •

Business schools and organizations equip leaders to operate in ordered domains (simple and complicated), but most leaders usually must rely on their natural capabilities when operating in unordered contexts (complex and chaotic). In the face of greater complexity today, however, intuition, intellect, and charisma are no longer enough. Leaders need tools and approaches to guide their firms through less familiar waters.

In the complex environment of the current business world, leaders often will be called upon to act against their instincts. They will need to know when to share power and when to wield it alone, when to look to the wisdom of the group and when to take their own counsel.

A deep understanding of context, the ability to embrace complexity and paradox, and a willingness to flexibly change leadership style will be required for leaders who want to make things happen in a time of increasing uncertainty.

5 WAYS TO IMPROVE RESILIENCE CAPABILITY



1 MANAGE YOUR PHYSICAL ENERGY

- Do you exercise regularly?
- Can you easily switch off from work?
- Do you get enough sleep?

Meditation is a useful technique for relaxation



2

KEEP EVERYTHING IN PERSPECTIVE

- Can you accept what you cannot change and focus on what you can?
- Do you acknowledge what you have done well, and celebrate success?
- Are you solution driven?

Subject any worries to the sticky paper test - how important will it be tomorrow, next week or in 6 months?



3

FOCUS ON PURPOSE, VALUES AND STRENGTHS

- Do you have a clear sense of purpose?
- Is there congruence with your own values and your work?
- What are your strengths, and can you use more of these at work?

Write your own personal mission statement to express what you value, your inspirations and long term goals



4

ENHANCE YOUR EMOTIONAL INTELLIGENCE AND INTERPERSONAL SKILLS

- Are you able to acknowledge and express how you feel?
- Can you change your mood and emotions when you need to?



Being intentional about helping others can lead to better mental health and reduce stress

5

BUILD CONNECTIONS

- Do you have a support network to help you through difficult times?
- Do you help support others when they need it?
- Is your network mutually supportive?

Social support is multi-faceted so consider both who is in your support network and what types of support they offer



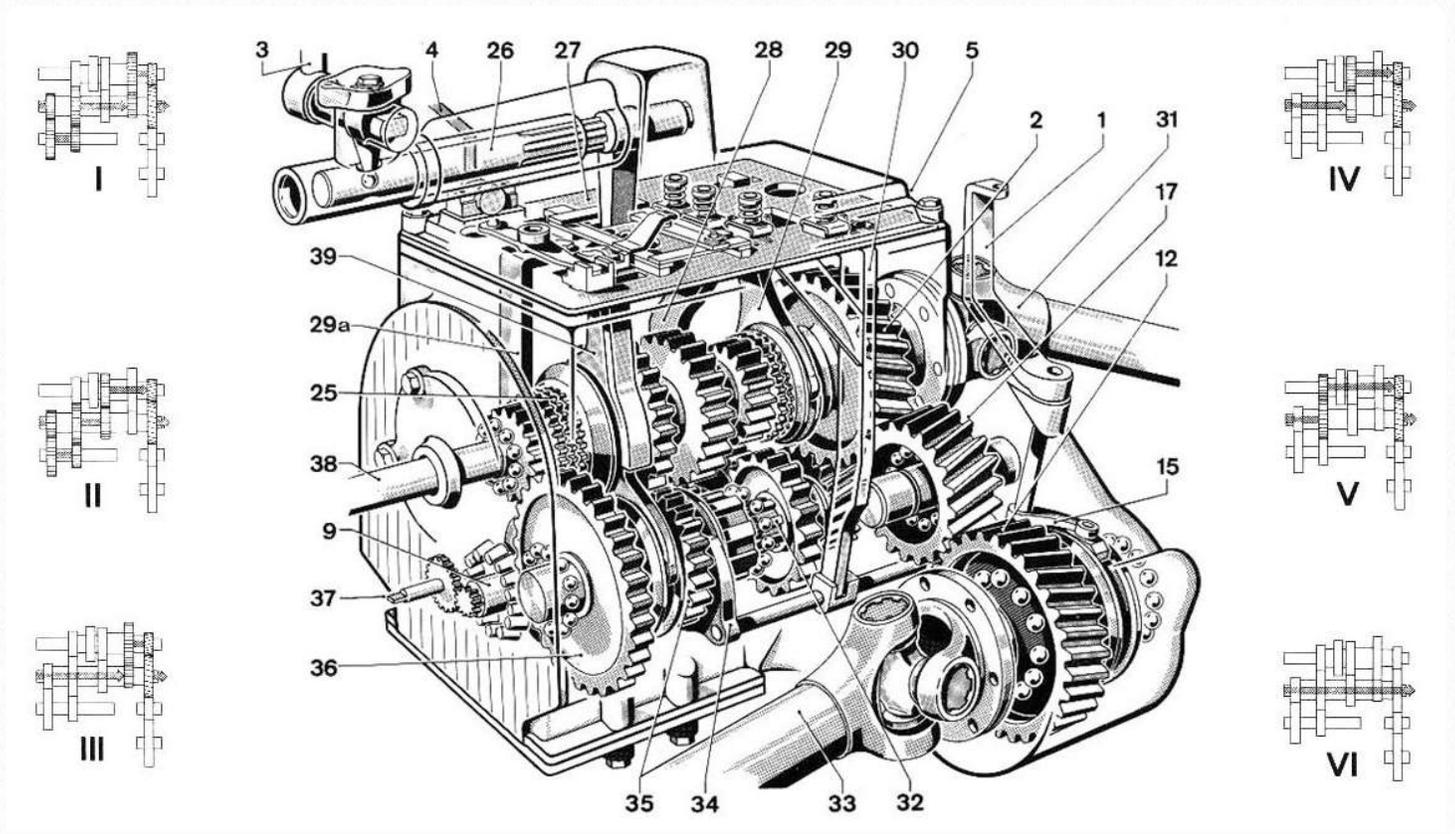
Roffey Park has a range of resources on the topic of resilience. This includes a new research report and an online tool to assess your own resilience capability. Visit www.roffeypark.com/buildingresilience to find out more

Movie 1.3 Dan Pink Persuasion (3min)



Bestselling author Dan Pink shows us how to influence others more effectively; it's as simple as A-B-C. Whether we're employees pitching to our bosses, parents and teachers cajoling kids, or politicians presenting new policies, we can all improve the way we persuade others.

How to Make Decisions



How You Make Decisions Is as Important as What You Decide

by Laurence Minsky and Julia Tang Peters

Conventional thinking has suggested that leadership positions go to those who aggressively plan their careers with a keen eye for building the right skills to reach top jobs. Others believe that leaders are born, not made. But according to research one of us (Julia) conducted for her book *Pivot Points*, the key differentiator between the career arc of someone who becomes a successful business leader and the average person is consistency in how the person makes major decisions.

In-depth one-on-one interviews with five recognized leaders who have been operating CEOs in five different industries—PR (Al Golin), health care (Glen Tullman), finance (John Rogers), social enterprise (Dale Dawson), and marketing (Bud Frankel)—revealed that their leadership development occurred in a process far more organic than career planning. Each one made a number of pivotal decisions with unwaveringly strong accountability and ingenuity that triggered learning and growth.

A further survey of 500 college-educated individuals in professional careers supported this finding and identified inclusiveness in the decision-making process as the key differentiator of leadership. Specifically, respondents were asked to indicate their degree of agreement on a five-point scale with 40 statements of various decision-making behaviors they used at different career decision points. A variable cluster analysis found strong agreement with the following three statements as the behaviors that distinguished decision making with leader-like accountability and ingenuity:

- Before making a decision at a critical time, I invested time and effort to explore multiple perspectives, needs,

and ideas through a proactive dialogue with experts and stakeholders.

- During the decision-making act, I weighed a variety of options.
- Then, after making the decision, I explained it fully to all stakeholders to reduce the stress of change among those affected.

Note that this inclusive process is not decision-making by committee or by consensus. It's the process of constant connection with respected experts and stakeholders, which enables them to recognize business opportunities and threats, and figure out how to adapt or take advantage of them.

Habitual outreach prevents insular thinking, opens doors to ideas and collaborative relationships, expands problem-solving perspectives, and increases the range of resources for implementation.

Most importantly, it enables real-time adjustments that improve outcomes. This inclusive approach takes 360 degrees of context into account, thereby ensuring better decisions and a higher chance of successful implementation.

In its full context, the study asserts that, over time, leaders who follow this inclusive process progressively stand out from the crowd. Consider the story of Bud Frankel, the founder of Frankel, a firm that created the marketing services industry (where both of us eventually worked) that gained a national reputation and attracted clients across both the consumer and healthcare areas.

As a leader in his company, Bud used what he called “Management by Wandering Around” (MBWA), where he’d stop into offices and ask the opinions of employees, clients, and others to gather insights about his organization and clients. He made it comfortable for people to give him contradictory advice and bad news. In doing so, he discovered major flaws in the company that called for radical change.

One such issue was years of growing discord between himself and his partner, Marv Abelson, and its divisive impact on the organization. “We were an ‘us’ team when we started out. Then competition between us brought out insidious kind of stuff—that’s my designer, that’s my copywriter, why isn’t your guy billing as much as my guy, all kinds of stuff,” Bud recalled while being interviewed for the book. “We

were Abelson-Frankel, yet operated as two separate agencies.”

Bud sought outside counsel on the fairest way to fix the issue, namely, to break up the partnership. Various perspectives he obtained helped him clarify his options and enabled rational decisions for all parties to focus on moving forward. He came up with two workable options: to buy or sell. Bud’s partner decided to sell and got cash, as well as the opportunity to hire any employee for his new agency.

With the purchase of Abelson’s shares, Bud invested all of his efforts to galvanize clients and employees around one vision and one leader. He took full ownership for the implementation of the decision, explaining his thinking and the implications to those affected. He encouraged feedback—even if the subordinate and clients disagreed with him—monitored the company’s progress and the results, and changed course when necessary. “Mostly I looked at the people and saw how they were doing and feeling,” Bud said told us in conversation. “I based a lot of decisions on the staff. If the staff were uncomfortable with a decision, I’d look at it.” What’s more, he would openly admit his mistakes, even apologizing at times to employees

All the art of living lies
in a fine mingling of
letting go...

and holding on.

- *Havelock Ellis*

who expressed disagreement with his decisions when they did not turn out as hoped.

As the agency grew, Bud appointed an agency leadership team and focused his energies on scaling up the company's unique value proposition. Bud continued to use MBWA to randomly drop in on meetings and pepper others with questions and stories, prodding them to create the breakthrough ideas that actually worked in the marketplace. He also formalized an outside advisory board of business leaders, thus ensuring that future leaders of the company would also get feedback on important leadership decisions.

Bud's inclusive approach kept him constantly connected with the pulse of his clients, employees, and the marketplace, and helped him decide on the ways to professionalize the marketing services industry and start his agency. Near the end of his career, it also helped him decide to sell Frankel. Through his ever-broadening perspective, he led Frankel to develop many firsts, including the first worthy cause promotion and the first to use computer graphics in advertising. It helped his own career to grow from a commission-based salesperson to a global, industry-changing business leader, marketing legend, and later, philanthropist.

In today's fast-paced environment of dramatically changing technologies and global forces, leaders need to understand how to make the right decisions the right way. By making use of those around you in understanding the situation, weighing a variety of options, and explaining the decision to stakeholders, leaders can make better decisions and set themselves up for future success.

Organizational Decisions



An Organization-Wide Approach to Good Decision Making

by Larry Neal Carl Spetzler

Behavioral economists and psychologists have uncovered scores of biases that undermine good decision-making. And, along with management experts, they have provided helpful tips that decision-makers can use to try to correct for those biases. But a comprehensive framework for achieving quality decision-making throughout an organization is still rare — almost three-quarters of companies have no formal corporate-wide approach to making major, complex decisions.

Without a proven, organization-wide approach, there may be, at best, isolated pockets of high-quality decision-making where individual leaders have elected to take a rigorous, transparent approach. Otherwise, the organization is at the mercy of the biggest bias of all: the perception that it is good at making decisions.

With an organization-wide approach you can increase the odds of circumventing that bias. Further, an organization-wide common language speeds up the making and reviewing of decisions. Transparency in how decisions are reached replaces the blind faith that people must place in the judgment of their superiors. Most importantly, more high quality decisions, instead of merely “good enough” decisions, together can add up to billions of dollars in additional value.

The first step is to define what a good decision looks like. In the early 1990s, Chevron (where until recently one of us worked) began experimenting with Decision Quality (DQ), a process that defines a high-quality decision as the course of action that will capture the most value or get the most of what you are seeking, given the uncertainties and complexities of the real world.

Armed with that definition, Chevron has applied the tools of Decision Analysis (DA), to the choices it faces. DA rejects the all-too-common approach of deciding between the status quo and a single alternative course of action. Instead, DA involves considering a range of possible outcomes, their probability of occurring, and the results (financial or otherwise) of each. Decision-makers can then compare alternatives in terms of both upside opportunity and downside risk, and make decisions in light of their own appetite for risk and tolerance of uncertainty.

With these methods in mind, we can describe the six elements of DQ that characterize any high-quality decision:

- An appropriate frame, including a clear understanding of the problem and what needs to be achieved.
- Creative, doable alternatives from which to choose the one likely to achieve the most of what you want.

- Meaningful information that is reliable, unbiased, and reflects all relevant uncertainties and intangibles.
- Clarity about desired outcomes, including acceptable tradeoffs.
- Solid reasoning and sound logic that includes considerations of uncertainty and insight at the appropriate level of complexity.
- Commitment to action by all stakeholders necessary to achieve effective action.

DQ won a foothold in Chevron through some eye-catching early successes in some major capital decisions. For example, one of the company's refineries needed upgrading to remain competitive in the refining business. A first pass at the problem resulted in a proposal to install a unit called a flexi-coker — a major system capable of refining a range of crude oil types and minimizing the ultra-heavy coke residual.

During the installation, the refinery would have to be shut down, resulting in a significant loss of revenue. Flexi-cokers are expensive, and related improvements proposed for implementation during the shutdown would add to the project's cost. As details of the engineered design matured, the estimated cost escalated, nearly doubling to \$2 billion. At that point, senior management asked for a more rigorous review to better understand the risks and risk/reward balance.

To revisit the issue, the team tasked with the review turned to DQ concepts. In the course of the DQ process, the frame was widened to include all improvements that could be made during shutdown of the facility, including those unrelated to the flexi-coker. Doable alternatives, excluding the flexi-coker, were explored. The team then analyzed what would happen if certain variables like feedstock crude oil price, wholesale gasoline prices, and project duration deviated more than had been expected originally. And they analyzed the probability of these specific deviations occurring. The team was then able to articulate the overall risk profile of the project: the potential costs for each deviation and the likelihood of each occurring. These methods revealed that the risk profile of the project as originally conceived was more than Chevron's management was willing to accept.

A set of acceptable cost/value trade-offs, and the likelihood of achieving them, was determined. Further analysis revealed that it was the proposed new flexi-coker itself that was contributing the bulk of the downside risk. At this point, Chevron's management publicly announced the shelving of the flexi-coker portion of the project.

Chevron estimates that revisiting the decision and the subsequent change in project scope captured more than 50% of the original projected value at 25% of the cost, regaining the competitive position of the refinery at a much lower level of deployed capital.

For the first 10 years, the use of these decision techniques by various groups in Chevron was voluntary, though there were a string of early successes. During that time, Chevron proceeded to build deep internal competence in the discipline – introducing thousands of decision-makers to DQ and DA and developing hundreds of internal decision support professionals who applied them to many major decisions.

When David O'Reilly became Chairman and CEO in 2000, he insisted that DQ become mandatory on all capital expenditures over \$50 million. Decision executives were also required to become certified in the fundamentals of the approach. Decision professionals were embedded in the organization around the world, and became part of the Chevron capital stewardship process.

The impact of many thousands of people making even marginally better decisions was huge in a company Chevron's size. And in operations, where decisions are made almost daily, the result was, in effect, continuous improvement.

Achieving that level of decision quality throughout your organization takes some work, but you will quickly find that it has great appeal, apart from the value it captures through consistently higher-value decisions. Decision-makers and teams are energized by its capacity to get people to agree on a decision, though they may have begun with widely divergent views about the best course of action.

However, as anyone who has ever seen groupthink in action knows, any number of otherwise intelligent people can come to agree on nonsense. Conversely, autocratic leaders can simply impose their will. But by first defining what constitutes a high quality decision and

Movie 1.4 John Oliver: Ayn Rand Objectivity (4min)



LAST
WEEK
TONIGHT
WITH JOHN OLIVER

Ayn Rand, author of "Atlas Shrugged" and "The Fountainhead" is still kind of a thing. How?

Transparency Trap



The Transparency Trap

by Ethan Bernstein

“Transparency” is a watchword in management these days, and it’s easy to understand why. After all, if people conduct their work in plain view, won’t they be more open and accountable? Won’t they flag and fix problems more easily, and share information and their good ideas more freely?

That’s certainly what I expected to discover a few years ago, when I went in search of empirical evidence that transparency improves performance in organizations. But through rig-

orous field research and experiments, and observations by embedded researchers, I learned that it's not that simple. My findings, which complement various studies on open workspaces, suggest that more-transparent environments are not always better. Privacy is just as essential for performance.

Here's the paradox:

For all that transparency does to drive out wasteful practices and promote collaboration and shared learning, too much of it can trigger distortions of fact and counterproductive inhibitions. Unrehearsed, experimental behaviors sometimes cease altogether. Wide-open workspaces and copious real-time data on how individuals spend their time can leave employees feeling exposed and vulnerable. Being observed, changes their conduct. They start going to great lengths to keep what they're doing under wraps, even if they have nothing bad to hide. If executives pick up on signs of covert activity, they instinctively start to monitor employee behavior even more intensely. And that just aggravates the problem.

If all this seems vaguely Orwellian, so did some of the activities I saw in leading companies where intense visibility and tracking

were making things worse, not better. For instance, at one of the world's largest mobile phone factories, which is in China and is owned by a global contract manufacturer, the workers on one line were hiding process improvements they had made—not just from managers but from their peers on other lines. Why? Because, as one experienced worker explained, “it's most efficient to hide it now and discuss it later. Everyone is happy: They see what they expect to see, and we meet our targets.”

This was not an isolated example. In my research, I found that individuals and groups routinely wasted significant resources in an effort to conceal beneficial activities, because they believed that bosses, peers, and external observers who might see them would have “no idea” how to “properly understand” them. Even when everyone involved had only the best of intentions, being observed distorted behavior instead of improving it.

Some organizations, however, had found the sweet spot between privacy and transparency, getting the benefits of both. They used four types of boundaries to establish certain zones of privacy within open environments:

- They created boundaries around individual teams—zones of attention—to avoid exposing every little action to the scrutiny of a crowd. They drew boundaries between feedback and evaluation—delineating zones of judgment—to avoid politicking and efforts wasted on managing impressions.
- They set boundaries between decision rights and improvement rights—establishing zones of slack—to avoid driving out tinkering.
- And they put boundaries around carefully defined periods of experimentation—zones of time—to avoid both too frequent and too infrequent interruptions.

Across several studies involving different industries, cultures, and types of work, the companies that had done all this were the ones that consistently got the most innovative, productive, and thoughtful work from their employees.

Type 1: Boundaries Around Teams

As social media platforms, wearable devices, and other tools for transparency be-

come more advanced, our sense of being “onstage” is growing. And so, in keeping with the sociologist Erving Goffman’s insights about interpersonal behavior, *we spend more time acting, trying to control others’ impressions and avoid embarrassment—particularly at work. We cater to our audience, doing what’s expected.*

That was the case at the Chinese mobile phone factory, which had 14,000 workers. When I began studying that work environment, it seemed like the epitome of transparency: Each floor—roughly the size of a football field, with no walls or other divisions—held as many as 2,000 workers across shifts.

By embedding into the lines five Chinese-born Harvard undergraduate researchers—who worked, ate, and lived alongside the employees, who knew them only as co-workers—I quickly learned that the production teams hid a great deal from observers, despite the open environment.

For example, to speed up assembly, workers scanned multiple bar codes into the system at once instead of scanning each one individually after applying it to a metal shield in a phone, as standard operating procedure required. And team members cross-trained on tasks during downti-

me—it looked like fooling around from the outside—so they could cover for one another when an operator fell behind. There was no ill intent—only a rational calculation about how to be most productive without having to waste time on explanations.

Such subterfuge is problematic for a host of reasons, though, ranging from increased risk of compliance-related defects to a lack of shared learning.

To test some basic interventions that might address it, I set up a few field experiments. On one floor, where 32 production lines made similar mobile data cards, I randomly selected four lines on which to experiment, leaving 28 “controls” to work as they always had.

Because one of the experimental lines was very close to a control line, engineering put up a curtain between the two. When it was raised, one of the embedded students overheard a worker say, “Wouldn’t it be nice if they hung up curtains all around the line, so we could be completely closed off? We could be so much more productive if they did that.”

Curious to see if that would be true, I asked engineering to fully encircle each experimental line with the equivalent of a hospital bed curtain. Over the next five

months, to my surprise, the lines with curtains were 10% to 15% more productive than the rest, even when I controlled for other influences (such as the Hawthorne effect, whereby subjects improve simply in response to being studied).

By shielding employees from observation, the curtains supported local problem solving, experimentation, and focus. But within the curtains work became much more transparent. Partly for that reason, defects remained extremely low, even as throughput rose. And over time the camaraderie within boundaries made the workers more likely to share—as a group—their privately worked-out solutions with other lines.

Traditionally, people in organizations expect full transparency within teams but not necessarily beyond them.

Team boundaries can allow for productive, selective opacities within starkly transparent environments—as was clear at Valve Software, a top PC game developer I studied with Francesca Gino and Bradley Staats.

Valve’s 400-plus employees are allowed to allocate 100% of their time to projects they feel are valuable to customers. When they collaborate on new products or features, they form teams called cabals and

move their desks (which are set on wheels) together into clusters. The office layout is so fluid, with some individuals rolling their desks to different cabals multiple times a week, that Valve even has an internal application to track desk location.

Valve's cabals choose their own workspaces, creating privacy by positioning themselves at a distance from others. Though transparency is high within them, it's moderate at best across the company because of the physical separation and Valve's distaste for managerial oversight. (No one has the role of keeping tabs on the cabals or shuttling information back and forth.) This gives the cabals more freedom to investigate ideas.

When one employee started a cabal to explore how Valve could get into hardware, the team was initially tiny. Had it immediately tried to rally the support of the entire organization of software engineers, the hardware concept might have been dead on arrival—*it's hard to persuade lots of people at once to embrace anything new, even at Valve*. But acquiring a few followers with whom to experiment and create prototypes, was doable.

Gradually, the hardware cabal accreted people and resources, gaining scale and

momentum. To recruit more people to join it, early members eventually had to tell others what they were up to. In other words, they increased their transparency outside the group—but in their own way and when they were ready.

We've seen it happen with curtains, counters, and cabals: *Even nominal team boundaries relieve the pressure of being onstage by keeping the audience small.*

Is Valve providing an innovative, productive work environment? Its success suggests that it is. In its 18-year existence, Valve has produced a large share of top PC games. According to its founder, Valve has grown sales by more than 50% every year and brought in more revenue per employee than Apple or Microsoft. Its game platform consumes more bandwidth than most countries do. The cabals help the company compete in a market where creativity and rapid prototype and launch capabilities are critical.

Though Valve is an extreme case (and its success is a product of many factors), other firms are similarly fostering innovation and productivity by allowing privacy within team boundaries. For instance, Google doesn't track when and where its engineers spend the 20% of their time that

they devote to projects that interest them personally—but they feel transparently accountable to others within the self-organized teams in which the work gets done. And that protected 20% time has been credited with the incubation of more than half of Google’s current product portfolio, including Gmail, AdSense, Google Talk, Google News, Google Transit, Google Now, and the Google Transparency Report.

Team boundaries have a big impact on performance for service providers as well. In a recent Harvard Business School study, Melissa Valentine and Amy Edmondson show how such boundaries (in their case, counters delimiting small and very fluid groupings of nurses and physicians) improved teamwork and efficiency in a hospital’s emergency department.

Transparency and accountability among people working within the boundaries increased. As a result, average patient time in the department fell by more than 40%, with no decrease in quality.

Remarkably, the department sustained that improvement for over a year (the length of the study) even though its daily patient volume rose by more than 25%.

Although tools for observation and collaboration have become more powerful, making it easier for individuals to do much of their work without formal teams to support them, teams are actually proliferating rather than dying off.

Longitudinal surveys show that today nearly all Fortune 1000 firms have formal team structures, compared with fewer than 20% in 1980. Though a number of factors are driving that trend, my research suggests it has something to do with the value of boundaries.

Workers today can tackle problems in cooperation with large networks—and even crowds—of people, but as teams scholar Richard Hackman demonstrated, they frequently do it better on clearly bounded teams. Boundaries create a focus on “us” and “our work together,” liberated from external noise, whether it’s unproductive interference or chaotic workflow.

No matter what the work is, some observers will increase productivity, but others will undermine it. Whether boundaries are spatial or psychological, they can limit observation to a zone of people. It happens with curtains, cabals, counters—even nominal team boundaries mitigate the pres-

asures of being onstage by keeping the audience small.

Type 2: Boundaries Between Feedback and Evaluation

Organizations are incorporating more and more real-time data—all those electronic bread crumbs we leave behind as we do our work—into performance assessments. *In response, employees waste a lot of valuable energy managing impressions.*

But tools that separate data-informed feedback from the evaluation process help lower people's defenses and put the focus squarely on productivity and problem solving, where you want it.

In general, any information that goes into a formal performance review tends to put people on edge. Nevertheless, most employees are keenly interested in improving their skills. Just look at the popularity of Rypple, a social media platform created to allow members of organizations to give and gather anonymous feedback.

“You simply had to ask, ‘How am I doing at X?’” explains Rypple cofounder Daniel Debow, “and the answers were purely for you.” Because only the recipients had ac-

cess to their feedback, fear of repercussions was removed from the equation. Further, Debow notes, those giving the feedback submitted honest, useful appraisals—with assurance of privacy, they didn't have to worry that candid criticism might damage colleagues' reputations.

Another way of allowing employees to learn from their day-to-day actions without having every little mistake exposed to management is to deliver feedback within a protective bubble.

A large U.S. trucking company did this when it installed a DriveCam at the top of each tractor cab's windshield to improve driver safety and performance. The small video camera points both outside and at the driver, gathering and wirelessly transmitting data that analysts can use to flag risky behaviors and prevent accidents.

A green light tells the driver that all is well. But during a “G-force event” (any erratic driving incident that causes gravitational force, such as excessive speeding, slamming of brakes, or sudden swerving), the light blinks red and green. If the force is strong enough, the light turns red and the camera stores footage from eight seconds before and four seconds after the event. (On average, each vehicle's DriveCam

stores about five minutes' worth of video a month.) The DriveCam also records key metrics, like the truck's speed and location.

A small group of coaches who oversee fleet safety review any events deemed preventable. Only in a situation involving damage or a willful breaking of the law—for instance, failing to use a seat belt or texting while driving—would the coaches share footage with management. And the supervisors who evaluate the truckers aren't privy to the coaching.

When the DriveCams were installed, drivers initially dreaded “being watched by Big Brother.” Some got distracted when the red light came on, which made safety worse. But drivers have since warmed to the cams, because they now trust that management won't use the videos to evaluate or reprimand them.

As one coach explains, the collaboration is helping drivers “turn bad habits into good habits” and improving their safety record. When coaches look at the footage with drivers, “it really does help,” another says. “It changes people's perspectives.” Sometimes it's just a simple realization: “Wow, you know, I was following a little too closely.”

Type 3: Boundaries Between Decision Rights and Improvement Rights

Managers work hard to clarify decision rights, and for good reason. Spelling out who gets to make which calls helps organizations run more smoothly. It prevents duplicated effort, for example, and decision gridlock.

But the empowerment of a select few can leave the other people in the organization feeling voiceless, especially if they aren't explicitly invited to improve systems, processes, roles, and tasks. Employees may withhold their ideas or implement them on the sly.

When organizations don't grant improvement rights to those without decision rights, innovation by those who see solutions where others don't—known as productive, or positive, deviance—is effectively squashed in favor of conformity and compliance.

It's important to draw a line between the two kinds of rights, because the people exercising them have different needs. Holders of decision rights benefit from a transparent environment, where “every small fact becomes the subject of careful, scientific investigation,” as Frederick Winslow Taylor put it more than a century ago.

But while holders of decision rights want perfect visibility, which requires transparency from everyone, that kind of visibility gets in the way of employees' striving to make things better, because it curtails the experimentation necessary for improvements, as seen in the mobile phone factory and other settings.

In fact, a long stream of research tells us that in the presence of others, people do better on repetitive, practiced tasks—what psychologists call dominant responses—but worse on learning tasks that call for creative thinking.

The visibility created by transparency conjures up self-consciousness and inhibitions. That's why musicians perform in front of an audience but practice without one—they need privacy to noodle and make discoveries.

So, the right level of transparency—and thus oversight—depends on the activity and the observer. While musicians may practice in front of a teacher, that teacher is an invited coach, not a consumer of their work.

Technology is making close scrutiny by large audiences of consumers possible to a degree that Taylor could never have imag-

ined, and clear decision rights amplify its effects.

If you're under the spotlight in front of such an audience, the last thing you want to do is to make unpracticed improvements while being held to a performance standard. All that transparency can create yearning for a closed door with a sign that says, "I'm in rehearsal!"

Organizations that understand all this are giving employees a reprieve from total transparency in order to make "slack" (excess resources) more productive rather than more scarce.

Take Flextronics, a company that Willy Shih, Nina Bilimoria Angelo, and I have studied. By setting up a "moonshine shop," Flextronics has turned its factory floor in Guadalajara into a veritable Legoland for workers.

The shop gives employees a place to develop tools and fixtures for their lines in periods of downtime—creative work that imparts a sense of ownership. (Manufacturing companies often facilitate improvement rights in this way.) Made of simple pipes, connectors, and recycled materials, the designs produced in the shop can cost a tenth of what it takes to produce the

more complex, specially sourced fixtures provided by vendors.

The quality makes IKEA look high-end, but the designs do the job efficiently, safely, and effectively. More important, the shop encourages continual innovation by the operators, creating efficiencies that would otherwise remain in the imagination of workers.

Manufacturers aren't the only organizations that have made slack more productive by protecting improvement rights. Saravanan Kesavan, Bradley Staats, and I saw this happen at the U.S. retailer Belk when it upgraded a mostly manual labor-scheduling system for its 24,000 employees and 300-plus department stores.

Belk could have followed the lead of large retailers that have automated nearly all the scheduling task, increasing the efficiency of labor with complex algorithms based on minute-by-minute sales figures, real-time weather predictions, activity-based time studies, and other data. But Belk wanted to give its store managers and schedulers the flexibility to account for staffing variations and other local factors, since retail labor is a key driver of customer experience—and, therefore, sales.

So its managers chose the simplest form of the technology and allowed local store managers and schedulers to exercise judgment, revising the schedules proposed by the system without having to seek corporate-level approval.

In the early days they revised more than 70% of the scheduling. Now that rate is below 50%—a more efficient, productive range. And while at least one of Belk's competitors recently suffered well-publicized challenges in getting a return on its new fully automated scheduling system, Belk's pilot stores showed a 2% lift in gross profit by the end of 2013, several months after implementing the version that allowed for overrides.

Which employees should be given improvement rights in order to create productive zones of slack? That depends on the organization and its leadership.

In a lean environment everyone may be responsible for improvement. But other companies might treat it as an opportunity, not a mandate, perhaps vesting improvement rights in an R&D unit, a heavyweight team of senior managers, or frontline workers.

Or an organization might outsource improvements to suppliers, contractors, or consultants.

In any case, the assignment of improvement rights both reflects and influences strategy, so leaders must protect them by putting skunkworks activities inside zones of privacy.

Type 4: Boundaries Around Time

Another way to strike the right balance between transparency and privacy is to experiment within limited blocks of time. With this approach, executives give employees more freedom for a specified period, so people can prepare for—and make the most of—their window of privacy.

This type of boundary complements the other three. A company might set up temporary teams for idea gestation, provide a onetime stream of developmental feedback (such as a 360-degree evaluation) that won't make its way into performance reviews, or assign improvement rights to a certain group for a quarter. Some biotech and consulting firms have borrowed the concept of the sabbatical from education and offered employees periods of relatively opaque slack. Googlers often use their 20% time on Fridays.

Tony Lo, the CEO of Giant Bicycles, granted CFO Bonnie Tu time-limited

decision-making authority when he asked her to develop a business model to better meet female customers' needs.

Lo saw Tu as a perfect leader for this initiative: Her seniority, reputation, and financial acumen gave her the freedom to break the usual rules. Lo—who was used to checking on important projects monthly, weekly, or even daily—left Tu alone for six months, the amount of time he thought it should take to develop and launch the idea.

Tu and her team delivered brilliantly: They created a store in Taipei for women only—which reached profitability faster than any other Giant store. It has spawned a number of innovative products and serves as a model for similar stores around the globe.

In the same spirit, several major retailers have supplemented corporate planograms with “flexograms,” enabling individual store managers to change how and where they display products in response to customer behavior.

While some retailers, like H&M, have made flexograms a standard practice, most limit them to times of year when local customization and ingenuity are likely to maximize sales. They frequently allow experimentation during the December holiday season, for example.

A word is not a crystal;
transparent and
unchanged.

A word is the skin of a
living thought, and
may vary greatly in
color and content;
according to the
circumstances, and
the time, in which it is
used.

- Oliver Wendell Holmes

CVS put its sun care displays on wheels so that store managers could easily reposition them to take advantage of fast-changing weather and buying trends at specified times during key periods in the summer.

Sir Alex Ferguson, the former manager of the Manchester United football club, who is widely believed to be one of the greatest coaches in history, had an interesting take on transparency and its effects on performance. Though he championed the use of vests fitted with GPS sensors, which allowed analysis just 20 minutes after a training session, he said he would “never criticize a player during a training session. That’s where they try the irreverent things that will, and won’t, work during a match.”

It’s an important point:

Irreverence increases our willingness to test how we do things and to deviate from the norm.

But total transparency heightens the risk that our irreverence will come back to haunt us—and thus has a chilling effect on experimentation.

Advanced sensing and tracking technologies make behavior highly visible in real time. How all that information should be used—by individuals, their teams, their supervisors—is a management question, not a technology question.

Organizational cultures that foster psychological safety, trust, balanced power dynamics, and collaboration can help. But it’s also critical for leaders to mitigate transparency with zones of privacy, enabling just the right amount of deviance to foster innovation and productivity.



LEVEL 5

LEVEL 5 EXECUTIVE

Builds enduring greatness through a paradoxical blend of personal humility and professional will.

LEVEL 4

EFFECTIVE LEADER

Catalyzes commitment to and vigorous pursuit of a clear and compelling vision, stimulating higher performance standards.

LEVEL 3

COMPETENT MANAGER

Organizes people and resources toward the effective and efficient pursuit of predetermined objectives.

LEVEL 2

CONTRIBUTING TEAM MEMBER

Contributes individual capabilities to the achievement of group objectives and works effectively with others in a group setting.

LEVEL 1

HIGHLY CAPABLE INDIVIDUAL

Makes productive contributions through talent, knowledge, skills, and good work habits.

Movie 1.5 Aj+ G7 and G20



Every year, people gather to protest at the G7 and G20 summits. But do you know who the real G's are and what they do?

Good to Great P1



Chapter 1 - Good is the Enemy of Great

Theme of the book – Discovering what made good companies great.

Phase 1: The Search

A six month long financial analysis looking for companies that showed the following basic pattern: 15 years cumulative stock returns at or below the general stock market, punctuated by a transition point, and then cumulative stock returns three times higher than the general stock market for 15 years.

Phase 2: Compared to What

‘Direct comparison’ – companies were identified based on: the same industry, opportunity and resources at the time of transition, but failed to show no leap from good to great.

‘Unsustained comparison’ – companies that displayed short good to great traits but couldn’t maintain them.

The main question was what did the good-to-great companies share in common that distinguished them from the comparison companies?

The study resulted in eleven good-to-great companies, eleven direct comparison companies, and six unsustained comparison companies.

Phase 3: Inside the Black Box

The analysis of each case was then categorized by strategy, technology, leadership, and so on.

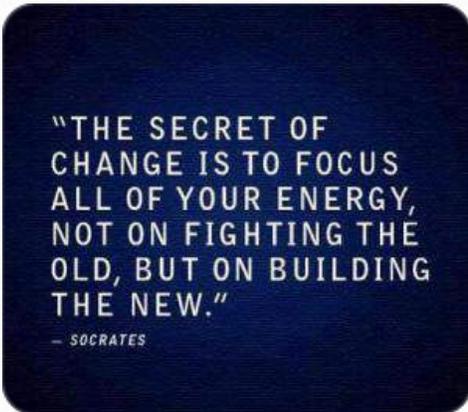
The analysis also includes:

Interviewing executives, acquisitions, business strategy, executive layoffs, financial ratios, and compensation.

It was estimated that the analysis consumed 10.5 years of people effort, in an attempt to develop a systematic approach of contrasting the good-to-great companies to the comparison.

Phase 4: Chaos to Concept

- Developing a framework of concepts
- Meeting rigorous standards before deeming it significant
- The final framework and concepts are not the opinions of the research team



“THE SECRET OF
CHANGE IS TO FOCUS
ALL OF YOUR ENERGY,
NOT ON FIGHTING THE
OLD, BUT ON BUILDING
THE NEW.”

– SOCRATES



HUMILITY + WILL

Blend of personal humility and intense professional will

To keep our faces toward change and behave like free spirits in the presence of fate, is strength undefeatable.

- Helen Keller

Chapter 2: Level 5 Leadership

Hierarchy: the traits of Level 5 Leaders

Level 5 – Level 5 Executive

Builds enduring greatness through a paradoxical blend of personal humility and professional will

Level 4 – Effective Leader

Catalyzes commitment to and vigorous pursuit of clear and compelling vision stimulating higher performance standards.

Level 3 – Competent Manager

Organizes people and resources toward the effective and efficient pursuit of predetermined objectives

Typical descriptions of interviews with the Level 5 leaders included: quiet, humble, modest, reserved, shy, gracious, mild-mannered, self-effacing, understated...

Level 2 – Contributing Team Member

Contributing individual capabilities to achievement of group objectives and works effectively with others in a group setting

Will

Unwavering Resolve to do what must be done

A ferocious resolve and determination to produce results – fanatically driven
Inspired standards – could not stand mediocrity

Level 1 – Highly Capable Individual

Makes productive contributions through talent, knowledge, skills, and good work habits

Most of the good-to-great CEOs came from within the company three of them from family inheritance, and they weren't afraid to make top level changes.

George Cain, CEO of Abbott Laboratories:

Humility + Will

“Neither family ties nor length of tenure would have anything to do with whether you held a key position in the company...”

Humility

Never let your ego get in the way of your ambition for the company and concern for its success. Compelling modesty – always attributing success to other factors other than themselves

If you didn't have the capacity to become the best executive in the industry in your span of responsibilities, then you would lose your paycheck.”

Cultivating Level 5 Leadership

Can you learn to become Level 5?

Nothing concrete to suggest Level 5 leadership is engrained or learned. The biggest obstacle is the balance of personal ambition and humility – putting aside egotistical needs for the betterment of building something greater than oneself. For most people work is about what they get.

\$1 invested in Abbott in 1974 (transition point) would have been worth \$271 in 1995!

The Window & Mirror

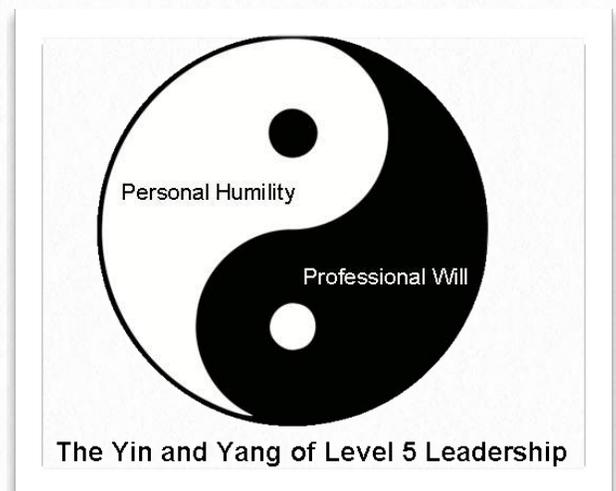
Most of the CEOs stated luck as a factor to their company's success, which most likely can be traced back their humility.

But the fact that it came up over and over again prompted the authors to give it some considerations.

When comparing the good-to-great companies with the comparison group they found:

Level 5 leaders look out the window to apportion credit to factors outside themselves and if they can't find someone to give credit to - they credit luck, and look in the mirror to apportion responsibility, never blaming bad luck when things go poorly.

Conversely, the comparison leaders did the opposite, looking out the window for something to blame and in the mirror to credit themselves.





PEOPLE BEFORE STRATEGY

Get the right people first and
then set the right strategy

All the world's a stage,
and all the men and
women merely
players; they have
their exits and their
entrances, and one
man in his time, plays
many parts.

- *William Shakespeare*

Chapter 3 First Who...Then What

Transformation

Get the right people on the bus, the wrong people off, and then figure out where to drive it.

Must begin with “who” rather than “what” – Reason, if people are on the bus because of ‘where’ then what happens when the bus changes direction?

The right people on the bus eliminate the need to motivate and manage.

Get the wrong people off the bus – great vision without great people is irrelevant.

In the 1970's CEO Dick Cooley (Wells Fargo), instead of mapping out a strategy for the deregulation changes he hired outstanding people whenever and wherever they found them, often without any specific job in mind. \$1 invested in Wells in 1973 was worth \$74.47 in 1998.

*Not a "Genius with a Thousand Helpers"
The comparison companies were more concerned with getting one individual as the primary driving force for the company's success.

The genius at top rarely built strong management teams – they didn't want one. All they wanted was good soldiers, but when the genius left the soldiers couldn't make decisions on their own.

Difference in Philosophy

Level 5 + Management Team

- First Who – build a superior executive team
- Then What – figure out the best path to greatness

A Genius with a Thousand Helpers

Level 4 Leader

- First What – set a vision for where to drive the bus
- Then Who – enlist a crew of highly capable helpers

It is who you pay, not how you pay them

The study found no systematic pattern linking executive compensation to the process of going from good to great.

The use of stock options, high salaries, bonus incentives, or long term compensation weren't a factor in making the transition.

The most important factor was getting the right people on the bus. Nucor stated the most important asset is the right people, and placed greater weight on charter attributes than on specific educational backgrounds, practical skills, specialized knowledge, or work experience.

Nucor returned 5.16 times the market from 1975 to 1990.

Rigorous, Not Ruthless

If you don't have what it takes, you probably won't last long. To be rigorous means to apply exacting standards at all levels. During most acquisitions the good-to-great companies would terminate large portions on the old firm's employees, only keeping the best. When Wells Fargo acquired Crocker it terminated 1600 employees.

There mind set was, "If they aren't going to make it on the bus in the long term, why let them suffer in the short term." They thought it was more ruthless to let someone linger around who they would have to fire in the end.

How to be Rigorous Practical Discipline

1. When in doubt don't hire, keep looking.
2. When you know you need to make a people change, ACT.
3. Put your best people on your biggest opportunities, not your biggest problems.





FACTS + FAITH

Have strong faith yet confront facts of your current reality

If it's never our fault, we can't take responsibility for it. And if we can't take responsibility for it, we will always be its victim.

- Richard Bach

Chapter 4 – Confront the Brutal Facts

Facts are better than dreams

When it came to making tough decisions the good-to-great companies infused the entire process with the brutal facts of reality.

When your honest about your situation the solutions are generally self evident.

Create a culture where people have an opportunity to be heard

Don't focus on motivating people through the vision, get the right people on the bus and share with them the finding of the company. The best way to de-motivate people is to hold out false hope.

4 Basic principles in creating the culture

1. Lead with questions not answers

Use questions for one and one reason, to gain understanding. Don't question to manipulate or place blame

2. Engage in dialog and debate, not coercion

Create intense dialog, don't use discussions as a sham process to people buy in to a predetermined decision.

3. Conduct autopsies, without blame

When you conduct autopsies without blame, you go a long way toward creating a climate where the truth is heard

4. Build red flag mechanisms

Turn information into information that can't be ignored

Unwavering Faith amid the Brutal Facts

Darwin Smith of Kimberly-Clark stated on taking on Proctor & Gamble, "We will never give up. We will never capitulate. It might take a long time, but we will find a way to prevail."

The Stockdale Paradox

"You must never lose faith that you will prevail in the end-which you can never afford to lose-with the discipline to confront the most brutal facts of your current reality, whatever they may be."

Admiral Jim Stockdale, prisoner of war 1965 – 1973, tortured over 20 times.

Retain faith that you will prevail in the end, regardless of the difficulties. And at the same time, confront the most brutal facts of your current reality, whatever they might be.

IF YOU HAVE

food in your fridge, clothes on your back, a roof over your head and a place to sleep

YOU ARE RICHER THAN 75% OF THE WORLD.

IF YOU HAVE

money in the bank, your wallet, and some spare change

YOU ARE AMONG THE TOP 8% OF THE WORLD'S WEALTHY.

IF YOU WOKE UP THIS MORNING WITH MORE HEALTH THAN ILLNESS YOU ARE MORE BLESSED THAN THE MILLION PEOPLE WHO WILL NOT SURVIVE THIS WEEK.

if you have never experienced the danger of battle, the agony of imprisonment or torture, or the horrible pangs of starvation

YOU ARE LUCKIER THAN 500 MILLION PEOPLE ALIVE AND SUFFERING.

IF YOU CAN READ THIS MESSAGE YOU ARE MORE FORTUNATE THAN 3 BILLION PEOPLE IN THE WORLD WHO CANNOT READ IT AT ALL.

Movie 1.6 End Inequality and G8



Sustainable Human

“End Inequality” makes the moral case to those in power to do what is within their power to do – end global hunger and poverty. What other problems could we solve if we simply worked together?

MOD2

Org Behavior

CLASS DAY TWO



Security is mostly a superstition. It does not exist in nature. Nor do the children of men, as a whole, experience it.

Avoiding danger is no safer in the long run, than outright exposure. Life is either a daring adventure, or nothing.

- Helen Keller

How Being Filmed Changes Employee Behavior

by *Ethan Bernstein*

Since Michael Brown's shooting in Ferguson, Missouri, more than 154,000 people have signed a "We the People" petition to the White House to "require all state, county, and local police to wear a camera" to curb misconduct. The Ferguson police force was recently given about 50 cameras, following a national trend toward tech-enabled transparency.

The public may expect cameras to remove bias from interpretation of police behavior. If we can just see what happened, the thinking goes, we'll know who was in the wrong.

But that's not what the research shows. Video (particularly one-way footage) is not an all-seeing, neutral observer, as Florida International University law professor Howard Wasserman has repeatedly pointed out. The most significant impact of bodycams, taxicams, and the like is not reliving the past but, rather, changing behavior in the present. We act differently when we know we're on camera.

That can certainly be a good thing, as researchers found in a field experiment with California's Rialto Police Department. In that study, incidents occurring during shifts without cameras were twice as likely to result in the use of force. Indeed, when officers wore cameras, every physical contact was initiated by a member of the public, while 24% of physical contact was initiated by officers when they weren't wearing the cameras.

You'll see similar results — with an interesting twist — in a study by Washington University's Lamar Pierce and his co-authors, who looked at employee behavior at almost 400 U.S.

restaurants. Technology-based monitoring reduced restaurant employee theft by 22%, or about \$24 per week. (The effect grew over time, with theft dropping \$7 a week the first month and \$48 a week by the third month.) But the monitoring actually had a much larger impact on productivity and sales: On average, total check revenue increased by 7% (\$2,975 per week), and total drink revenue by 10.5% (\$927 per week). Tips went up, too, by 0.3%.

When it became harder for workers to steal money, the researchers observed, people redirected their efforts toward “increasing sales and customer service in order to regain some of that loss.” The positive responses — performance improvements that benefited employees as well as their employers — were more substantial than the negative behaviors prevented by the monitoring.

So perhaps the real upside of surveillance is the potential to spot and reward good work, not to deter bad conduct. Other research suggests that, as well. A food-service study, for example, found that dining hall customers perceived greater employee effort and valued the service more when they could watch workers doing their jobs (through video-conferencing software on iPads). The effect was mutual: Employ-

ees felt more appreciated and, in turn, exerted greater effort when they had a clear view of customers. They completed orders much faster, and customers reported higher food quality. The reciprocal transparency created a positive feedback loop, generating value for both groups.

But transparency can also have an unintended negative consequence: Knowing that their managers and others will closely evaluate and penalize any questionable recorded behavior, workers are likely to do only what is expected of them, slavishly adhering to even the most picayune protocols. That’s what has happened in factory production work, where excessive transparency has thwarted both creativity and productivity. Assembly line workers hide fruitful time-saving and cross-training experiments to avoid having to explain them to anyone who might be watching. (See my recent HBR article about such tradeoffs.)

If too much transparency kills innovative behavior, how can police departments improve officers’ track record on profiling without sacrificing the kind of educated risk-taking and problem solving that’s often needed to save lives?

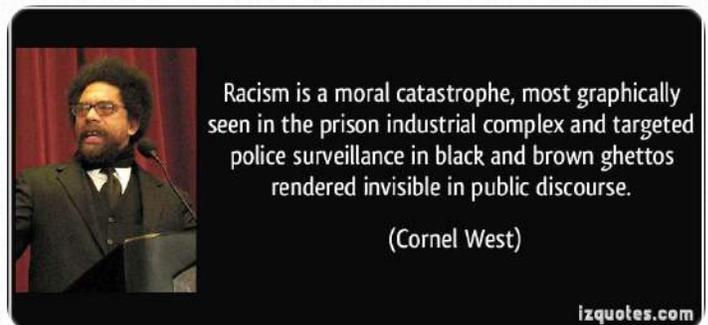
I would argue that the answer lies in focusing on developing good judgment and sup-

porting justice, rather than on enforcing police protocol. Police in Ferguson and elsewhere can learn from companies that use cameras for coaching and development instead of evaluation and punishment. For example, a U.S. trucking company has installed a DriveCam in each of its tractor cabs — recording what’s happening both on the road and in the driver’s seat — to improve fleet safety. Coaches review the footage with the individual drivers, who are receptive to the feedback because they know the videos won’t be used against them. (The footage is only shown to managers in situations where drivers willfully break the law.) Even at UPS, which has sensors in its trucks to track workers’ every move and reduce delivery times, the master agreement with the Teamsters prohibits management from using the data to discharge employees.

More organizations — including police departments — should explore ways of making employee surveillance constructive rather than punitive. Part of the challenge here, of course, is that law enforcement and government agencies are required (for good reason) to be transparent to the public. A certain amount of transparency ensures accountability. But unless it’s mitigated with zones of privacy — areas where workers can receive developmental coach-

ing, as the truck drivers do, without getting dinged for mistakes that generate learning — it may actually be counterproductive. If every choice, every little misstep, is recorded for all to see and to second-guess, people will quickly learn to play it safe in the worst sense. There aren’t many individuals who could work productively under the magnifying glass of an entire country of arbiters — the Hunger Games version of policing.

That said, in a country where smartphone penetration is now over 70%, and almost every smartphone has a video camera, another question is: how much police work is on video already?



The History of VIDEO SURVEILLANCE

1949 George Orwell's "1984" is published and the concept of video monitoring is popularized.



The first video tape recorder (VTR) captures live images from a television camera. 1951

1960 First reported use of temporary cameras in Trafalgar Square, London, England to monitor royalty.



First reports of law enforcement use of surveillance in the US. 1965

1966 NASA uses analog signals to map the surface of the moon, sending digital images to earth.

Patent issued for the first video home security system, utilizing television surveillance, to Marie Brown. 1969

1972 Texas Instruments patents first electronic camera that does not require film.



CCD (Charged Coupled Device) image sensor chip technology is invented. 1973

1980 Adoption of surveillance systems expands to businesses prone to theft or fraud.



Kodak scientists invent the world's first Megapixel sensor, capable of recording 1.4 million pixels. 1986

1992 The "nanny cam" is invented. The industry is inspired to develop ever-smaller, hi-res cameras.

The bombing of Bishopgate in London by the IRA leads to the construction of the "Ring of Steel". 1993

1996 First IP camera, the Neteye 200, released by Axis Communications.



DVRs hit the market and the second major wave of adoption of video surveillance occurs. 1998

2001 The World Trade Center attack changes the view on video surveillance from big-brother, to individual safety.

Royal Palm Middle School in Phoenix installs facial recognition video for tracking missing children. 2003

2005 The first IP camera with onboard video content analytics (VCA) is released by Intellio.



Chicago announces "Operation Virtual Shield" the most extensive city surveillance system in the country. 2006

2007 Estimates put more than 97% of all tele-communicated information being carried over the Internet.



The internet has enabled video surveillance to be used anywhere and be watched from anywhere. TODAY

Movie 2.1 Real Time with Bill Maher: New Rule - Spy vs. I



In his editorial New Rule, Bill Maher expresses concern that the growing surveillance state isn't just changing how we live, but human nature itself.

Different Cultures



The Mistake Companies Make When Marketing to Different Cultures

by Eddie Yoon

Smart consumer businesses are unanimous on the critical importance of “multicultural” growth opportunities. In the U.S., this is especially true now that Millennials — about 43% of whom are not white, according to Pew Research—make up a growing slice of most consumer markets. And it will be even more important for the generation that follows the Millennials; in 2011, non-Hispanic white births dipped under 50% for the first time.

Yet companies still cling to misconceptions about how to market to consumers of different racial and ethnic backgrounds, and their strategies aren't evolving as quickly as they should. The most significant misstep: Most multicultural strategies and analysis still view consumers mainly via demographics — are you ethnic or not — instead of really trying to understand demand.

Assuming that certain ethnic demographics form the primary market for certain products results in missed opportunities at best — and sometimes it's just flat-out wrong.

Consider a few examples. Suburban white men consume 80% of hip hop music, even though it's typically considered a genre aimed at young, urban black Americans. Misconceptions like this aren't limited to American markets. The Korean soap opera *My Love From the Star*, for example, has 200 times more views in China than Korea. This last fact was so alarming that China's highest governing bodies met in Beijing last year to discuss the reasons why Chinese viewers display such high demand for non-Chinese shows.

And this doesn't just apply to media. We've all heard that salsa is more popular

than ketchup (in terms of money spent, if not volume), but the people doing most of the buying probably aren't who you'd think. In previous posts, I've written about the concept of superconsumers — people who buy a disproportionate amount of a particular product. In the salsa category, Nielsen data shows that superconsumers are an important market — in fact, the top 10% of salsa consumers drive 50% percent of salsa sales. Interestingly, only 13% of salsa superconsumers are Hispanic. This means there are 5 million households buying lots of salsa who are white. Closer analysis shows they are more than just salsa superconsumers: These same white households also buy more than \$1 billion dollars of other Hispanic food products.

Latino households in the U.S. are estimated at 20 million. If there are 5 million white superconsumers of Latino cultural products, is it possible that the market is understated by 25%? If that's true, it's a huge opportunity.

For managers, the implications are clear:

First, we need to look beyond demographics. Most likely the markets for all products we think of as culturally specific are understated by a significant amount, which

should have big implications for resource allocation.

Second, culture is a choice and not a birth-right. Culture, at its core, is a shared passion for distinct common experience. Sports, music, food, fashion, and hobbies are all culture. The currency of culture is how and where you spend your time and money. Ethnicity is not an exclusive passport that lets you in or keeps you out of a culture.

Given that culture is a choice, everyone — the white majority included — can choose to opt-in. And while it is fine to share your culture, be careful not to superimpose it on others.

As a Korean American immigrant from Hawaii, I've felt a subtle yet strong pressure from "western business culture" to fake a passion for fine wine and French food, because that's what well-educated professionals in America are supposed to enjoy consuming. But I didn't grow up with these things, and I have other preferences. It wasn't until I saw this as culture and a choice that I felt comfortable saying I enjoyed fermented Kim Chi as much as a fine French reduction.

For those of us who are minorities, recognizing that culture is a choice means being

more inclusive. Authenticity is great, but adaptation can be great too. Everyone has the right to travel into new cultures should they choose to. And we as minorities should welcome them (and their dollars) in.

The best place to reach consumers who are multicultural in demand, not just demographics, may be in majority minority cities and markets. Just as superconsumers have a network effect on those around them, living near a large ethnic group has a big influence on what you watch and buy.

The bottom line is that a demographics-based view of culture is far less profitable than a demand-based view. As you create culturally specific products, TV programs, and marketing plans, make sure you're not leaving money on the table.



Movie 2.2 Last Week Tonight with John Oliver: Tobacco



Thanks to tobacco industry regulations and marketing restrictions in the US, smoking rates have dropped dramatically. John Oliver explains how tobacco companies are keeping their business strong overseas.

Pay More for Less



When Customers Will (Willingly) Pay More for Less

by Gardiner Morse

Last week, AT&T launched its GigaPower internet service in and around Kansas City with a curious type of tiered pricing: \$70 a month if you let the company track your web browsing — and \$99 if you don't. In effect, AT&T is taking its baseline product — internet service with tracking — and, for an additional \$29 a month, removing something.

This is an interesting twist on a standard product marketing strategy known as “versioning.” With versioning, a marketer takes a base product — say a DVD player — and offers the

plain vanilla unit for one price, one with bells and whistles for a higher amount, and a stripped down version at a discount. What marketers don't normally do is strip a product down and raise the price. You can imagine that this could backfire badly if consumers feel they're being taken for a ride. But done thoughtfully, charging a premium for a product that lacks certain components can deliver value to companies and customers alike. Simply identify an aspect of your base offering that some segment of customers will willingly ("willingly" is key) pay to avoid, and remove it. Let's call it a "product-minus" strategy.

Decaffeinated coffee is a case in point. The base offering has caffeine — and it's a key feature for many coffee drinkers. Although it's not expensive to decaffeinate coffee beans, it does add to the product's cost. Subtract the caffeine and raise the price enough to preserve your margin but not so much that you piss off customers. Starbucks, for example, sells Pike Place roast whole bean for \$11.95 a pound but charges a dollar more for the same product, minus the caffeine.

It's not hard to think of cases where companies already have a product-minus offering but don't charge more for it. Fragrance-free versions of "regular" prod-

ucts come to mind. Mennen Speed Stick antiperspirants and deodorants, for example, come in a profusion of scents — Regular, Musk, Irish Spring, Ocean Surf, Icy Blast and more — but the difficult-to-find unscented version is available at the same price as the "regular" and other scented versions.

Likewise, Amtrak, provides a "Quiet Car" on many of its corridor trains. The quiet car offers a library-like haven from the loud conversations, cell-phone calls, and other distractions found on the train's regular cars. It's a base offering (standard cars) minus an aspect of that offering — noise. Although Amtrak provides a product-minus service that a subset of passengers clearly values, quiet car seats are priced the same as seats on the other cars.

Removing components of a base offering and upping the price is a model similar to "reverse positioning" described by Harvard Business School's Youngme Moon. But unlike that model, the product-minus approach does not introduce new features — it simply subtracts existing ones and leaves it at that. Mennen and Amtrak could probably charge a higher price for their product-minus offerings. The key is to make the value exchange explicit. Consumers will launch a scorched-earth social me-

dia attack on any company they think is exploiting them, or they'll simply defect. A product-minus strategy has to clear a high bar for value because it can so easily look (and actually be) exploitative. Tim Wu, writing in the New Yorker, describes the airlines' strategy of making the base offering so degraded that customers will pay a fee to escape it. "In order for fees to work," he writes "there needs to be something worth paying to avoid." The soul-crushing fight for overhead space (now a standard aspect of the base offering) can be removed — for a price. Just check your luggage. But airline customers don't feel that they're getting value in this deal. They feel they're being bilked.

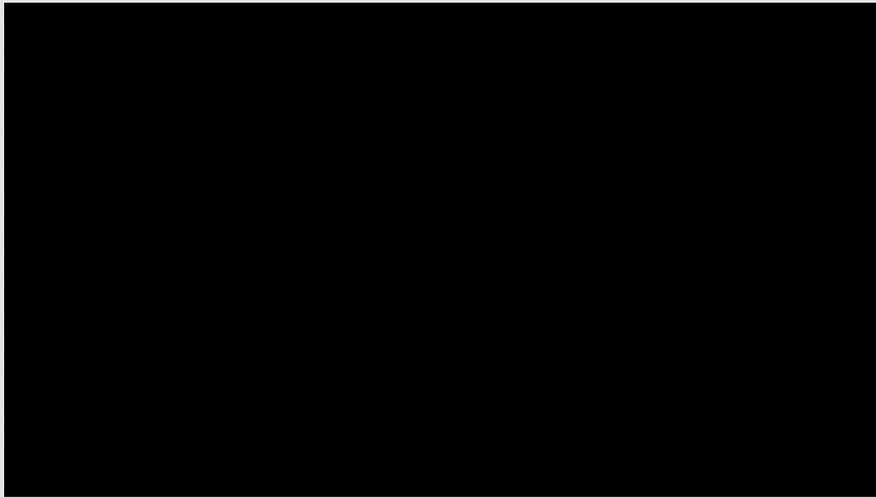
On the flip side, customers will willingly pay for a product-minus offering that they feel is fair and delivers real value. A really good cup of decaf coffee will be worth a few cents more to some customers — particularly if the supplier emphasizes the care and costs that go into the process. Making scarce scent-free Speed Stick easier to find, and highlighting the absence of potentially irritating additives, could justify a premium. And a quiet car whose norms are vigorously enforced by the train crew is surely worth a few bucks. Allow customers to reserve quiet-car seats and the value would climb further.

How AT&T customers respond to its pricey tracking opt-out policy is an experiment in progress. Since the company rolled out a similar plan in Austin a year ago most people choose the cheaper service says a company spokesperson, giving up privacy in order to save money. If consumers feel that's a fair deal, it could work. But if they come to feel that AT&T shouldn't be spying on them in the first place, and resent paying extra for their privacy, the company stands to lose more than a little revenue.

"It's clear price gouging... The oil companies are gouging the American citizenry aggressively, relentlessly, and without any sense of conscience whatsoever."

—Maurice Hinchey

Movie 2.3 Fair Trade: Every Purchase Matters



When you buy Fair Trade Certified goods you are making a choice that means quality products, improved lives and environmental protection.

Customer Segmentation



Let Your Customers Segment Themselves by What They're Willing to Pay

by Stefan Michel

The late Sir Colin Marshall, when he was CEO and chairman at British Airways (BA), knew that success in his business came down to superior value capture.

In a 1995 interview with HBR, he summed up the opportunity brilliantly:

“You’re always going to be faced with the fact that the great majority of people will buy on price. But even for a seeming commodity such as air travel, an element of the traveling public is willing to pay a slight premium for superior service In our case, we’re talking about an av-

erage of 5%. On our revenues of £5 billion, however, that 5% translates into an extra £250 million, or \$400 million, a year.”

If you're out to capture more value, one surefire tactic is to figure out a way to charge different prices to customers with different willingness-to-pay (WTP). Economists sometimes call this “price discrimination,” which sounds bad since discriminating against people is generally illegal, not to mention immoral. However, most of us encounter forms of price discrimination frequently that don't bother us. For example, who begrudges the discounts afforded to senior citizens and students? (Well, all right, I have occasionally felt a tinge as I see my retired neighbors driving much more expensive cars than mine.)

But charging different customers different prices for the same or a similar product or service is tricky for reasons having nothing to do with ethics. First: it is not easy to identify and group customers according to their willingness to pay. Second: if you have different prices in the market for a similar product, there is no preventing your well-heeled customers from taking advantage of the lower prices, too. Often, a marketer will try to scoop up sales from more price-sensitive shoppers (without cutting margins for its best customers) by launch-

ing a second, lower-end “fighter brand.” But customers are smart, and this often invites another serious problem – indeed called by one of the scariest terms in the management vocabulary: cannibalization.

There is an elegant solution to this problem, which I call “self-segmented fencing.” It consists of two parts: (1) Customers reveal their willingness-to-pay through self-segmenting, which is to say they themselves choose either the high- or low-price offer; and (2) Arbitrage is then prevented through effective fencing – that is, customers with high willingness-to-pay are fenced off from the low-price offer.

A fabulous example of this strategy is couponing. Grocers could simply offer the same attractive price to everyone, but instead they invite customers to present coupons to cashiers in order to get discounts on certain products during certain time periods. Why is this beautiful? Because many shoppers can't be bothered to search for, collect, and redeem coupons. Therefore, they effectively choose to pay full price.

Frugal shoppers and families living on small budgets are more likely to make the opposite choice, self-selecting to participate in the lower-price offer by using coupons and even shopping specifically for

products that are on sale. In this example, the coupon is the “fence” to identify the segments and discriminate the price.

Once you understand fencing, you see fences everywhere. Famous fashion and sporting goods brands, for example, fence premium buyers by putting 50 or 100 kilometers between their flagship stores in the city and the outlet strips where they sell previous and even current-season models for huge discounts.

And, back to Sir Colin’s business, fencing goes on left and right with airplane seats. It’s hardly a random occurrence when a roundtrip price comes up much cheaper and there is a Sunday between the outgoing and incoming flight. That fences off the majority of business travelers, even (or especially) if they fly economy class.

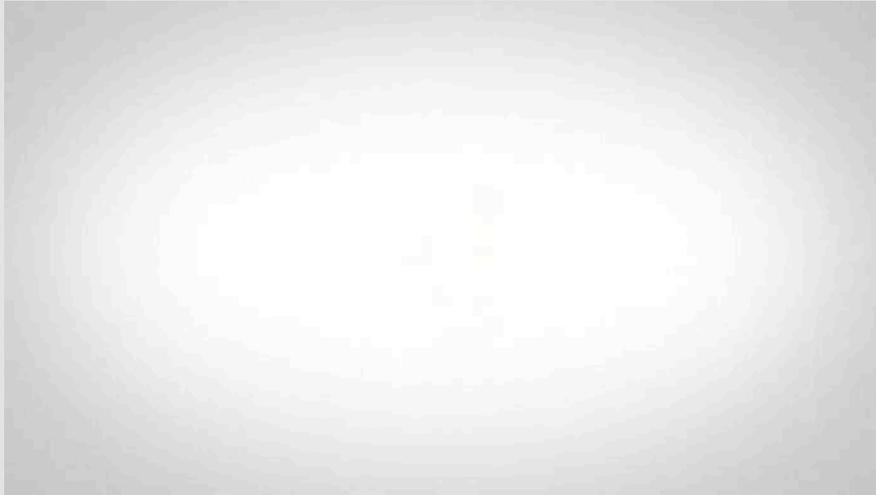
Another fencing mechanism is tickets with no flexibility for canceling and rescheduling flights. (If you are like some clever participants in seminars I’ve taught, the thought might be occurring to you that a fully refundable ticket is really a different offering than a nonrefundable ticket, and therefore, doesn’t constitute fencing but simply selling different products at different prices. It’s a valid point, but given that the price difference is sometimes over

400%, it is certainly not based on cost considerations. What the airlines want to do is fill underutilized planes with cheap tickets that are unattractive to high-paying customers.)

Once you begin to see the elegant workings of self-segmented fencing all around you, you might begin to see opportunities to use it in your business. If different customers are willing to pay different prices by choosing, for example, to pop into your flagship store or trek all the way out to the outlets, why not let them? However, because there is never a free lunch, this strategy requires a very good understanding of what customers really want and how segments differ from one another. The bigger picture here is, of course, that value-based pricing always requires a solid and sophisticated understanding of what customers value

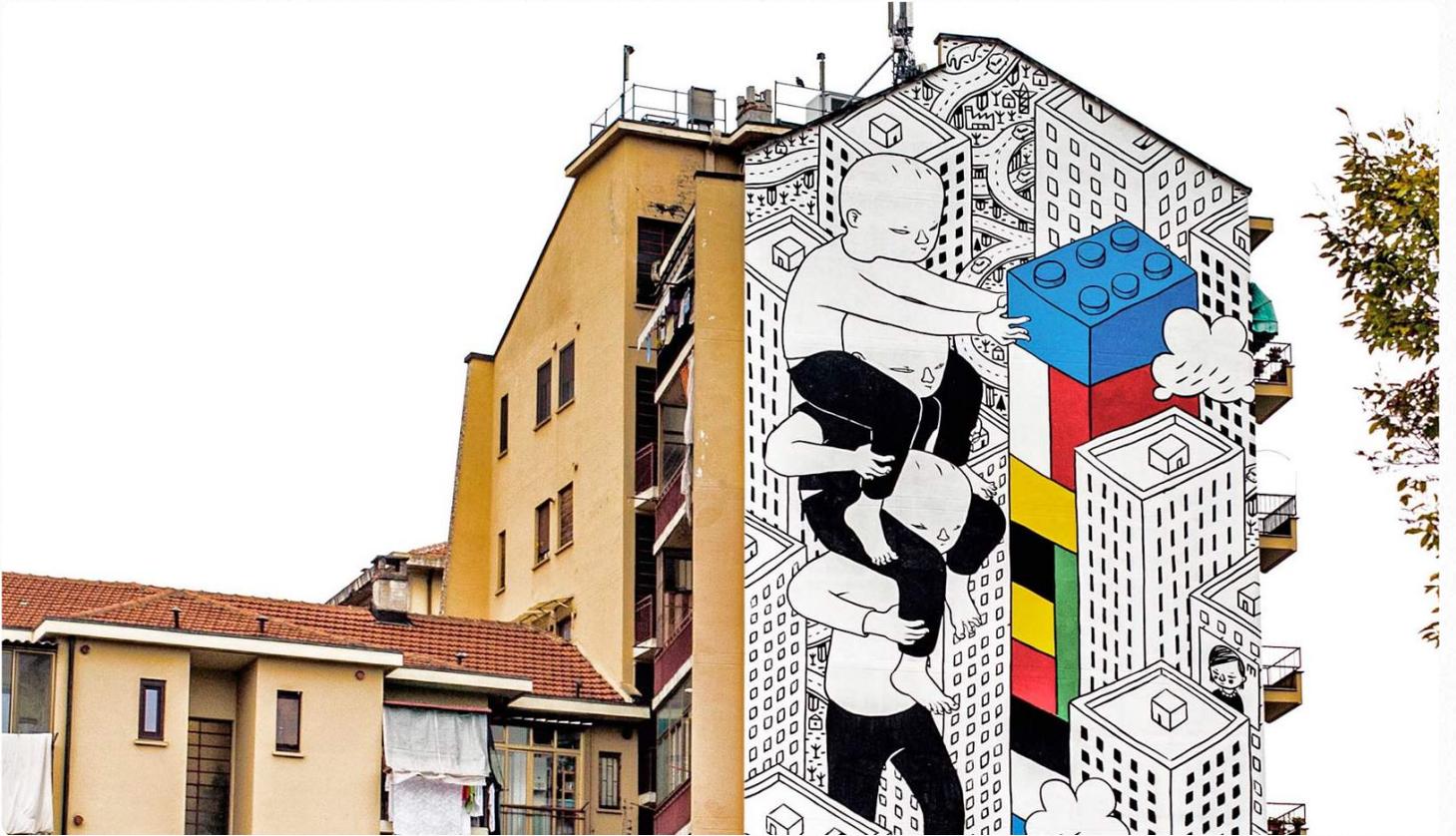
Finally, remember that fences are most powerful if they give even as they take away. Premium customers should enjoy at least one important attribute that the low-price-seekers don’t get. The grass should never look much greener on the other side of the fence.

Movie 2.4 The Mega Rich Make The Rich Look Poor



The 1% get a lot of scorn, but you might be surprised how they measure up to the super-rich 0.01%, or to the 80 wealthiest billionaires. AJ+ animates how global economic inequality is off the charts.

Decision Architects



Leaders as Decision Architects

by John Beshears and Francesca Gino

All employees, from CEOs to frontline workers, commit preventable mistakes: We underestimate how long it will take to finish a task, overlook or ignore information that reveals a flaw in our planning, or fail to take advantage of company benefits that are in our best interests. It's extraordinarily difficult to rewire the human brain to undo the patterns that lead to such mistakes. But there is another approach: Alter the environment in which decisions are made so that people are more likely to make choices that lead to good outcomes.

Leaders can do this by acting as architects. Drawing on our extensive research in the consulting, software, entertainment, health care, pharmaceutical, manufacturing, banking, retail, and food industries and on the basic principles of behavioral economics, we have developed an approach for structuring work to encourage good decision making.

Our approach consists of five basic steps: (1) Understand the systematic errors in decision making that can occur, (2) determine whether behavioral issues are at the heart of the poor decisions in question, (3) pinpoint the specific underlying causes, (4) redesign the decision-making context to mitigate the negative impacts of biases and inadequate motivation, and (5) rigorously test the solution. This process can be applied to a wide range of problems, from high employee turnover to missed deadlines to poor strategic decisions.

Understand How Decisions Are Made

For decades, behavioral decision researchers and psychologists have suggested that human beings have two modes of processing information and making decisions. The first, System 1 thinking, is automatic, instinctive, and emotional. It relies on mental

shortcuts that generate intuitive answers to problems as they arise. The second, System 2, is slow, logical, and deliberate. (Daniel Kahneman, winner of the Nobel prize in economics, popularized this terminology in his book *Thinking, Fast and Slow*.)

Each of the two modes of thinking has distinct advantages and disadvantages. In many cases, System 1 takes in information and reaches correct conclusions nearly effortlessly using intuition and rules of thumb. Of course, these shortcuts can lead us astray. So we rely on our methodical System 2 thinking to tell us when our intuition is wrong or our emotions have clouded our judgment, and to correct poor snap judgments. All too often, though, we allow our intuitions or emotions to go unchecked by analysis and deliberation, resulting in poor decisions. (For a look at how both modes of thinking can cause problems, see “Outsmart Your Own Biases.”)

Over-reliance on System 1 thinking has another negative effect: It leads to poor follow-through on plans, despite people’s best intentions and genuine desire to achieve their goals. That’s because System 1 tends to focus on concrete, immediate payoffs, distracting us from the abstract, long-term consequences of our de-

cisions. For instance, employees know they should save for retirement, yet they rarely get around to signing up for their 401(k) plans. (A survey conducted in 2014 by TIAA-CREF found that Americans devote more time to choosing a TV or the location for a birthday dinner than to setting up a retirement account.)

We do not mean to suggest that System 1 should be entirely suppressed in order to promote sound decisions. The intuitive reactions of System 1 serve as important inputs in the decision-making process. For example, if an investment opportunity triggers a fearful emotional response, the decision maker should carefully consider whether the investment is too risky. Using System 2, the emotional response should be weighed against other factors that may be underappreciated by System 1—such as the long-term strategic value of the investment.

Engaging System 2 requires exerting cognitive effort, which is a scarce resource; there's simply not enough of it to govern all the decisions we're called on to make. As the cognitive energy needed to exercise System 2 is depleted, problems of bias and inadequate motivation may arise.

Define the Problem

Not every business problem should be tackled using behavioral economics tools. So before applying them, managers should determine whether:

Human behavior is at the core of the problem.

Certain problems—employee burnout, for instance—can be resolved by changing the way people perceive and respond to a situation. Others are fundamentally technological in nature—for example, the lack of scientific knowledge needed to create a new drug for treating a disease. Those problems are unlikely to be solved by applying behavioral economics tools unless addressing them involves changing human behavior (for example, encouraging teams of scientists to share their discoveries in order to develop the drug).

People are acting in ways contrary to their own best interests.

Most behavioral economics tools gently guide people to different choices. They will be most effective in situations where they encourage people to switch from choices

that are contrary to their interests to those better aligned with them.

The problem can be narrowly defined.

Sometimes all-encompassing change is required to shake up an organization. But in many instances, complex organizational problems can be broken down into smaller, more manageable pieces.

Consider a large U.S. retailer's efforts to rein in health care costs without adversely impacting employees' health, which one of us (John) studied in collaboration with James Choi, David Laibson, and Brigitte Madrian. The company identified one piece of the problem: the high cost of the subsidies it paid for employees' prescription drugs. Working with the drug plan administrator, the retailer narrowed the problem further and focused on encouraging employees to switch from picking up their prescriptions at pharmacies to having them mailed to their homes. That shift would save both the company and employees money, because prescriptions can be processed more cheaply at a large distribution facility.

Behavioral economics techniques were appropriate in this case (we'll describe later which ones the retailer used) because the problem was narrowly defined and in-

involved employees' not acting in their own best interests: Pharmacy pickup was less convenient than home delivery, more expensive, riskier (the error rate in filling mail-order prescriptions is lower), and made employees more prone to lapses in their treatment plan.

Diagnose Underlying Causes

There are two main causes of poor decision making: insufficient motivation and cognitive biases. To determine which is causing the problematic behavior, companies should ask two questions: First, is the problem caused by people's failure to take any action at all? If so, the cause is a lack of motivation. Second, are people taking action but in a way that introduces systematic errors into the decision-making process? If so, the problem is rooted in cognitive biases. These categories are not mutually exclusive, but recognizing the distinction between them is a useful starting point.

Because problems of motivation and cognition often occur when System 2 thinking fails to kick in, the next step is to ascertain which aspect of the situation caused System 1 to weigh the trade-offs among available options incorrectly and what pre-

vented System 2 from engaging and correcting the mistake. Common sense can go a long way in diagnosing underlying causes. Put yourself in the shoes of the person making the decision (or failing to make a decision) and ask, “What would I do in this situation and why?”

At the retailer that wished to reduce health care costs, lack of motivation was preventing employees from switching to home delivery for prescriptions. When management asked them directly about the advantages and disadvantages of home delivery, many expressed a preference for it—yet only 6% of employees who regularly took maintenance medications (such as statins for high cholesterol) got around to signing up for it. Simple inertia kept them from picking up the phone, enrolling online, or mailing in a form.

Wipro BPO, a division of the business-process outsourcing firm Wipro, faced a different kind of motivation problem. Many of its employees were burning out and quitting after only a few months on the job. To find out why, one of us (Francesca), together with Daniel Cable and Bradley Staats, interviewed employees and observed their behavior. The problem lay with the division’s onboarding process, which was focused on indoctrinating new employ-

ees into the company’s culture. The training failed to build an emotional bond between new hires and the organization and caused them to view the relationship as transactional rather than personal. Because they were disengaged and demotivated, the stresses of the job—dealing with frustrated customers, the rigid scripts they had to use, and so on—got to them, causing them to leave the company just a few months after joining.

Design the Solution

Once they’ve diagnosed the underlying source of a problem, companies can begin to design a solution. In particular, managers can use choice architecture and nudges, concepts introduced by Richard Thaler and Cass Sunstein in their 2008 book *Nudge: Improving Decisions About Health, Wealth, and Happiness*. The goal of choice architecture is to improve people’s decisions by carefully structuring how information and options are presented to them. In this fashion, companies can nudge employees in a certain direction without taking away their freedom to make decisions for themselves.

Public-policy makers are increasingly using choice architecture tools to nudge peo-

ple toward better decisions on issues such as tax payments, medical treatments, consumer health and wellness, and climate-change mitigation. And businesses are starting to follow suit. For example, Google implemented choice architecture in its cafeterias in an effort to get employees to adopt more healthful eating habits. As Googlers reach for a plate, they encounter a sign informing them that people who use bigger plates tend to eat more than those who use smaller plates. Thanks to this simple change, the proportion of people using small plates has increased by 50%.

Adjustments to the choice environment can drive big improvements at low or even no cost. They include simply varying the order in which alternatives are presented, altering the wording used to describe them, adjusting the process by which they are selected, and carefully choosing defaults.

Here's a classic example: For many years, U.S. companies offered opt-in retirement savings plans. Employees who did not actively sign up were not enrolled. More recently, companies have been automatically enrolling their employees. Under this opt-out system, employees have a fraction of each paycheck (say, 6%) contributed to the plan unless they actively choose other-

wise. A collection of studies by one of us (John), with James Choi, David Laibson, and Brigitte Madrian, found that on average only half the workers at companies with opt-in systems join their plan by the time they've been employed at the firm for one year. Automatic enrollment generates participation rates of 90% or higher. In changing the default, firms altered neither the menu of options available nor the financial incentives for enrollment. They simply changed the consequences of refraining from actively indicating one's preferences.

Choice architecture is more effective in improving employees' decisions than widely used approaches such as educating individuals or offering monetary incentives (see "When Economic Incentives Backfire," HBR, March 2009). The reason: Those methods rely on individuals' acting in their self-interest, which people often fail to do. They also attempt to fundamentally change the way employees process information and make decisions, which is difficult to accomplish. The following levers can help companies take advantage of the enormous potential of choice architecture to improve decision making.

The emotions and biases that accompany System 1 thinking often wreak havoc, but they can be tapped for productive purposes. Executives can trigger System 1 in several ways:

Arouse emotions.

Let's return to the Wipro BPO example. In a bid to reduce the high turnover at its call centers, the organization—in collaboration with one of us (Francesca), Dan Cable, and Brad Staats—conducted an experiment aimed at strengthening employees' emotional connection with the organization.

It divided new hires into two groups: In one, the employees were asked on the first day of orientation to think about their strengths and how they could apply them in their new jobs. In the control group, the employees were not given an opportunity for self-reflection.

The approach, which Wipro BPO adopted, helped new employees to feel they could be themselves at work. The resulting emotional bond with the organization led not only to lower employee turnover but also to higher performance as measured by customer satisfaction. We have achieved similar results in other organizations.

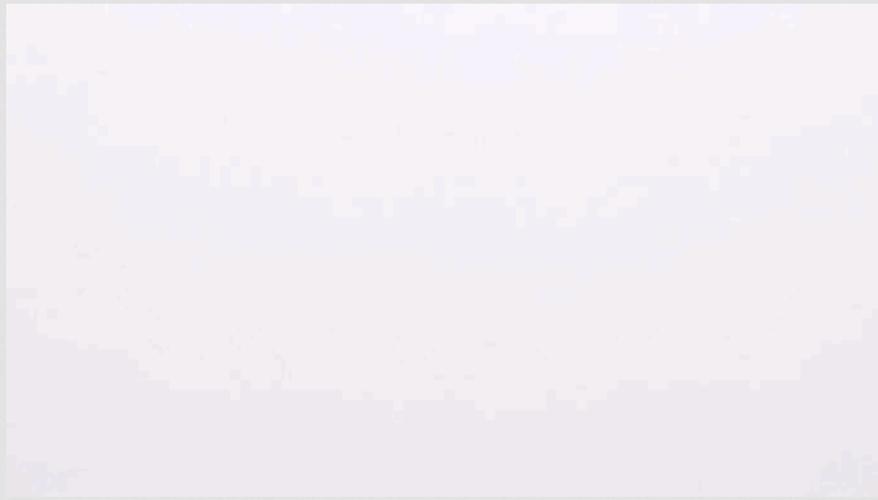
Harness biases.

Executives can also use cognitive biases to their advantage. For example, research shows that people feel twice as bad about incurring a loss as they feel good about receiving a gain of the same amount (a bias known as loss aversion) and that people pay extra attention to vivid information and overlook less flashy data (known as vividness bias). Work conducted by the Behavioral Insights Team (BIT), an organization set up to apply nudges to improve government services, demonstrates this. BIT collaborated with the UK Driver and Vehicle Licensing Agency to reduce the number of people delinquent in paying their vehicle taxes.

To trigger System 1 thinking, a new notification letter was written in plain English along the lines of “Pay your tax or lose your car”—a departure from the complex legal language used in the original letter. To make the demand more personal, some letters included a photo of the car in question. The rewritten letters alone and those with the photo increased the number of people who paid their taxes by 6% and 20%, respectively.

Organizations can also highlight the downside of failing to take action to motivate

Movie 2.5 Captivate Your Audience with Scribe Videos



What's the best way to engage an audience - hand-drawn scribe video or traditional talking heads? We've done the research, here are our findings.

weak performers. For instance, it's well known that having a high-quality pipeline of new sales talent is an effective way to get underperforming salespeople to improve their performance.

This so-called "man on the bench effect" makes vivid the possibility that they could lose their jobs or bonuses, motivating them to work harder. Studies have found that salespeople in districts with a bench player perform about 5% better than those in districts without one. In the long run, the overall increase in revenue outweighs the costs associated with hiring bench players.

Simplify the process.

Organizational processes often involve unnecessary steps that lower motivation or increase the potential for cognitive biases. By streamlining processes, executives can reduce such problems. At a health care center that one of us (Francesca) worked with, the doctors had to use different IT systems across departments to input patient information, which was then used to make decisions about patient care. The hospital introduced a centralized system that allows a doctor to see all of a patient's historical and personal information, regardless of what department the patient visited

in the past. As a result, the doctors are much more motivated to keep the information up-to-date and to use the system.

Engage System 2.

Executives have a range of options they can use to encourage greater deliberation and analysis in decision making.

Use joint, rather than separate, evaluations.

Evaluating decision alternatives simultaneously, rather than sequentially, reduces bias. For instance, a manager who is evaluating job candidates can avoid making biased assessments of their likely future performance by comparing them against one another rather than evaluating them separately. That's because joint evaluation nudges employers to focus more on employees' past performance and less on gender and implicit stereotypes, as research Iris Bohnet, Alexandra van Geen, and Max Bazerman shows. Managers often use joint evaluations in initial hiring decisions, especially at lower levels, but they rarely take advantage of this approach when considering employees for job assignments and promotions. It can be helpful in many situations, such as choosing

which products to advance in the development process, evaluating investment alternatives, and setting strategic direction.

Create opportunities for reflection.

Taking time out of our busy days to just think may sound costly, but it is an effective way to engage System 2. Let's return to the example of the retailer that wanted its employees to use home delivery for their medical prescriptions. The firm told employees that in order to take advantage of their prescription drug benefit, they had to make an active choice (by phone, web, or mail) between home delivery and pick-up at a pharmacy. In doing so, the company forced employees to reflect and make a decision. When the active choice program was introduced, the percentage of employees taking long-term medications who opted for home delivery increased more than sixfold. This generated a savings of approximately \$1 million, which was split roughly equally between employees and the retailer.

Encouraging reflection can also help in training and employee development. One of us (Francesca) conducted an experiment at a Bangalore call center with colleagues Giada Di Stefano, Brad Staats, and Gary Pisano. Three groups of employ-

ees were given the same technical training with a couple of key differences. Workers in one group spent the last 15 minutes of certain days reflecting (in writing) on what they'd learned. Employees in another group did the same, and then spent an additional five minutes explaining their notes to a fellow trainee. People in the control group just kept working at the end of the day. In a test given after the training program, employees in the first and second groups performed 22.8% and 25% better, respectively, than those in the control group, despite having spent less time working. We found that reflection had a similarly beneficial impact on employees' on-the-job performance.

Use planning prompts.

People often resolve to act in a particular way but forget or fail to follow through. Simple prompts can help employees stick to the plan. In a study one of us (John) conducted with Katherine Milkman, James Choi, David Laibson, and Brigitte Madrian, we mailed letters to the employees of a midwestern utility about the company's flu shot clinics, describing the benefits of flu shots as well as the times and clinic locations. Some of the letters included blank spaces for recipients to fill in with the time they would go to a clinic. Merely prompt-

ing them to form plans by jotting down a time, even though they were not actually scheduling an appointment, caused them to briefly engage System 2, increasing the number of employees who got the shots by 13%.

A similar technique can be used to improve team performance. Many team efforts, particularly those that fail to meet objectives, end with a vow to “do better next time.” Unfortunately, such vague promises do nothing to prevent teams from making the same mistakes again. A leader can help teams follow through on resolutions by having members create clear maps for reaching their goals that detail the “when” and the “how.”

Inspire broader thinking.

We commonly approach problems by asking ourselves, “What should I do?” Asking “What could I do?” helps us recognize alternatives to the choice we are facing, thus reducing bias in the evaluation of the problem and in the final decision. But companies generally fail to broaden their perspectives in this way. In an analysis of more than 160 decisions made by businesses over the years, management scholar Paul Nutt found that 71% of them had been framed in terms of whether or not an or-

ganization or a person should take a certain course of action. That kind of framing often leads decision makers to consider only one alternative: the course of action being discussed. A simple change in language—using “could” rather than “should”—helps us think past the black and white and consider the shades of gray. It also allows us to consider solutions to ethical dilemmas that move beyond selecting one option over another.

Increase accountability.

Holding individuals accountable for their judgments and actions increases the likelihood that they will be vigilant about eliminating bias from their decision making. For example, a study of federal government data on 708 private-sector companies by Alexandra Kalev and colleagues found that efforts to reduce bias through diversity training and evaluations were the least effective ways to increase the proportion of women in management. Establishing clear responsibility for diversity (by creating diversity committees and staff positions, for example) was more effective and led to increases in the number of women in management positions.

Encourage the consideration of disconfirming evidence.

When we think that a particular course of action is correct, our tendency is to interpret any available information as supporting that thinking. This is known as confirmation bias. Furthermore, once we invest resources in a course of action, we tend to justify those investments by continuing down that path, even when new information suggests that doing so is unwise—a phenomenon known as escalation of commitment. Together, these biases lead decision makers to discount contradictory evidence and to ignore the possibility of superior alternatives. Organizations can solve this problem by actively encouraging counterfactual thinking (asking “How might events have unfolded had we taken a different course of action?”) and making sure that employees consider disconfirming evidence. In situations where a group is making decisions, the leader might assign one member to ask the tough questions and look for evidence that reveals flaws in the planned course of action. (For more details on how to do this effectively, see “Making Dumb Groups Smarter,” HBR, November 2014.)

Alternatively, the leader may ask function heads to rotate their roles to get a fresh perspective, as auditors at accounting firms, credit officers at banks, and board members serving on committees fre-

quently do. People who are in charge of one domain for a long time tend to irrationally escalate their commitment to the established way of doing things; newcomers are more likely to notice evidence that a different course of action would be wiser. Furthermore, the knowledge that a rotation will bring in a new set of eyes to scrutinize past decisions encourages people to make more-disciplined choices.

Use reminders.

Reminders are an effective way to engage System 2, helping us avoid the biases that come from relying too much on System 1. Reminders also serve to highlight goals we want to accomplish (for instance, finishing a presentation on time), thus increasing our motivation. One of us (Francesca) and colleagues collaborated with an automobile insurance company to use reminders to reduce customer dishonesty. As part of the study, the company sent 13,488 customers a form that asked them to report how many miles they had driven that year as indicated on their cars’ odometers. The lower the reported mileage, the lower the insurance premium—tempting customers to underreport how much they had driven. Half the customers were asked to sign a statement at the bottom of the form that they were being truthful. The other half

were asked to sign the same statement at the top of the form. Customers who signed at the top reported an average of 2,400 miles more than those who signed at the bottom, which suggested that the reason for the difference was not driving habits but the reminder before they filled out the form of a goal they care about (being honest).

Ask “What could I do?” rather than “What should I do?”

Consider another example of how reminders trigger System 2 thinking. In his book *The Checklist Manifesto*, surgeon and journalist Atul Gawande describes how he introduced a surgery checklist to eight hospitals in 2008. Surgeons, nurses, and other personnel systematically went through the checklist before performing each surgery to remind themselves of the steps involved in the procedure. One study that measured the checklist’s effectiveness found that the new practice resulted in 36% fewer major complications and 47% fewer deaths.

Bypass both systems.

The third approach that organizations can use to avoid biases and lack of motivation is to create processes that automatically skirt System 1 and System 2.

Set the default.

Changing the default for standard processes—automatically enrolling employees in a retirement plan, for instance—can have a powerful impact on ultimate outcomes, especially when decisions are complex or difficult. At Motorola, for example, employees who have previously worked on one product team may not join another team working on a similar product. This rule is set as the default and allows new teams to develop their own opinions without being affected by other teams.

Build in automatic adjustments.

Another effective way to counter cognitive biases is to build in adjustments that account for poor System 1 and System 2 thinking. Managers at Microsoft, for example, figured out that programmers vastly underestimate how long it will take them to complete tasks—a common cognitive bias called the planning fallacy. Microsoft’s solution: Add buffer time to projects. Managers examined historical data on project delays and came up with guidelines. Timelines for updates to applications such as Excel and Word, for example, receive a buffer equal to 30% of the schedule. For more complex projects, such as operating systems, timelines get a 50% buffer.

How to Choose the Right Lever

We recommend that companies first consider bypassing both systems so that the desired outcome is implemented automatically. Because this strategy requires no effort on the part of decision makers, it is the most powerful way to influence results.

For many reasons, however, this approach may not be feasible or desirable. It may be impossible or prohibitively costly to automate the process in question. The targeted individuals may resent having the choice made for them. Or a “one size fits all” approach may be inappropriate.

Consider the case of a bank that must decide whether to renew loans to small businesses. It could automate the renewal decision using information from the businesses’ balance sheets and cash flows. However, the bank may make better lending decisions if loan officers familiar with the businesses have discretion over whether to renew loans. Even if two businesses appear identical in the bank’s computer systems, the loan officers may be aware of other factors—for instance, changes in the management team—that make one a higher risk than the other. Of course, giving loan officers discretion introduces biases into the decision-making

process—a potential cost that must be weighed.

It’s hard to change the way people’s brains are wired. So change the context for decisions instead.

If bypassing both systems is not an option, companies must choose whether to trigger System 1 or engage System 2. The deliberative approach of System 2 can override mistakes caused by System 1, but cognitive effort is a limited resource. Using it for one decision means that it may not be available for others, and this cost must be taken into account. For example, in a study of fundraising efforts conducted at a U.S. public university by one of us (Francesca) with Adam Grant, the performance of fundraisers improved significantly when the director thanked them for their work.

This intervention strengthened their feelings of social worth by triggering System 1. One can imagine interventions that would engage System 2—for instance, asking the fundraisers to take more time to prepare for each call or increasing their accountability for results. However, such interventions might drain their energy and cognitive resources, diminishing their effort and persistence.

Test the Solution

The final step is to rigorously test the proposed solution to determine whether it will accomplish its objectives. Testing can help managers avoid costly mistakes and provide insights that lead to even better solutions. Tests should have three key elements:

Identify the desired outcome.

The outcome should be specific and measurable. In the case of the retailer that wanted employees to use home delivery for prescriptions, it was clear: increasing the percentage of employees who signed up for home delivery.

Identify possible solutions and focus on one.

If you alter too many things at once, it will be difficult to determine which piece of a complex change produced the desired effect. To avoid this problem, the retailer rolled out its “active choice” prescription program without simultaneously implementing other changes.

Introduce the change in some areas of the organization (the “treatment group”) and not others (the “control group”).

If possible, divide the individuals, teams, or other entities randomly into two groups.

Randomization helps ensure that any differences in outcome between the two groups can be attributed to the change. When such simple randomization is not feasible for reasons of logistics, ethics, cost, or sample size, more-sophisticated analytical techniques can be employed. (For a more detailed explanation of how to conduct rigorous business experiments, see “The Discipline of Business Experimentation,” HBR, December 2014.)

Insidious biases and insufficient motivation are often the main drivers behind significant organizational problems. But it’s extremely difficult to change the way people’s brains are wired. Instead change the environment in which people make decisions. Through some simple adjustments, executives can produce powerful benefits for their employees and organizations.

Behavior, cognitive, and other personal factors, and environmental influences all operate interactively as determinants of each other.

QUOTEHD.COM

Albert Bandura
Canadian

How to Use Choice Architecture to Improve Decisions

Executives can mitigate the effects of bias on decision making and motivate employees and customers to make choices that are in both the organization's and their own best interests. Here's how.

1. UNDERSTAND HOW DECISIONS ARE MADE

Human beings have two modes of processing information and making decisions:

- System 1 is automatic, instinctive, and emotional.
- System 2 is slow, logical, and deliberate.

2. DEFINE THE PROBLEM

Behavioral economics tools are most effective when:

- Human behavior is at the core of the problem.
- People are not acting in their own best interests.
- The problem can be narrowly defined.

3. DIAGNOSE THE UNDERLYING CAUSES

To determine whether poor decision making is a result of insufficient motivation or of cognitive biases, ask two questions:

- Is the problem caused by people's failure to take any action at all?
- Do people take action, but in a way that introduces systematic errors into the decision-making process?

4. DESIGN THE SOLUTION

Use one of three levers:

- Trigger System 1 thinking by introducing changes that arouse emotions, harness bias, or simplify processes.
- Engage System 2 thinking by using joint evaluations, creating opportunities for reflection, increasing accountability, and introducing reminders and planning prompts.
- Bypass both systems by setting defaults and building in automatic adjustments.

5. TEST THE SOLUTION

Rigorously test the proposed solution to avoid costly mistakes:

- Identify a target outcome that is specific and measurable.
- Identify a range of possible solutions and then focus on one.
- Introduce the change in some areas of the organization (the "treatment group") and not others (the "control group").

SOURCE JOHN BESHEARS AND FRANCESCA GINO
FROM "LEADERS AS DECISION ARCHITECTS," MAY 2015

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Office Pet Peeves

LinkedIn examines what's driving professionals up the cubicle wall...

TOP 5 GLOBAL PET PEEVES



- 1 — People not taking ownership for their actions
- 2 — Constant complainers
- 3 — Dirty common areas
- 4 — Starting meetings late or going long
- 5 — People who don't respond to emails

PEEVES THAT STAND OUT BY COUNTRY



MOST PEEVED COUNTRY



INDIA

On average, Indian professionals selected **19 out of 38** pet peeves listed on the survey.

LEAST PEEVED COUNTRY



ITALY

Italian professionals selected only **15 of 38** pet peeves listed on the survey.



Results gathered from a survey of randomly selected LinkedIn users in their respective countries

Movie 2.6 The Good Office

The Good Office

Good offices are rare and beautiful creations: they have good leadership, meaningful purpose, honest communication, well-directed stress and not many 'creativity' days.

Decision Traps



The Hidden Traps in Decision Making

by John S. Hammond, Ralph L. Keeney and Howard Raiffa

Before deciding on a course of action, prudent managers evaluate the situation confronting them. Unfortunately, some managers are cautious to a fault—taking costly steps to defend against unlikely outcomes. Others are overconfident—underestimating the range of potential outcomes. And still others are highly impressionable—allowing memorable events in the past to dictate their view of what might be possible now.

These are just three of the well-documented psychological traps that afflict most managers at some point, assert authors John S. Hammond, Ralph L. Keeney, and Howard Raiffa in their 1998 article. Still more pitfalls distort reasoning ability or cater to our own biases. Examples of the latter include the tendencies to stick with the status quo, to look for evidence confirming one's preferences, and to throw good money after bad because it's hard to admit making a mistake.

Techniques exist to overcome each one of these problems. For instance, since the way a problem is posed can influence how you think about it, try to reframe the question in various ways and ask yourself how your thinking might change for each version. Even if we can't eradicate the distortions ingrained in the way our minds work, we can build tests like this into our decision-making processes to improve the quality of the choices we make.

Making decisions is the most important job of any executive. It's also the toughest and the riskiest. Bad decisions can damage a business and a career, sometimes irreparably. So where do bad decisions come from? In many cases, they can be traced back to the way the decisions were made—the alternatives were not clearly de-

finied, the right information was not collected, the costs and benefits were not accurately weighed. But sometimes the fault lies not in the decision-making process but rather in the mind of the decision maker. The way the human brain works can sabotage our decisions.

Researchers have been studying the way our minds function in making decisions for half a century. This research, in the laboratory and in the field, has revealed that we use unconscious routines to cope with the complexity inherent in most decisions. These routines, known as heuristics, serve us well in most situations. In judging distance, for example, our minds frequently rely on a heuristic that equates clarity with proximity. The clearer an object appears, the closer we judge it to be. The fuzzier it appears, the farther away we assume it must be. This simple mental shortcut helps us to make the continuous stream of distance judgments required to navigate the world.

Yet, like most heuristics, it is not foolproof. On days that are hazier than normal, our eyes will tend to trick our minds into thinking that things are more distant than they actually are. Because the resulting distortion poses few dangers for most of us, we can safely ignore it. For airline pilots,

though, the distortion can be catastrophic. That's why pilots are trained to use objective measures of distance in addition to their vision.

Researchers have identified a whole series of such flaws in the way we think in making decisions. Some, like the heuristic for clarity, are sensory misperceptions. Others take the form of biases. Others appear simply as irrational anomalies in our thinking. What makes all these traps so dangerous is their invisibility. Because they are hard-wired into our thinking process, we fail to recognize them—even as we fall right into them.

For executives, whose success hinges on the many day-to-day decisions they make or approve, the psychological traps are especially dangerous. They can undermine everything from new-product development to acquisition and divestiture strategy to succession planning. While no one can rid his or her mind of these ingrained flaws, anyone can follow the lead of airline pilots and learn to understand the traps and compensate for them.

In this article, we examine a number of well-documented psychological traps that are particularly likely to undermine business decisions. In addition to reviewing the

causes and manifestations of these traps, we offer some specific ways managers can guard against them. It's important to remember, though, that the best defense is always awareness. Executives who attempt to familiarize themselves with these traps and the diverse forms they take will be better able to ensure that the decisions they make are sound and that the recommendations proposed by subordinates or associates are reliable.

The Anchoring Trap

- How would you answer these two questions?
- Is the population of Turkey greater than 35 million?
- What's your best estimate of Turkey's population?

If you're like most people, the figure of 35 million cited in the first question (a figure we chose arbitrarily) influenced your answer to the second question. Over the years, we've posed those questions to many groups of people. In half the cases, we used 35 million in the first question; in the other half, we used 100 million. Without fail, the answers to the second ques-

tion increase by many millions when the larger figure is used in the first question. This simple test illustrates the common and often pernicious mental phenomenon known as anchoring. When considering a decision, the mind gives disproportionate weight to the first information it receives. Initial impressions, estimates, or data anchor subsequent thoughts and judgments. more

Anchors take many guises. They can be as simple and seemingly innocuous as a comment offered by a colleague or a statistic appearing in the morning newspaper. They can be as insidious as a stereotype about a person's skin color, accent, or dress. In business, one of the most common types of anchors is a past event or trend. A marketer attempting to project the sales of a product for the coming year often begins by looking at the sales volumes for past years. The old numbers become anchors, which the forecaster then adjusts based on other factors.

This approach, while it may lead to a reasonably accurate estimate, tends to give too much weight to past events and not enough weight to other factors. In situations characterized by rapid changes in the marketplace, historical anchors can

lead to poor forecasts and, in turn, misguided choices.

Because anchors can establish the terms on which a decision will be made, they are often used as a bargaining tactic by savvy negotiators. Consider the experience of a large consulting firm that was searching for new office space in San Francisco. Working with a commercial real-estate broker, the firm's partners identified a building that met all their criteria, and they set up a meeting with the building's owners.

The owners opened the meeting by laying out the terms of a proposed contract: a ten-year lease; an initial monthly price of \$2.50 per square foot; annual price increases at the prevailing inflation rate; all interior improvements to be the tenant's responsibility; an option for the tenant to extend the lease for ten additional years under the same terms.

Although the price was at the high end of current market rates, the consultants made a relatively modest counteroffer. They proposed an initial price in the midrange of market rates and asked the owners to share in the renovation expenses, but they accepted all the other terms. The consultants could have been much more aggressive and creative in their counterpropo-

al—reducing the initial price to the low end of market rates, adjusting rates biennially rather than annually, putting a cap on the increases, defining different terms for extending the lease, and so forth—but their thinking was guided by the owners' initial proposal. The consultants had fallen into the anchoring trap, and as a result, they ended up paying a lot more for the space than they had to.

What can you do about it?

The effect of anchors in decision making has been documented in thousands of experiments. Anchors influence the decisions not only of managers, but also of accountants and engineers, bankers and lawyers, consultants and stock analysts. No one can avoid their influence; they're just too widespread. But managers who are aware of the dangers of anchors can reduce their impact by using the following techniques:

- Always view a problem from different perspectives. Try using alternative starting points and approaches rather than sticking with the first line of thought that occurs to you.
- Think about the problem on your own before consulting others to avoid becoming anchored by their ideas.

- Be open-minded. Seek information and opinions from a variety of people to widen your frame of reference and to push your mind in fresh directions.
- Be careful to avoid anchoring your advisers, consultants, and others from whom you solicit information and counsel. Tell them as little as possible about your own ideas, estimates, and tentative decisions. If you reveal too much, your own preconceptions may simply come back to you.
- Be particularly wary of anchors in negotiations. Think through your position before any negotiation begins in order to avoid being anchored by the other party's initial proposal. At the same time, look for opportunities to use anchors to your own advantage—if you're the seller, for example, suggest a high, but defensible, price as an opening gambit.

The Status-Quo Trap

We all like to believe that we make decisions rationally and objectively. But the fact is, we all carry biases, and those biases influence the choices we make. Decision makers display, for example, a strong bias toward alternatives that perpetuate the status quo. On a broad scale, we can

see this tendency whenever a radically new product is introduced. The first automobiles, revealingly called “horseless carriages,” looked very much like the buggies they replaced. The first “electronic newspapers” appearing on the World Wide Web looked very much like their print precursors.

Decision makers display a strong bias toward alternatives that perpetuate the status quo.

On a more familiar level, you may have succumbed to this bias in your personal financial decisions. People sometimes, for example, inherit shares of stock that they would never have bought themselves. Although it would be a straightforward, inexpensive proposition to sell those shares and put the money into a different investment, a surprising number of people don't sell. They find the status quo comfortable, and they avoid taking action that would upset it. “Maybe I'll rethink it later,” they say. But “later” is usually never.

The source of the status-quo trap lies deep within our psyches, in our desire to protect our egos from damage. Breaking from the status quo means taking action, and when we take action, we take responsibility, thus opening ourselves to criticism

and to regret. Not surprisingly, we naturally look for reasons to do nothing. Sticking with the status quo represents, in most cases, the safer course because it puts us at less psychological risk.

Many experiments have shown the magnetic attraction of the status quo. In one, a group of people were randomly given one of two gifts of approximately the same value—half received a mug, the other half a Swiss chocolate bar. They were then told that they could easily exchange the gift they received for the other gift. While you might expect that about half would have wanted to make the exchange, only one in ten actually did. The status quo exerted its power even though it had been arbitrarily established only minutes before.

Other experiments have shown that the more choices you are given, the more pull the status quo has. More people will, for instance, choose the status quo when there are two alternatives to it rather than one: A and B instead of just A. Why? Choosing between A and B requires additional effort; selecting the status quo avoids that effort.

In business, where sins of commission (doing something) tend to be punished much more severely than sins of omission (doing

nothing), the status quo holds a particularly strong attraction. Many mergers, for example, founder because the acquiring company avoids taking swift action to impose a new, more appropriate management structure on the acquired company. “Let’s not rock the boat right now,” the typical reasoning goes. “Let’s wait until the situation stabilizes.” But as time passes, the existing structure becomes more entrenched, and altering it becomes harder, not easier. Having failed to seize the occasion when change would have been expected, management finds itself stuck with the status quo.

What can you do about it?

First of all, remember that in any given decision, maintaining the status quo may indeed be the best choice, but you don’t want to choose it just because it is comfortable. Once you become aware of the status-quo trap, you can use these techniques to lessen its pull:

- Always remind yourself of your objectives and examine how they would be served by the status quo. You may find that elements of the current situation act as barriers to your goals.
- Never think of the status quo as your only alternative. Identify other options

and use them as counterbalances, carefully evaluating all the pluses and minuses.

- Ask yourself whether you would choose the status-quo alternative if, in fact, it weren’t the status quo.
- Avoid exaggerating the effort or cost involved in switching from the status quo.
- Remember that the desirability of the status quo will change over time. When comparing alternatives, always evaluate them in terms of the future as well as the present.
- If you have several alternatives that are superior to the status quo, don’t default to the status quo just because you’re having a hard time picking the best alternative. Force yourself to choose.

The Sunk-Cost Trap

Another of our deep-seated biases is to make choices in a way that justifies past choices, even when the past choices no longer seem valid. Most of us have fallen into this trap. We may have refused, for example, to sell a stock or a mutual fund at a loss, forgoing other, more attractive investments. Or we may have poured enormous

effort into improving the performance of an employee whom we knew we shouldn't have hired in the first place. Our past decisions become what economists term sunk costs—old investments of time or money that are now irrecoverable. We know, rationally, that sunk costs are irrelevant to the present decision, but nevertheless they prey on our minds, leading us to make inappropriate decisions.

Why can't people free themselves from past decisions? Frequently, it's because they are unwilling, consciously or not, to admit to a mistake. Acknowledging a poor decision in one's personal life may be purely a private matter, involving only one's self-esteem, but in business, a bad decision is often a very public matter, inviting critical comments from colleagues or bosses. If you fire a poor performer whom you hired, you're making a public admission of poor judgment. It seems psychologically safer to let him or her stay on, even though that choice only compounds the error.

The sunk-cost bias shows up with disturbing regularity in banking, where it can have particularly dire consequences. When a borrower's business runs into trouble, a lender will often advance additional funds in hopes of providing the business with

some breathing room to recover. If the business does have a good chance of coming back, that's a wise investment. Otherwise, it's just throwing good money after bad. more

One of us helped a major U.S. bank recover after it made many bad loans to foreign businesses. We found that the bankers responsible for originating the problem loans were far more likely to advance additional funds—repeatedly, in many cases—than were bankers who took over the accounts after the original loans were made. Too often, the original bankers' strategy—and loans—ended in failure. Having been trapped by an escalation of commitment, they had tried, consciously or unconsciously, to protect their earlier, flawed decisions. They had fallen victim to the sunk-cost bias. The bank finally solved the problem by instituting a policy requiring that a loan be immediately reassigned to another banker as soon as any problem arose. The new banker was able to take a fresh, unbiased look at the merit of offering more funds.

Sometimes a corporate culture reinforces the sunk-cost trap. If the penalties for making a decision that leads to an unfavorable outcome are overly severe, managers will be motivated to let failed projects drag on

endlessly—in the vain hope that they’ll somehow be able to transform them into successes. Executives should recognize that, in an uncertain world where unforeseeable events are common, good decisions can sometimes lead to bad outcomes. By acknowledging that some good ideas will end in failure, executives will encourage people to cut their losses rather than let them mount.

What can you do about it?

For all decisions with a history, you will need to make a conscious effort to set aside any sunk costs—whether psychological or economic—that will muddy your thinking about the choice at hand. Try these techniques:

- Seek out and listen carefully to the views of people who were uninvolved with the earlier decisions and who are hence unlikely to be committed to them.
- Examine why admitting to an earlier mistake distresses you. If the problem lies in your own wounded self-esteem, deal with it head-on. Remind yourself that even smart choices can have bad consequences, through no fault of the original decision maker, and that even the best and most experienced managers are not immune to errors in judgment. Remem-

ber the wise words of Warren Buffett: “When you find yourself in a hole, the best thing you can do is stop digging.”

- Be on the lookout for the influence of sunk-cost biases in the decisions and recommendations made by your subordinates. Reassign responsibilities when necessary.
- Don’t cultivate a failure-fearing culture that leads employees to perpetuate their mistakes. In rewarding people, look at the quality of their decision making (taking into account what was known at the time their decisions were made), not just the quality of the outcomes.

The Confirming-Evidence Trap

Imagine that you’re the president of a successful midsize U.S. manufacturer considering whether to call off a planned plant expansion. For a while you’ve been concerned that your company won’t be able to sustain the rapid pace of growth of its exports. You fear that the value of the U.S. dollar will strengthen in coming months, making your goods more costly for overseas consumers and dampening demand. But before you put the brakes on the plant expansion, you decide to call up an ac-

Movie 2.7 Act 'AS IF' You Are



Forget positive thinking, it's time for positive action.

quaintance, the chief executive of a similar company that recently mothballed a new factory, to check her reasoning. She presents a strong case that other currencies are about to weaken significantly against the dollar. What do you do? more

You'd better not let that conversation be the clincher, because you've probably just fallen victim to the confirming-evidence bias. This bias leads us to seek out information that supports our existing instinct or point of view while avoiding information that contradicts it. What, after all, did you expect your acquaintance to give, other than a strong argument in favor of her own decision? The confirming-evidence bias not only affects where we go to collect evidence but also how we interpret the evidence we do receive, leading us to give too much weight to supporting information and too little to conflicting information.

In one psychological study of this phenomenon, two groups—one opposed to and one supporting capital punishment—each read two reports of carefully conducted research on the effectiveness of the death penalty as a deterrent to crime. One report concluded that the death penalty was effective; the other concluded it was not. Despite being exposed to solid scientific information supporting

counterarguments, the members of both groups became even more convinced of the validity of their own position after reading both reports. They automatically accepted the supporting information and dismissed the conflicting information.

There are two fundamental psychological forces at work here. The first is our tendency to subconsciously decide what we want to do before we figure out why we want to do it. The second is our inclination to be more engaged by things we like than by things we dislike—a tendency well documented even in babies. Naturally, then, we are drawn to information that supports our subconscious leanings.

We tend to subconsciously decide what to do before figuring out why we want to do it.

What can you do about it?

It's not that you shouldn't make the choice you're subconsciously drawn to. It's just that you want to be sure it's the smart choice. You need to put it to the test. Here's how:

- Always check to see whether you are examining all the evidence with equal rigor. Avoid the tendency to accept confirming evidence without question.

- Get someone you respect to play devil's advocate, to argue against the decision you're contemplating. Better yet, build the counterarguments yourself. What's the strongest reason to do something else? The second strongest reason? The third? Consider the position with an open mind.
- Be honest with yourself about your motives. Are you really gathering information to help you make a smart choice, or are you just looking for evidence confirming what you think you'd like to do?
- In seeking the advice of others, don't ask leading questions that invite confirming evidence. And if you find that an adviser always seems to support your point of view, find a new adviser. Don't surround yourself with yes-men.

The Framing Trap

The first step in making a decision is to frame the question. It's also one of the most dangerous steps. The way a problem is framed can profoundly influence the choices you make. In a case involving automobile insurance, for example, framing made a \$200 million difference. To reduce insurance costs, two neighboring states,

New Jersey and Pennsylvania, made similar changes in their laws. Each state gave drivers a new option: By accepting a limited right to sue, they could lower their premiums.

But the two states framed the choice in very different ways: In New Jersey, you automatically got the limited right to sue unless you specified otherwise; in Pennsylvania, you got the full right to sue unless you specified otherwise.

The different frames established different status quos, and, not surprisingly, most consumers defaulted to the status quo. As a result, in New Jersey about 80% of drivers chose the limited right to sue, but in Pennsylvania only 25% chose it. Because of the way it framed the choice, Pennsylvania failed to gain approximately \$200 million in expected insurance and litigation savings.

The framing trap can take many forms, and as the insurance example shows, it is often closely related to other psychological traps. A frame can establish the status quo or introduce an anchor. It can highlight sunk costs or lead you toward confirming evidence.

Decision researchers have documented two types of frames that distort decision making with particular frequency:

Frames as gains versus losses.

In a study patterned after a classic experiment by decision researchers Daniel Kahneman and Amos Tversky, one of us posed the following problem to a group of insurance professionals:

You are a marine property adjuster charged with minimizing the loss of cargo on three insured barges that sank yesterday off the coast of Alaska. Each barge holds \$200,000 worth of cargo, which will be lost if not salvaged within 72 hours. The owner of a local marine-salvage company gives you two options, both of which will cost the same:

- Plan A: This plan will save the cargo of one of the three barges, worth \$200,000.
- Plan B: This plan has a one-third probability of saving the cargo on all three barges, worth \$600,000, but has a two-thirds probability of saving nothing.

Which plan would you choose?

If you are like 71% of the respondents in the study, you chose the “less risky” Plan A, which will save one barge for sure. An-

other group in the study, however, was asked to choose between alternatives C and D:

- Plan C: This plan will result in the loss of two of the three cargoes, worth \$400,000.
- Plan D: This plan has a two-thirds probability of resulting in the loss of all three cargoes and the entire \$600,000 but has a one-third probability of losing no cargo.

Faced with this choice, 80% of these respondents preferred Plan D.

The pairs of alternatives are, of course, precisely equivalent—Plan A is the same as Plan C, and Plan B is the same as Plan D—they’ve just been framed in different ways.

The strikingly different responses reveal that people are risk averse when a problem is posed in terms of gains (barges saved) but risk seeking when a problem is posed in terms of avoiding losses (barges lost).

Furthermore, they tend to adopt the frame as it is presented to them rather than restating the problem in their own way.

Framing with different reference points.

The same problem can also elicit very different responses when frames use different reference points. Let's say you have \$2,000 in your checking account and you are asked the following question:

- Would you accept a fifty-fifty chance of either losing \$300 or winning \$500?
- Would you accept the chance?

What if you were asked this question:

- Would you prefer to keep your checking account balance of \$2,000 or to accept a fifty-fifty chance of having either \$1,700 or \$2,500 in your account?

Once again, the two questions pose the same problem. While your answers to both questions should, rationally speaking, be the same, studies have shown that many people would refuse the fifty-fifty chance in the first question but accept it in the second. Their different reactions result from the different reference points presented in the two frames. The first frame, with its reference point of zero, emphasizes incremental gains and losses, and the thought of losing triggers a conservative response in many people's minds. The second

frame, with its reference point of \$2,000, puts things into perspective by emphasizing the real financial impact of the decision.

What can you do about it?

A poorly framed problem can undermine even the best-considered decision. But any adverse effect of framing can be limited by taking the following precautions:

- Don't automatically accept the initial frame, whether it was formulated by you or by someone else. Always try to reframe the problem in various ways. Look for distortions caused by the frames.
- Try posing problems in a neutral, redundant way that combines gains and losses or embraces different reference points. For example: Would you accept a fifty-fifty chance of either losing \$300, resulting in a bank balance of \$1,700, or winning \$500, resulting in a bank balance of \$2,500?
- Think hard throughout your decision-making process about the framing of the problem. At points throughout the process, particularly near the end, ask yourself how your thinking might change if the framing changed.

- When others recommend decisions, examine the way they framed the problem. Challenge them with different frames.

The Estimating and Forecasting Traps

Most of us are adept at making estimates about time, distance, weight, and volume. That's because we're constantly making judgments about these variables and getting quick feedback about the accuracy of those judgments. Through daily practice, our minds become finely calibrated.

Making estimates or forecasts about uncertain events, however, is a different matter. While managers continually make such estimates and forecasts, they rarely get clear feedback about their accuracy. If you judge, for example, that the likelihood of the price of oil falling to less than \$15 a barrel one year hence is about 40% and the price does indeed fall to that level, you can't tell whether you were right or wrong about the probability you estimated. The only way to gauge your accuracy would be to keep track of many, many similar judgments to see if, after the fact, the events you thought had a 40% chance of occurring actually did occur 40% of the time. That would require a great deal of data, carefully tracked over a long period of

time. Weather forecasters and bookmakers have the opportunities and incentives to maintain such records, but the rest of us don't. As a result, our minds never become calibrated for making estimates in the face of uncertainty. more

All of the traps we've discussed so far can influence the way we make decisions when confronted with uncertainty. But there's another set of traps that can have a particularly distorting effect in uncertain situations because they cloud our ability to assess probabilities. Let's look at three of the most common of these uncertainty traps:

The overconfidence trap.

Even though most of us are not very good at making estimates or forecasts, we actually tend to be overconfident about our accuracy. That can lead to errors in judgment and, in turn, bad decisions. In one series of tests, people were asked to forecast the next week's closing value for the Dow Jones Industrial Average. To account for uncertainty, they were then asked to estimate a range within which the closing value would likely fall. In picking the top number of the range, they were asked to choose a high estimate they thought had only a 1% chance of being exceeded by

the closing value. Similarly, for the bottom end, they were told to pick a low estimate for which they thought there would be only a 1% chance of the closing value falling below it. If they were good at judging their forecasting accuracy, you'd expect the participants to be wrong only about 2% of the time. But hundreds of tests have shown that the actual Dow Jones averages fell outside the forecast ranges 20% to 30% of the time. Overly confident about the accuracy of their predictions, most people set too narrow a range of possibilities.

Think of the implications for business decisions, in which major initiatives and investments often hinge on ranges of estimates. If managers underestimate the high end or overestimate the low end of a crucial variable, they may miss attractive opportunities or expose themselves to far greater risk than they realize. Much money has been wasted on ill-fated product-development projects because managers did not accurately account for the possibility of market failure.

The prudence trap.

Another trap for forecasters takes the form of overcautiousness, or prudence. When faced with high-stakes decisions, we tend to adjust our estimates or forecasts “just

to be on the safe side.” Many years ago, for example, one of the Big Three U.S. automakers was deciding how many of a new-model car to produce in anticipation of its busiest sales season. The market-planning department, responsible for the decision, asked other departments to supply forecasts of key variables such as anticipated sales, dealer inventories, competitor actions, and costs. Knowing the purpose of the estimates, each department slanted its forecast to favor building more cars—“just to be safe.” But the market planners took the numbers at face value and then made their own “just to be safe” adjustments. Not surprisingly, the number of cars produced far exceeded demand, and the company took six months to sell off the surplus, resorting in the end to promotional pricing.

Policy makers have gone so far as to codify overcautiousness in formal decision procedures. An extreme example is the methodology of “worst-case analysis,” which was once popular in the design of weapons systems and is still used in certain engineering and regulatory settings. Using this approach, engineers designed weapons to operate under the worst possible combination of circumstances, even though the odds of those circumstances actually coming to pass were infinitesimal.

Worst-case analysis added enormous costs with no practical benefit (in fact, it often backfired by touching off an arms race), proving that too much prudence can sometimes be as dangerous as too little.

The recallability trap.

Even if we are neither overly confident nor unduly prudent, we can still fall into a trap when making estimates or forecasts. Because we frequently base our predictions about future events on our memory of past events, we can be overly influenced by dramatic events—those that leave a strong impression on our memory. We all, for example, exaggerate the probability of rare but catastrophic occurrences such as plane crashes because they get disproportionate attention in the media.

A dramatic or traumatic event in your own life can also distort your thinking. You will assign a higher probability to traffic accidents if you have passed one on the way to work, and you will assign a higher chance of someday dying of cancer yourself if a close friend has died of the disease.

A dramatic or traumatic event in your own life can also distort your thinking.

In fact, anything that distorts your ability to recall events in a balanced way will distort your probability assessments. In one experiment, lists of well-known men and women were read to different groups of people.

Unbeknownst to the subjects, each list had an equal number of men and women, but on some lists the men were more famous than the women while on others the women were more famous. Afterward, the participants were asked to estimate the percentages of men and women on each list. Those who had heard the list with the more famous men thought there were more men on the list, while those who had heard the one with the more famous women thought there were more women.

Corporate lawyers often get caught in the recallability trap when defending liability suits. Their decisions about whether to settle a claim or take it to court usually hinge on their assessments of the possible outcomes of a trial. Because the media tend to aggressively publicize massive damage awards (while ignoring other, far more common trial outcomes), lawyers can overestimate the probability of a large award for the plaintiff. As a result, they offer larger settlements than are actually warranted.

What can you do about it?

The best way to avoid the estimating and forecasting traps is to take a very disciplined approach to making forecasts and judging probabilities. For each of the three traps, some additional precautions can be taken:

- To reduce the effects of overconfidence in making estimates, always start by considering the extremes, the low and high ends of the possible range of values. This will help you avoid being anchored by an initial estimate. Then challenge your estimates of the extremes. Try to imagine circumstances where the actual figure would fall below your low or above your high, and adjust your range accordingly. Challenge the estimates of your subordinates and advisers in a similar fashion. They're also susceptible to overconfidence.
- To avoid the prudence trap, always state your estimates honestly and explain to anyone who will be using them that they have not been adjusted. Emphasize the need for honest input to anyone who will be supplying you with estimates. Test estimates over a reasonable range to assess their impact. Take a second look at the more sensitive estimates.

- To minimize the distortion caused by variations in recallability, carefully examine all your assumptions to ensure they're not unduly influenced by your memory. Get actual statistics whenever possible. Try not to be guided by impressions.

Forewarned Is Forearmed

When it comes to business decisions, there's rarely such a thing as a no-brainer. Our brains are always at work, sometimes, unfortunately, in ways that hinder rather than help us. At every stage of the decision-making process, misperceptions, biases, and other tricks of the mind can influence the choices we make. Highly complex and important decisions are the most prone to distortion because they tend to involve the most assumptions, the most estimates, and the most inputs from the most people. The higher the stakes, the higher the risk of being caught in a psychological trap.

The traps we've reviewed can all work in isolation. But, even more dangerous, they can work in concert, amplifying one another. A dramatic first impression might anchor our thinking, and then we might selectively seek out confirming evidence to jus-

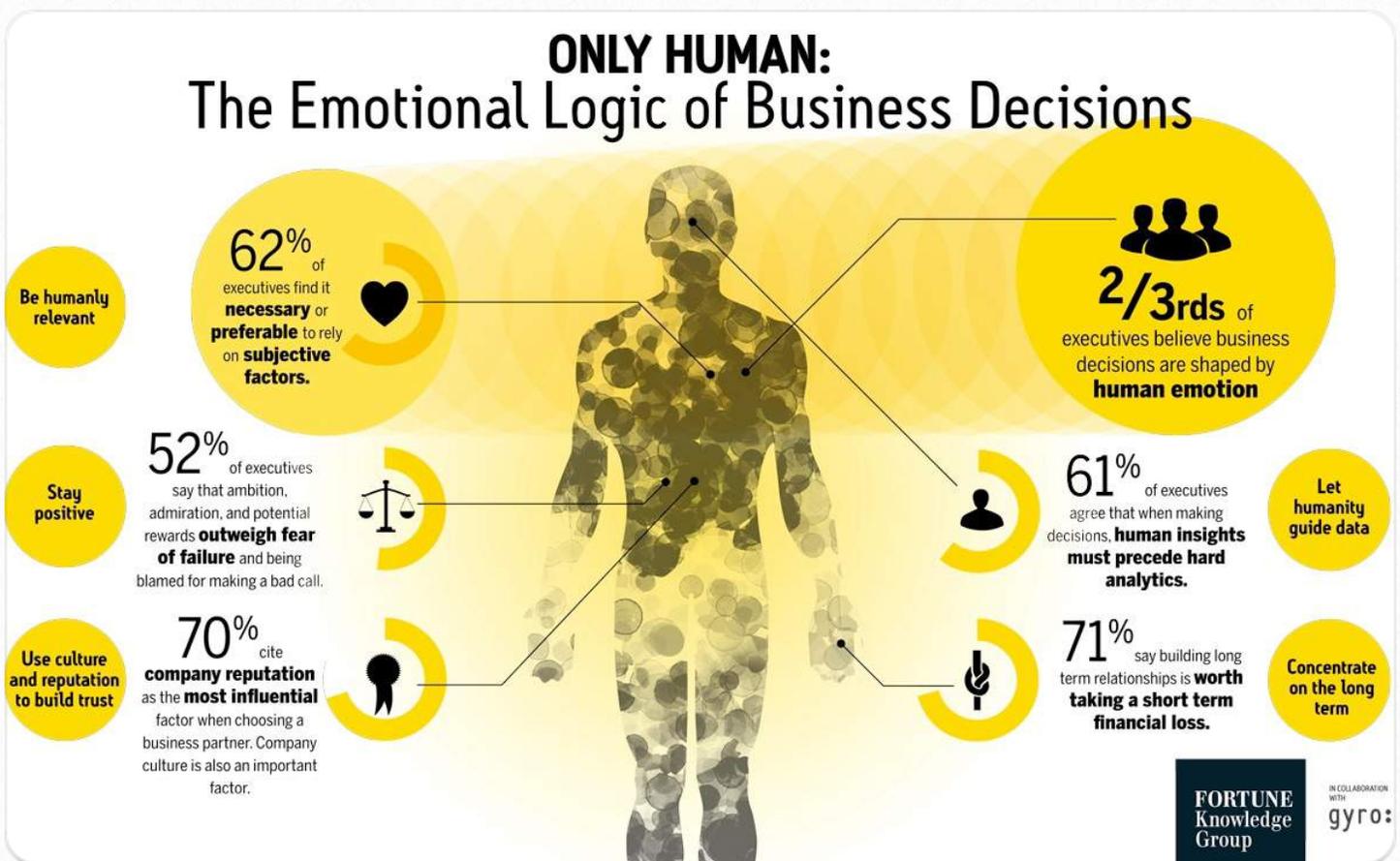
It is the highest form of self-respect to admit our errors and mistakes and make amends for them.

To make a mistake is only an error in judgment, but to adhere to it when it is discovered, shows infirmity of character.

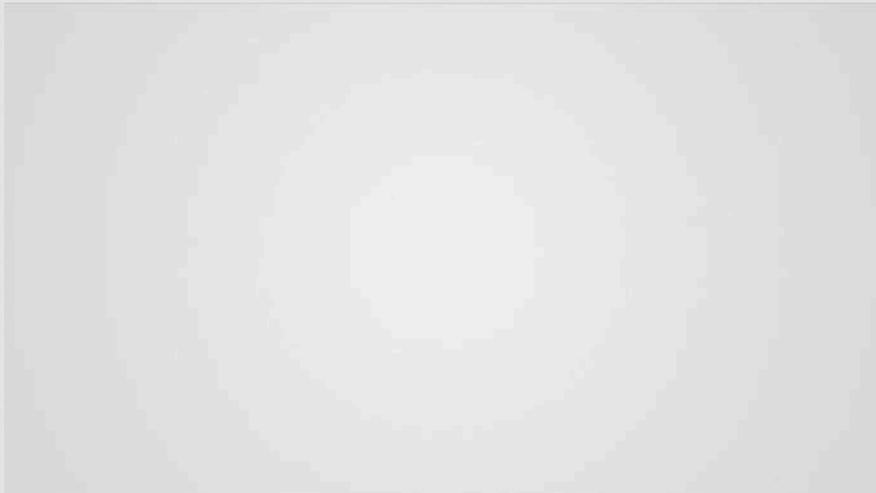
- Dale E. Turner

tify our initial inclination. We make a hasty decision, and that decision establishes a new status quo. As our sunk costs mount, we become trapped, unable to find a propitious time to seek out a new and possibly better course. The psychological miscues cascade, making it harder and harder to choose wisely.

As we said at the outset, the best protection against all psychological traps—in isolation or in combination—is awareness. Forewarned is forearmed. Even if you can't eradicate the distortions ingrained into the way your mind works, you can build tests and disciplines into your decision-making process that can uncover errors in thinking before they become errors in judgment. And taking action to understand and avoid psychological traps can have the added benefit of increasing your confidence in the choices you make.



Movie 2.8 Last Week Tonight with John Oliver: Pharma



Pharmaceutical companies spend billions of dollars marketing drugs to doctors. We have a few issues with that.

MOD2

Org Behavior

CLASS DAY FOUR



Do not suppress it,
that would only hurt
you inside.

Do not express it, this
would not only hurt
you inside, it would
cause ripples in your
surroundings.

What you do is
TRANSFORM it.

- *Peace Pilgrim*

Bureaucracy Must Die

by Gary Hamel

Almost 25 years ago in the pages of HBR, C.K. Prahalad and I urged managers to think in a different way about the building blocks of competitive success. We argued that a business should be seen as a portfolio of “core competencies” as well as a portfolio of products. By building and nurturing deep, hard-to-replicate skills, an organization could fatten margins and fuel growth. While I still believe that distinctive capabilities are essential to distinctive performance, I have increasingly come to believe (as I argued in an earlier post) that even the most competent organizations also suffer from a clutch of core incompetencies. Businesses are, on average, far less adaptable, innovative, and inspiring than they could be and, increasingly, must be.

Most of us grew up in and around organizations that fit a common template. Strategy gets set at the top. Power trickles down. Big leaders appoint little leaders. Individuals compete for promotion. Compensation correlates with rank. Tasks are assigned. Managers assess performance. Rules tightly circumscribe discretion. This is the recipe for “bureaucracy,” the 150-year old mashup of military command structures and industrial engineering that constitutes the operating system for virtually every large-scale organization on the planet. It is the unchallenged tenets of bureaucracy that disable our organizations—that make them inertial, incremental and uninspiring. To find a cure, we will have to reinvent the architecture and ideology of modern management — two topics that aren’t often discussed in boardrooms or business schools.

Architecture. Ask just about any anyone to draw a picture of their organization — be it a Catholic priest, a Google software engineer, a nurse in Britain’s National Health Service, a guard in Shanghai’s Hongkou Detention Center, or an account executive at Barclays Bank — and you’ll get the familiar rendering of lines-and-boxes. This isn’t a diagram of a network, a community, or an ecosystem — it’s the exoskeleton of bureaucracy; the pyramidal architecture of “command-and-control.” Based on the principles of unitary command and positional authority, it is simple, and scaleable. As one of humanity’s most enduring social structures, it is well-suited to a world in which change meanders rather than leaps. But in a hyperkinetic environment, it is a profound liability.

A formal hierarchy overweights experience and underweights new thinking, and in doing so perpetuates the past. It misallocates power, since promotions often go to the most politically astute rather than to the most prescient or productive. It discourages dissent and breeds sycophants. It makes it difficult for internal renegades to attract talent and cash, since resource allocation is controlled by executives whose emotional equity is invested in the past.

When the responsibility for setting strategy and direction is concentrated at the top of an organization, a few senior leaders become the gatekeepers of change. If they are unwilling to adapt and learn, the entire organization stalls. When a company misses the future, the fault invariably lies with a small cadre of seasoned executives who failed to write off their depreciating intellectual capital. As we learned with the Soviet Union, centralization is the enemy of resilience. You can’t endorse a top-down authority structure and be serious about enhancing adaptability, innovation, or engagement.

Ideology. Business people typically regard themselves as pragmatists, individuals who take pride in their commonsense utilitarianism. This is a conceit. Managers, no less than libertarians, feminists, environmental campaigners, and the devotees of Fox News, are shaped by their ideological biases. So what’s the ideology of bureaucrats? Controlism. Open any thesaurus and you’ll find that the primary synonym for the word “manage,” when used as verb, is “control.” “To manage” is “to control.”

Managers worship at the altar of conformance. That’s their calling—to ensure conformance to product specifications, work

rules, deadlines, budgets, quality standards, and corporate policies. More than 60 years ago, Max Weber declared bureaucracy to be “the most rational known means of carrying out imperative control over human beings.” He was right. Bureaucracy is the technology of control. It is ideologically and practically opposed to disorder and irregularity. Problem is, in an age of discontinuity, it’s the irregular people with irregular ideas who create the irregular business models that generate the irregular returns.

In this environment, control is a necessary but far from sufficient prerequisite for success. Think of Intel and the extraordinary control it must exert over thousands of variables to produce its Haswell family of 14-nanometer processors. This operational triumph is tempered, though, by Intel’s failure to capitalize on the explosive growth of the market for mobile devices. More than 60% of the company’s revenue is still tied to personal computers, and less than 3% comes from the company’s unprofitable “Mobile & Communications” unit.

Unfettered controlism cripples organizational vitality. Adaptability, whether in the biological or commercial realm, requires experimentation—and experiments are more likely to go wrong than right—a scary real-

ity for those charged with excising inefficiencies. Truly innovative ideas are, by definition, anomalous, and therefore likely to be viewed skeptically in a conformance-obsessed culture. Engagement is also negatively correlated with control. Shrink an individual’s scope of authority, and you shrink their incentive to dream, imagine and contribute. It’s absurd that an adult can make a decision to buy a \$20,000 car, but at work can’t requisition a \$200 office chair without the boss’s sign-off.

Make no mistake: control is important, as is alignment, discipline and accountability—but freedom is equally important. If an organization is going to outrun the future, individuals need the freedom to bend the rules, take risks, go around channels, launch experiments, and pursue their passions. Unfortunately, managers often see control and freedom as mutually exclusive—as ideological rivals like communism and capitalism, rather than as ideological complements like mercy and justice. As long as control is exalted at the expense of freedom, our organizations will remain incompetent at their core.

There’s no other way to put it: bureaucracy must die. We must find a way to reap the blessings of bureaucracy—precision, con-

sistency, and predictability—while at the same time killing it. Bureaucracy, both architecturally and ideologically, is incompatible with the demands of the 21st century.

Some might argue that the biggest challenge facing contemporary business leaders is the undue prominence given to shareholder returns, or the fact that corporations have too long ignored their social responsibilities. These are indeed challenges, but they are neither as pervasive nor as problematic as the challenge of defeating bureaucracy.

First, only a minority of the world's employees work in publicly-held corporations that are subject to the rigors and shortcomings of American-style capitalism. Bureaucracy, on the other hand, is universal.

Second, most progressive leaders, like Apple's Tim Cook or HCL Technologies' retired CEO Vineet Nayar, already understand that the first priority of a business is to do something truly amazing for customers, that shareholder returns are but one measure of success, that short-term ROI calculations can't be used to as the sole justification for strategic investments, and that, since corporate freedoms are socially negotiated, businesses must be responsive to the broader needs of the societies

in which they operate. All this is becoming canonical among enlightened executives. Yes, work still needs to be done to better align CEO compensation with long-term value creation, but that work is already well underway. And while some CEOs still grumble that Anglo-Saxon investors are inherently short-term in their outlook, their argument breaks down the moment you realize that investors often happily award a fast-growing company a price-earnings multiple that is many times the market average.

Simply put, at this point in business history, the pay-off from reforming capitalism, while substantial, pales in comparison to the gains that could be reaped from creating organizations that are as fully capable as the people who work within them.

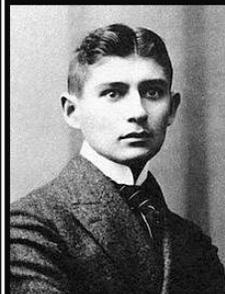
I meet few executives around the world who are champions of bureaucracy, but neither do I meet many who are actively pursuing an alternative. For too long we've been fiddling at the margins. We've flattened corporate hierarchies, but haven't eliminated them. We've eulogized empowerment, but haven't distributed executive authority. We've encouraged employees to speak up, but haven't allowed them to set strategy. We've been advocates for innovation, but haven't systematically dismantled

Only those who have learned the power of sincere and selfless contribution, experience life's deepest joy, true fulfillment.

- Tony Robbins

the barriers that keep it marginalized. We've talked (endlessly) about the need for change, but haven't taught employees how to be internal activists. We've denounced bureaucracy, but haven't dethroned it; and now we must.

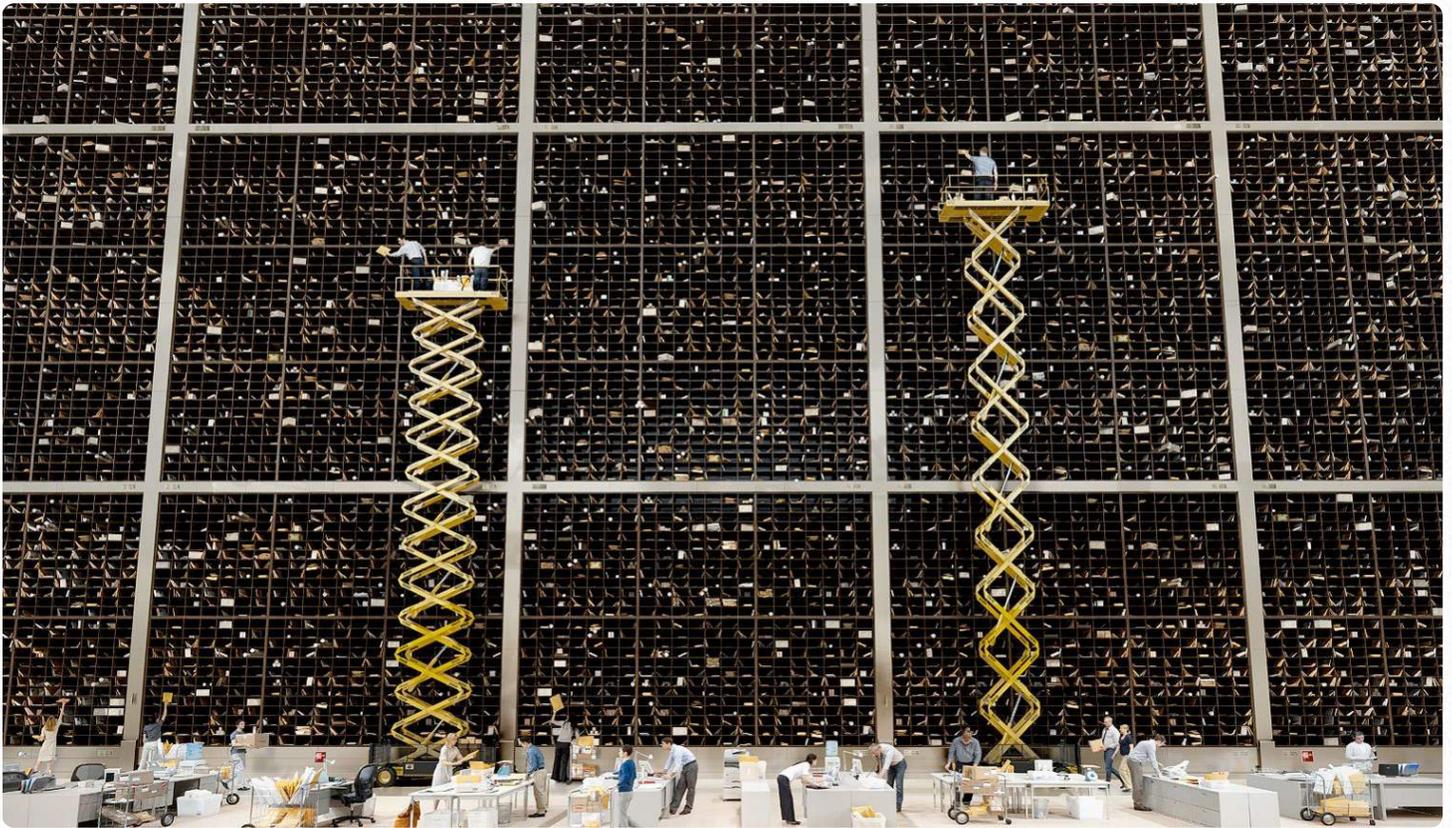
We have to face the fact that any change program that doesn't address the architectural rigidities and ideological prejudices of bureaucracy won't, in fact, change much at all. We need to remind ourselves that bureaucracy was an invention, and that whatever replaces it will also be an invention—a cluster of radically new management principles and processes that will help us take advantage of scale without becoming sclerotic, that will maximize efficiency without suffocating innovation, that will boost discipline without extinguishing freedom. We can cure the core incompetencies of the corporation—but only with a bold and concerted effort to pull bureaucracy up by its roots.



Every revolution evaporates and leaves behind only the slime of a new bureaucracy.

(Franz Kafka)

izquotes.com



It is understood that, in the long run, an all destroying conflict can be avoided only by the setting up of a world federation of nations.

- Albert Einstein

Innovating Around a Bureaucracy

by Brad Power

What do you do if you're a leader in a large, successful organization with an entrenched bureaucracy, and you see the need for innovation? Can you change the way a large organization — such as the federal government — does its work, when all the forces are arrayed for stability and conservatism?

Consider the story of the Business Transformation Agency of the Department of Defense, which was founded in 2005 under Defense Secretary Rumsfeld, and “disestablished” in 2011 by Defense Secretary Gates. The Business Transformation Agency was populated by people brought in from the commercial sector. They were bold and brash and injected fresh new

ideas that challenged existing policy and practice in many quarters of the Department of Defense administration (such as finance, human resources, procurement, and supply chain processes). They ran into many of the familiar challenges of making changes in the federal government: the difficulty of firing; the complexity of hiring at many levels of management; the need for contracts to be put out for competitive bidding; multiple stakeholders including civil servants, appointees, contractors, regulators; and Congress to be considered in almost all decisions. Unlike at commercial companies, there was no senior leader who could mandate changes. The Deputy Secretary of Defense that originally sponsored the agency under Rumsfeld left, and the new leader was less enthusiastic, ultimately leading to the agency's demise. The entrenched culture of the Department of Defense defeated attempts to change it.

The Internal Revenue Service (IRS), however, was successful in transforming its bureaucracy. The IRS had two advantages: Congress provided a strong mandate for change (the U.S. IRS Reform and Restructuring Act of 1998); and an outstanding, senior executive from the private sector, Charles Rossotti, was appointed for a five-year term to drive the changes. Under Rossotti's guidance, the IRS reorganized from

a geographic structure to four new customer-oriented operating divisions. IT also upgraded old technology and processes, achieving significant improvements in service and compliance. For example, it implemented an Internet service that answers the question "Where's my refund?" that has had over one billion hits and freed up 800 customer service representatives to handle more complex issues.

So, what makes the difference between success and failure? Based on long experience working with government agencies and with large organizations of all stripes, I have seen that big changes to the way work is done require:

- a team of insiders and outsiders to come up with new ideas
- a clear external motivation to do something
- strong leaders who believe in the ideas and push the bureaucracy to implement them consistently over a number of years

Sometimes (but not often) bureaucracies do make incremental changes to the way they do work, but they are usually not sufficient to meet citizen-customer needs. An innovation team composed of the "best

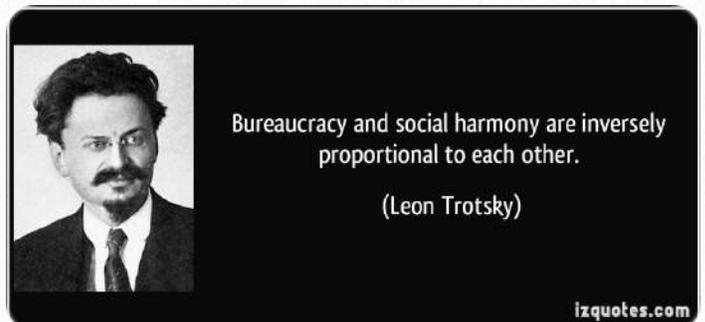
and brightest” (like the “bold and brash” Business Transformation Agency) can identify bigger changes, but those cannot be implemented inside a strong bureaucracy without a strong and clear motivation to change.

Now, in a competitive free-market environment, a for-profit company can be motivated by threats to its survival, or by declining market share and profitability. The big challenge for a government agency, however, is that the motivation needs to be a congressional or administration mandate. I’d like to tell you there’s another way to motivate change in case you don’t have such a mandate, but in the extreme environment of an entrenched bureaucracy, I haven’t seen it. Thus, needed process changes within bureaucracies should always be built into such initiatives.

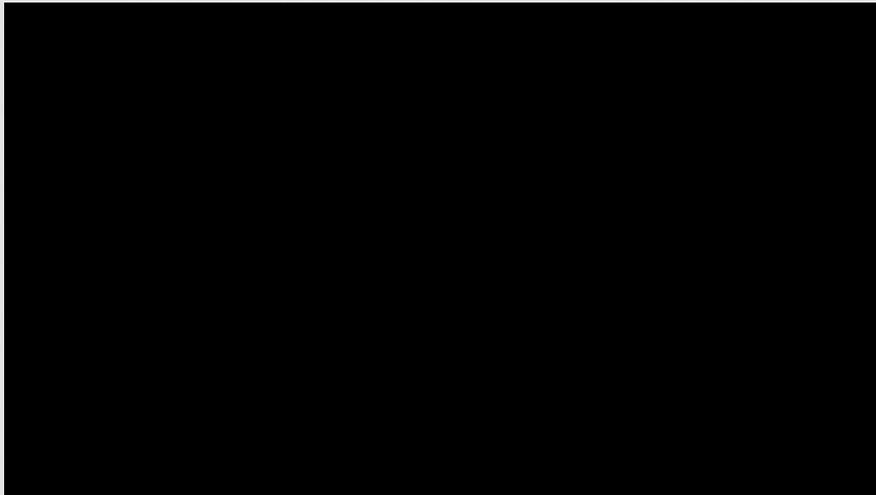
Probably most important, though, as in the example of the IRS, a senior leader is absolutely essential to drive the change and sharpen the organization’s focus on citizen-customers — to overcome the natural tendency of bureaucracies to focus internally. And as the IRS and Department of Defense stories illustrate, the bureaucratic ship won’t turn on a dime — leaders need to sustain focus on the changes over the long term, likely for five years or more.

Leaders of big bureaucracies need to get — and keep — everyone enthused, create and communicate a future vision, assure support during the transition, insist on excellence, create demands on managers, and convince everyone of top management’s conviction and commitment to change. These leadership challenges may seem familiar, but in a bureaucracy they are, if anything, magnified. To sustain momentum in this special context, leaders may need to adopt the behaviors of a fanatic — as Winston Churchill said, “*A fanatic is one who can’t change his mind and won’t change the subject.*”

Of course, the federal government provides an extreme example of entrenched bureaucracy with an established way of doing things. But it offers lessons to any organization that is mature, successful, and set in its ways, yet recognizes the need to transform itself.



Movie 3.1 Delivery Software Innovation



Ever since humans stood on two feet we have had the basic urge to go faster. But are there physical limits to how fast we can go?

Unproductive Busyness



The Remedy for Unproductive Busyness

by Francesca Gino and Bradley Staats

Raise your hand if you feel busy. Keep it up, still, if you think the busyness is hurting your productivity. If your hand is still up, then you should keep on reading.

It's very easy to succumb to the temptation of staying busy even when it is counterproductive: It is the way our brains are wired. But there is a remedy that we can employ to translate that predisposition into productivity.

Research points to two reasons we often feel busy (but not necessarily productive) — and they are both self-imposed.

People have an aversion to idleness. We have friends who will, by choice, drive miles out of their way to avoid waiting for a few minutes at traffic lights, even if the detour means their journey takes more time. Research suggests that the same applies to work, where many of the things we choose to do are merely justifications to keep ourselves busy.

We have a bias toward action. When faced with uncertainty or a problem, particularly an ambiguous one, we prefer to do something, even if it's counterproductive and doing nothing is the best course of action.

Consider the case of professional soccer goalies who need to defend against penalty kicks. What is the most effective strategy for stopping the ball?

Most of us think that if we were in their shoes, we would be better off jumping to the right or to the left. As it turns out, staying in the center is best. Research has found that goalkeepers who dive to the right stop the ball 12.6% of the time and those who dive to the left do only a little better: They stop the ball 14.2% of the time. But goalies who don't move do the

best of all: They have a 33.3% chance of stopping the ball.

Nonetheless, goalies stay in the center only 6.3% of the time. Why? Because it looks and feels better to have missed the ball by diving (an action) in the wrong direction than to have the ignominy of watching the ball go sailing by and never to have moved. The action bias is usually an emotional reaction to the sense that you should do something, even if you don't know what to do. By contrast, hanging back, observing, and exploring a situation is often the better choice.

The action bias can lead us to jump into developing solutions before we fully understand a problem. In one study we conducted, we found that people feel more productive when they are executing tasks rather than when they are planning them. Especially when under time pressure, they perceived planning as a waste of time — even if it actually leads to better performance than jumping into the task head-first.

Choosing to be busy over real progress can be an easy choice; being productive, by contrast, is much more challenging. What helps?

Reminding ourselves that taking the time to reflect can help make us more productive.

In a study we conducted at the tech-support call center at Wipro, a business-process outsourcing company based in Bangalore, India, we found that thinking improves performance. We asked groups of employees going through training to spend the last 15 minutes of each day writing about and reflecting on the lessons they had learned that day. Other employees just kept working at the end of the day for those 15 minutes and did not receive additional training.

The result? Over the course of one month, the reflection group increased its performance on the final training test by an average of 22.8% more than the control group of trainees who had been working 15 minutes longer per day!

Reflection has such beneficial effects on performance because it makes us more aware of where we are, gives us information about our progress, and lends us the confidence we need to accomplish tasks and goals.

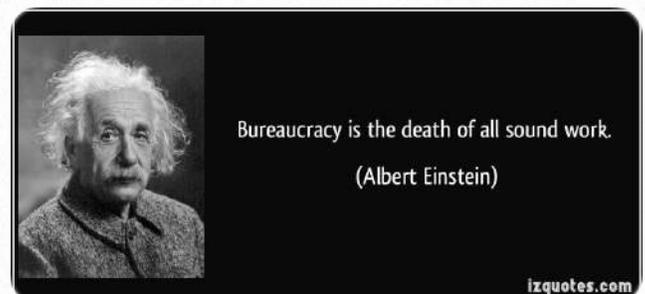
This type of thinking is also beneficial when it takes the form of planning. In one field study, Oriana Bandiera of the London School of Economics and her colleagues

had 354 CEOs of listed Indian manufacturing firms record the activities they engaged in at work over the course of a week. The research team identified two types of CEOs.

The first engaged in advance planning, interacted primarily with his or her direct reports, and was more likely to have meetings with many people who performed different functions.

The second type of CEO was less likely to plan ahead and more likely to meet with outsiders in one-to-one meetings. The most successful were the planners, who were linked to higher firm-level productivity and profitability.

Learning to stay in the center, as goalkeepers should, involves stepping back, allocating time to just think, and only then taking action. Through reflection, we can better understand the actions we are considering and ensure they are the ones that will make us productive. As a mentor once told one of us: “Don’t avoid thinking by being busy.”



Movie 3.2 Dilbert on Unproductive People



Dilbert lectures on the negatives of being attractive

Fooled by Experience



Fooled by Experience

Emre Soyer and Robin M. Hogarth

We rely on the weight of experience to make judgments and decisions. We interpret the past—what we've seen and what we've been told—to chart a course for the future, secure in the wisdom of our insights. After all, didn't our ability to make sense of what we've been through get us where we are now? It's reasonable that we go back to the same well to make new decisions.

It could also be a mistake...

Experience seems like a reliable guide, yet sometimes it fools us instead of making us wiser.

The problem is that we view the past through numerous filters that distort our perceptions. As a result, our interpretations of experience are biased, and the judgments and decisions we base on those interpretations can be misguided. Even so, we persist in believing that we have gleaned the correct insights from our own experience and from the accounts of other people.

If our goal is to improve decision making, we can use our knowledge of those filters to understand just what our experience has to teach us. Distilling a wide range of research on the subject, we focus in this article on the biases that result from three types of filters: the business environment, which favors the observation of outcomes (especially successes) over the processes that lead to them; our circle of advisers, who may be censoring the information they share with us; and our own limited reasoning abilities. We also consider techniques for overcoming those biases.

We Focus on What We Can See

In the business environment, the outcomes of decisions are highly visible, readily avail-

able for us to observe and judge. But the details of the decision process, which we can control far more than the result, typically don't catch our attention. If the aim is to learn from experience—mistakes as well as successes—acknowledging that process is crucial.

We celebrate successes and condemn failures—a response that disregards the underlying causes.

Imagine that two firms use the same risky strategy, but one gets lucky and prospers while the other doesn't. We celebrate the first one and condemn the second—a response that disregards the underlying causes. The tendency to overreward the results of a decision and underreward its quality is known as the outcome bias.

This bias can influence our actions in subtle ways. A good outcome can lead us to stick with a questionable strategy, and a bad outcome can cause us to change or discard a strategy that may still be worthwhile. For example, in the NBA, coaches “are more likely to revise their strategy after a loss than a win—even for narrow losses, which are uninformative about team effectiveness,” a recent Management Science article shows.

A focus on outcomes can also influence our sense of ethics. A Harvard Business School working paper finds that “the same behaviors produce more ethical condemnation when they happen to produce bad rather than good outcomes, even if the outcomes are determined by chance.” In other words, if everything turns out OK, we’re more likely to think that the decision was not just effective but also morally sound.

Our attention to outcomes—and disregard of the processes that create them—makes solutions seem more valuable than preventive actions. A decision maker who solves a burning problem can be identified and rewarded, while one who takes action to avoid the same problem is far harder to spot.

Among outcomes, successes are more visible than failures. The business world is awash with success stories: The latest best-sellers, the biggest start-up, and winning corporate strategies are widely trumpeted, while failures quietly disappear.

Relying on stories of successes and on analyses of what those successes have in common is as unreliable a practice as it is popular. In an article in *Organization Science*, Jerker Denrell points out that observ-

ing the common managerial practices of existing organizations can mislead us in a couple of ways. First, failures can share some of the same traits as successes. Second, if certain factors always lead to failure, we won’t be able to discover them by studying only successes. Approach with caution any list that purports to reveal, for instance, “10 common traits of successful companies”—whether it is punctuated with an exclamation point or comes with the seriousness of a legitimate study.

Ignoring failures has another effect. In *Fooled by Randomness*, Nassim Nicholas Taleb argues that doing so masks the failure rate. If the rate is high, chances are there is no magic formula for success. And if there’s no magic formula, then a manager can’t be faulted for missing it. By concealing the prevalence of failures, the environment makes it more difficult for us to learn from them. Instead, we are fooled into thinking that we have more control over success than we actually do.

We Trust Our Circle of Advisers

Honest feedback—an unbiased, undistorted assessment of one’s experience—is essential for improving decisions. Yet decision makers are often surrounded by individuals who have incentives to feed them

censored and self-serving information—and these people are not necessarily a crowd of yes-men.

Censorship is a powerful tool for influencing opinion. Restricting the information that reaches decision makers installs a strong bias in their perceptions. Even if we are aware of the existence of censors, it can be difficult to think beyond the immediately available information. Our intuitions are often shaped by the evidence we recall, no matter its relevance—a tendency cognitive scientists call the availability bias.

Individuals who are hoping for a raise, a promotion, or some other benefit may well choose to deliver partial and insincere feedback, omitting anything negative about a decision maker's performance. As the organizational psychologist Lynn Offermann argues in "When Followers Become Toxic" (HBR, January 2004), leaders run the danger of being "surrounded by followers who fool them with flattery and isolate them from uncomfortable realities." In this way, flattery can be an especially powerful filter.

But your trusted advisers aren't necessarily aiming to ingratiate themselves with you; they may just be trying to conform.

One powerful way to do that is to agree with you. It is much easier to conform to others' opinions than to voice objections. If all your advisers follow that approach, you won't have any dissenters.

Your demeanor can make matters worse. Shooting the messenger doesn't facilitate healthy communication. Indeed, welcoming criticism is hard, especially for people with high status.

Censorship and a desire for conformity give decision makers a distorted view of their strategic competence, a bias that can result in their downfall. A recent article in *Administrative Science Quarterly* abstract suggests that such misperceptions may reduce "the likelihood that CEOs will initiate needed strategic change in response to poor firm performance," which, of course, can lead to their dismissal.

Executives who are surrounded by people who agree with them may also experience decreased creativity and problem-solving abilities. Conceiving an idea, a strategy, or a methodology is rarely a solo act. A successful creative endeavor involves input from a diverse set of people. If everyone is simply trying to conform, the group cannot benefit from people's backgrounds, perspectives, and experiences.

We Overvalue Our Own Experience

We can't place all the blame for our distorted view of the world on the environment and our inner circle. Some of the blame lies with us. Our own reasoning abilities can sabotage how we collect information and evaluate evidence. We end up learning the wrong lessons from our experience—even when it's possible to learn the right ones.

One issue is that we tend to search for and use evidence that confirms our beliefs and hypotheses, and we gloss over or ignore information that contradicts them—an exercise of selectively building and interpreting experience known as the confirmation bias. We can easily support our beloved superstitions, spurious correlations, and bogus connections. This natural tendency of the human mind hinders competent decision making.

Some see external, information-rich big data as a possible remedy, but data is subject to the same kinds of bias. If analysts cherry-pick information to suit managers' expectations, managers will be reassured about their decisions and see no need to improve them. And once misleading insights are data-approved, they are even harder to challenge.

Another issue is our memory. The philosopher John Stuart Mill wrote in *On Liberty*, "There are many truths of which the full meaning cannot be realized, until personal experience has brought it home." Mill's sentiment assumes that we record and remember events accurately. We don't.

In addition to the poor quality and reliability of our memory of experience, there is the crucial problem of quantity. The issue is sampling variability: A manager's personal experience is inevitably based on small samples of incidents that are most likely unrepresentative of the whole context; there is no way that any one manager can experience the entire range of possibilities. Differences among incidents may be due to unknown factors or randomness. If managers read too much into those differences, they may be fooled into seeing patterns that do not actually exist and illusory relationships between unrelated variables.

Our belief in the relationship between the past and the future also can interfere with our view of the world. Predictions based on experience make the crucial assumption that the future will resemble the past. One of us, Robin Hogarth, has done extensive research on how human intuition fares in prediction tasks. The findings suggest that not even experts with a tremendous

amount of experience are proficient in foreseeing economic, social, and technological developments.

Managers should be aware that just because something seems obvious after the fact does not mean that it could have been predicted. Decision makers often fall into this hindsight bias, which can lead to overconfidence and illusions of control. When it comes to effective decision making, not knowing that you cannot predict is a bigger sin than not being able to predict.

How Not to Be Fooled

The following techniques can uncover the real lessons experience offers. None are easy, but making the effort to adopt them can help you base decisions on a clearer view of the world.

Sample failure.

Failures and the processes that lead to them are doomed to stay in the dark unless special occasions are created to bring them to light. It is not easy for managers to share their experiences of defeat. One exception is Paul Biggar, a founder of Newstilt, who posted a detailed account of the fall of the news website, which stayed

open for just two months in 2010. To give more people the opportunity to share their stories of failure, a group of entrepreneurs has been organizing FailCon, a conference dedicated to giving visibility to experiences that would otherwise remain hidden.

To identify what could be done better in the future, companies can also conduct decision postmortems to analyze underlying processes. Of course, the goal of learning must dominate the natural tendency to assign blame.

Don't miss near misses.

Another oft-ignored event is the near miss—a failure that's disguised as a success, but only because there are generally no dire consequences.

An executive at a chemical company told us of a near miss when a machine malfunctioned at a plant, causing a sudden burst of extremely hot gas. Luckily, no workers were nearby, but a quick inquiry revealed that some of the workers in the plant hadn't been wearing protective gear at the time of the incident, even though they are required to put it on the minute they step onto the premises. Exposure to the gas without the safety gear would have resulted in serious physical injury.

It might be easy to dismiss this episode as unimportant, since no one was hurt. But doing so would deprive the company of an opportunity to learn a valuable lesson without having to suffer dreadful consequences. Ironically, ignoring this near disaster—as so often happens—would lead workers to perceive it as inconsequential and thus would help perpetuate the same dangerous behavior.

As Catherine Tinsley, Robin Dillon, and Peter Madsen have shown in “How to Avoid Catastrophe” (HBR, April 2011), risk-free, anonymous reporting channels can reduce close calls and disastrous mistakes in many sectors.

Pursue prevention.

Recognizing a potential problem requires a different approach than solving an actual problem. One strategy is to harness employees’ collective talents by allowing people to raise concerns about the firm’s operations.

Many companies’ incentive mechanisms work exactly to the contrary, and employees often hesitate to speak up for fear of reprisal or being labeled a nuisance. But the signs of a blunder can be picked up more easily by lower-level managers and personnel who deal with daily operations

than by their senior colleagues. Employees should be made to feel comfortable reporting issues to the very top—even obliged to do so.

Disagree.

As Peter Drucker wrote, “The first rule in decision making is that one does not make a decision unless there is disagreement.” To devise healthy strategies, executives need to hear many perspectives, including feedback that is critical of their own actions. Executives should surround themselves with people from diverse backgrounds and promote independent thinking in their team. Many executives task certain coworkers, friends, or family members with speaking frankly on important matters.

Ed Catmull, the president of Pixar and Walt Disney Animation Studios, stresses the importance of building a brain trust, a group of advisers who will deflate egos and voice unpopular opinions.

He argues in his September 2008 HBR article that disagreements in meetings end up benefiting everyone in the long run, because “it’s far better to learn about problems from colleagues when there’s still time to fix them than from the audience after it’s too late.”

Disconfirm.

Rather than finding clues that corroborate your hunch—all too easy in an information-rich world—start by asking yourself how you could know you were, in fact, wrong. What evidence would contradict your belief and how likely is it that you would see it? One technique is to use this thought experiment: Imagine that you are already in the future and things have not turned out as you had hoped. Now use your new hindsight to ask how this might have happened.

If you do go the route of using big data, refrain from revealing your hopes and dreams to the data scientists you hire to collect and mine information. Ask questions in a way that prompts them to look for caveats that would endanger your mission but that doesn't reveal what you actually hope they'll find.

Lose focus.

It may seem that to mine our experience for valuable lessons, we must focus on the experiences we think really matter. In fact, a narrow perspective can be a serious impediment. In *The Luck Factor*, the psychologist Richard Wiseman shows that when people focus too much on an issue or a task, they inevitably miss out on unex-

pected opportunities. For a firm, spotting those opportunities is vital. A company that directs its R&D efforts on a single domain, a start-up that uses only a few channels of communication, or a manager who employs only people from a certain background will not be able to cope well with the complexity of today's business environment.

Being open to the unexpected is also crucial for individuals. A wide perspective can help, giving new meaning to our varied experiences and allowing us to learn from them and draw on them in surprising ways. The result is often serendipitous discovery and innovation. Curiosity prompted Alexander Fleming to inspect a moldy petri dish before cleaning it, a move that resulted in the discovery of penicillin. Similarly, a passion for hiking and hunting led George de Mestral to invent Velcro. Seeds that got stuck in his dog's fur gave him the idea for the product.

Managers who acknowledge the role of serendipity and luck have an advantage over those who have illusions of control and are overconfident about the accuracy of their judgments. Change is both inevitable and unpredictable. As Spyros Makridakis, Robin Hogarth, and Anil Gaba argue in *Dance with Chance*, managers who accept

All life is an experiment.

The more experiments you make, the better.

- Ralph Waldo Emerson

that can calibrate their intuitions accordingly and learn to see change as an opportunity rather than a shock. To do so, they must broaden their perspective. Welcoming diverse experiences will help decision makers manage the unknowns ahead and greatly increase the odds of being in the right place at the right time.

The lessons experience seems to be teaching us, accepted uncritically, should almost never guide our actions. What we learn from experience is typically filtered: by the business environment, by the people around us, and by ourselves. If we keep the filters and their antidotes clearly in mind, we can discover what experience actually has to teach us.

As the late Hillel Einhorn, one of the fathers of behavioral decision theory, asked, "If we believe we can learn from experience, can we also learn that we can't?"



Movie 3.3 Why the Beautiful People Get All the Stuff



Dan Ariely is the James B Duke Professor of Psychology and Behavioral Economics at Duke University

Why Learning from Experience Is Complicated

BEHAVIORS

We focus on outcomes, especially successes.

CONSEQUENCES

- We don't study the process leading up to an outcome.
- We underestimate the role of chance.
- We change strategies for the wrong reasons.
- Solving problems is rewarded; preventing them is not.

REMEDIES

- Deliberately study failures.
- Conduct postmortems on decision processes.
- Learn from near misses.
- Reward people who prevent problems from occurring.

Advisers censor what they tell us.

- Our view of our strategic competence becomes distorted.
- People feel compelled to agree with the group.
- The group becomes less creative.

- Build a brain trust with differing points of view on strategic questions.
- Find a confidant who will disagree with you.
- Create risk-free, anonymous reporting channels.

We focus on evidence that confirms our beliefs.

- We continue to base decisions on spurious correlations and connections.
- Data analysts and consultants may feel compelled to tell us what we want to hear.

- Actively look for disconfirming evidence.
- Imagine the decision went badly, then figure out probable reasons.
- Don't tip your hand to data scientists or other experts brought in to help.

We rely on our faulty memories, our limited experience, and our misguided belief that the future will resemble the past.

- We see patterns that don't exist.
- We try to predict things that can't be predicted.
- Unexpected events are seen as hindrances rather than opportunities.

- Seek out caveats that would endanger your mission.
- Imagine more than one possible scenario.
- Acknowledge the role of luck.
- Embrace serendipity.

SOURCE EMRE SOYER AND ROBIN M. HOGARTH
FROM "FOOLED BY EXPERIENCE," MAY 2015

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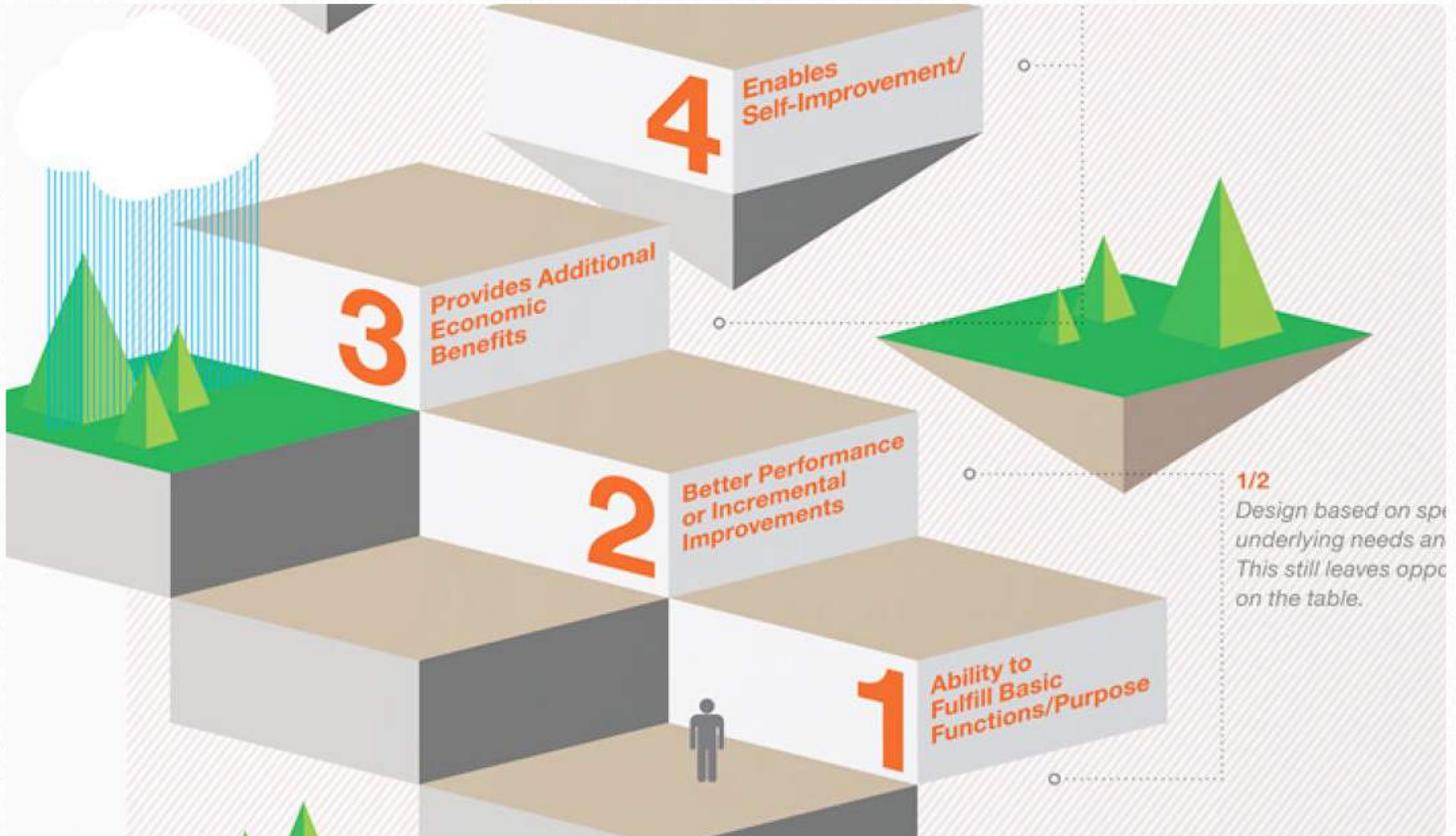
Movie 3.4 What is Good Business?



GOOD BUSINESS

It's become easy to feel that all businesses are somehow bad and corrupt. Far from it. So long as they follow these six principles, any business can be good.

Game Motivation



Method: 4 Things Video Games Teach Us About Motivating People

How to turn gaming into a source of social change.

It is becoming harder and harder to predict what factors will drive the success of a new product or service, as consumers face more and more choices these days. Success is contingent upon more than just engineering-driven features and functions, new product bells and whistles, or a creative campaign. Ultimately, none of these factors by themselves ensure market success because they cannot predict consumer behavior or reaction. Despite a sense of short term achievement and perhaps stimulating initial consumer interest, they fail to deliver long term brand loyalty.

Instead, successful products and services identify and understand our deeply seated natural tendencies and the ways in which they can be used to change our behavior. By leveraging game-like mechanisms to satisfy these needs and tendencies, we can create behavioral change across a broad spectrum of pressing issues, from healthcare and finances to philanthropy and conservation. Games engage consumers and build value around products and services, creating a powerful competitive advantage.

Game-Changing Benefits

An estimated 3 billion hours are currently spent on gaming every week. By age 21, the average American will have spent more than 10,000 hours playing video games " the equivalent to 5 years of work at a full time job! The total amount of time that World of Warcraft has been played is 5.93 million years. Game designer and researcher Jane McGonigal makes the case in her 2010 TED talk that games inspire people the way real life does not, raising the question: what is it about games that enables this extraordinary degree of engagement"

One/Games create urgent optimism. Two/Games create tight social groups. Three/Games create blissful productivity. Four/Games create meaning.

— Jane McGonigal,
Game Designer and Researcher

Several studies have sought to unlock the psychological attraction of game play, but what is abundantly clear is that the whole gaming industry has been growing rapidly. Casual gaming company Zynga recently surpassed 100 million unique monthly visitors with the release of their viral hits Mafia Wars and Farmville, giving them an estimated valuation rumored to be \$4 billion.

Designing for Change

Understanding how our needs and desires drive our behavior is an essential first step in developing a successful design strategy. This means increasing attention on directing and delivering value to users at the emotional level, instead of relying on basic functions as value propositions. The Hierarchy of Needs (see diagram on p4) is a helpful consideration in designing for change; products and services that reach higher tiers on the pyramid result in more meaningful behavior change.

The Hierarchy of Needs can be used to increase engagement, strengthen brand equity and expand influence in the market, but a product or service must extend beyond its intended use to be truly successful in these efforts. This requires recognizing opportunities that are part of an ex-

tended use case and identifying adjacent needs that can be addressed through continued engagement with the product or service. The end goal is always to provide customers with a reason to continue their engagement over time. Weight Watchers successfully achieves this by reaching customers through online communities, in the supermarket, by mobile, and at local meetings, helping them reach and maintain weight loss goals over time.

Because one size rarely fits all, a product or service should strive to provide more value over time by allowing consumers to satisfy additional needs. A beneficial interaction, such as a game-like experience, is more likely to prompt a change in behavior as users get value, simultaneously benefiting the business providing the product or service.

The highest level of consumer engagement and brand loyalty comes from positive experience. By reflecting the way people want to act, a product or service more effectively changes attitude and behavior. As the foundation for tribal mentality, behavioral change sustains and enhances the usage and success of products or services. In sharp contrast, myopic growth strategies depend on introducing more product features and functions without regard to a

consumer's behavior or continued engagement over time. Engaging behavioral change through the understanding of human behavior is a powerful design strategy that provides a competitive advantage.

By age
21,
the average
American will
have spent
more than
10,000
hours playing
video games.

Playing with Money

There are several examples of successful products and services that use or have used gaming principles to achieve market success. One example is Mint.com, a financial management tool that leverages gam-

ing principles to successfully capture and expand its market. Following its launch in 2007, Mint.com fundamentally changed the experience of financial management, by making the tracking of personal finances fun. In so doing, Mint.com created a new market, targeting people who viewed financial management as a formidable task without ever achieving tangible results.

The service rewards users for activities that keep their "financial fitness" in check, similar to how gamers earn achievements in video games. By saving money, avoiding bank fees, or coming in under budget, the user collects Mint points that contribute to a total financial score. Users identify financially responsible behaviors (the right behavior) and avoid financially irresponsible behaviors (the wrong behaviors) to maximize points received while competing with others with similar goals. Visual feedback informs users on how to improve their financial performance, and ultimately achieve their financial goals.

While other companies tried to compete with more sophisticated features and the latest financial add-ons, Mint.com beat the competition by creating a product based on understanding human behavior and changing that behavior. Intuit, the makers

of Quicken, recognized that they were losing their competitive advantage to a start-up targeting a new and growing demographic and acquired Mint.com for \$170 million in 2009.



4 Critical Attributes For Creating Behavioral Change

Using gaming principles to change people's behavior is not limited to any one sector. Creating new products and services that enable positive behavioral change applies to all industries. However, it requires a thorough understanding of that sector's Hierarchy of Needs. In order to maximize consumer engagement and achieve brand loyalty in any industry, utilizing gaming elements to change behavior relies on four critical design attributes: entertaining, competitive, visual, and rewarding.

If there is anything that we wish to change in the other, we should first examine it and see whether it is not, something that could better be changed in ourselves.

- Carl Jung

1. Entertaining

Make it fun and entertaining. What if your health insurance company decided to use gaming principles to create a health-care experience that was actually fun? Nintendo's Wii console engages people in exercise through a new and entertaining game experience. Exercise is a by-product of the experience, which is perceived as play rather than work. Nintendo effectively converted "no pain, no gain" into "have fun, will exercise." The American Heart Association and Nintendo recently announced a first-of-its-kind strategic partnership designed to help people create healthy lifestyles through physically active play.

2. Competitive

Make it competitive for users. Nike+ is a small device that records the distance and pace of a walk or run. Nike+ also allows runners to meet and challenge other runners, ask ques-

tions, and give feedback. The corresponding Nike+ website includes a user-generated challenge gallery, a route naming tool, iPod compatibility, a distance-traveled club, and fastest 5K club. Imagine the impact if utilities giant PG&E used their smart meters to create neighborhood competitions that incentivized lower energy consumption, where competing households could earn discounts on their monthly bill?

There are only two mistakes, one can make, along the road to truth;

Not going all the way, and not starting.

- Buddha

3. Visual

Make it visual. When Toyota began visualizing fuel consumption for drivers in their Prius models, they created a "fuel economy game," allowing the driver to minimize gas usage with real time information. The phenomenon is known as the Prius Effect. How might household appliance manufacturers, such as GE, tap into such insights from the auto-industry to not only sell more products but help promote environmental consciousness while doing so?

4. Rewarding

Make it rewarding. Research shows that financial rewards are not effective at encouraging sustained, long-term behavior change. Rewards that create social value tied to a meaningful cause are more effective over the long term and have a greater likelihood of encouraging others to do the same. RecycleBank is a web-based service designed to promote recycling. Families accrue points based on the weekly amount of materials recycled; these points can be redeemed for discounts at over 1500 national businesses. Freerice.com is an

If those committed to the quest fail, they will be forgiven.

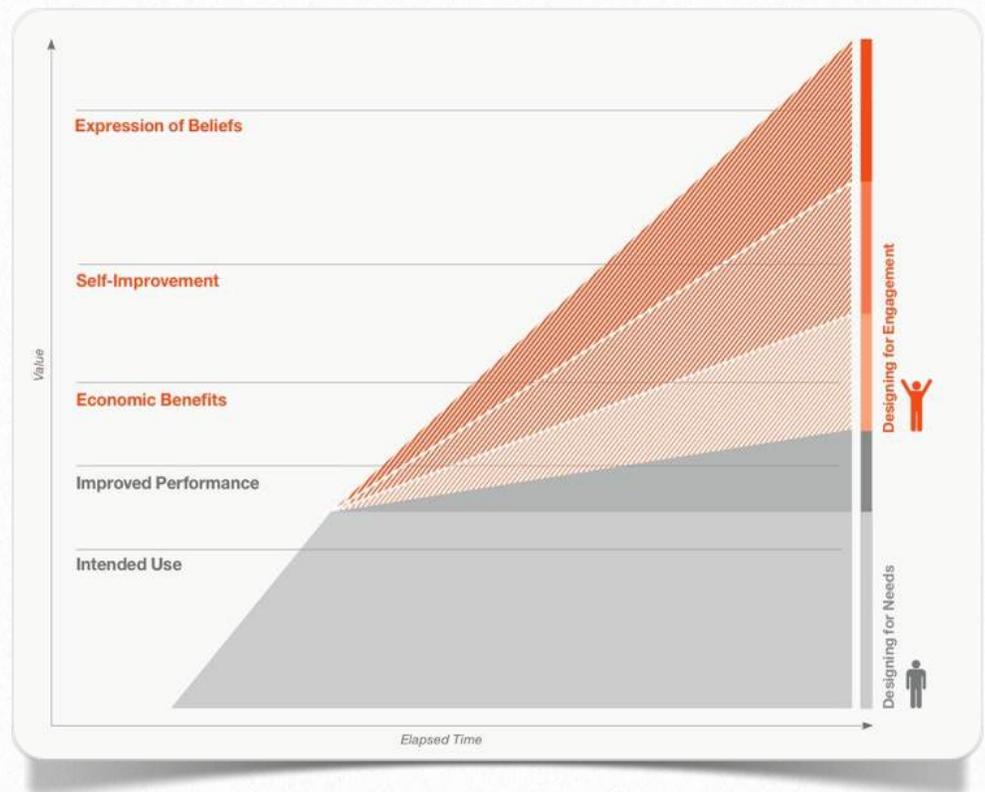
When lost, they will find another way.

The moral imperative of humanism is the endeavor alone, whether successful or not;

Provided the effort is honorable, and the failure memorable.

- E. O. Wilson

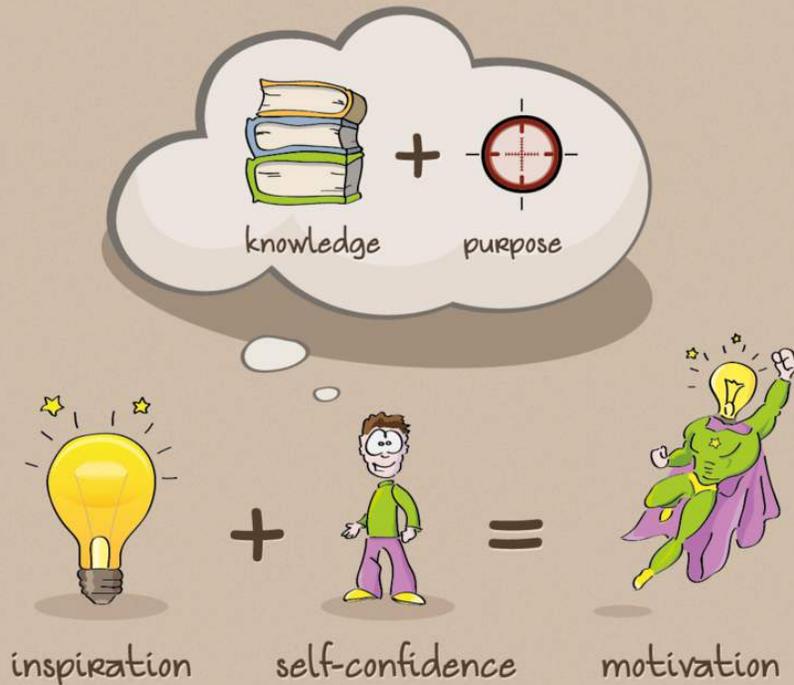
online trivia game that donates rice to the United Nations World Food Program for each correctly answered question, and has donated over 80 billion grains in just 3 years.



Well Played

Inspiring positive behavioral change is a key driver of customer engagement, brand loyalty, and sustained market growth. The explosive growth of social gaming is well timed to intersect with the need for new platforms that incorporate behavioral change into design strategy. Designing products, services, and business models for behavioral change is the new competitive advantage. Gaming has the power to instigate behavioral change, and the potential to impact the solutions to some of the world's most pressing social problems, such as healthcare and philanthropy.

INSPIRATION vs. MOTIVATION



According to Wikipedia:

- * **Inspiration** refers to an unconscious burst of creativity in a literary, musical, or other artistic endeavour.
- * **Confidence** is generally described as a state of being certain either that a hypothesis or prediction is correct or that a chosen course of action is the best or most effective. When one does not dwell on negative consequences, one can be more 'self-confident' because one is worrying far less about failure or the disapproval of others following potential failure.
- * **Motivation** is the driving force by which humans achieve their goals.

1 “The only way of finding the limits of the possible is by going beyond them into the impossible.”

Arthur C. Clarke (1917 – 2008)
British science fiction author,
inventor and futurist

Johann W. Goethe (1749 – 1832)
German writer, pictorial artist, biologist
theoretical physicist, and polymath

2 “If you would create something,
you must be something.”

3 “Great spirits have always encountered
violent opposition from mediocre minds.”

Albert Einstein (1879 – 1955)
German theoretical physicist,
“The father of modern physics”

Movie 3.5 Why Do We Fall - Motivational Video



Rocky Balboa (Sylvester Stallone), Any Given Sunday (Al Pacino), Coach Carter (Rick Gonzalez), The Great Dictator (Charlie Chaplin), Will Smith, Eric Thomas, Arnold Schwarzenegger, Michael Jordan, Derrick Rose, Ray Lewis, Muhammad Ali.

Breaking Out



Breaking Out of the Innovation Box

by John D. Wolpert

As the economy boomed in the late 1990s, corporations went on an innovation binge. They poured money into programs for generating fresh ideas, pioneering new technologies, and promoting entrepreneurship and creativity among employees. They launched venture capital arms and new-business incubators. They recruited freethinking executives who weren't afraid to rock the corporate boat. They brought in creativity consultants to spur out-of-the-box thinking.

And where are those efforts today? Many of them have been scaled back, mothballed, or disbanded altogether. As the economy cooled at the start of this decade, companies quickly cut off the flow of funds into innovation efforts. What seemed like a mandatory expense just months before suddenly seemed discretionary. Even the rhetoric of business took a turn: Executives began to speak less about “creating the future” and more about “protecting the core.”

What happened over the last few years is not an anomaly. It’s business as usual. In most companies, investments in innovation follow a boom-bust cycle. For a time, the cash flows. Then, as companies rethink their priorities, the taps go dry. Annual surveys conducted by the Industrial Research Institute confirm the cyclicity of corporate innovation.

In the early 1980s, surveyed executives said that innovation was their foremost priority. By the late 1980s, most executives reported little interest in innovation. Similarly, in the early 1990s, innovation didn’t rate among the top five corporate priorities, but it was back at the top of the list by the late 1990s. Harvard Business School professor Henry Chesbrough has identified a similar pattern in the 1960s.

Of course, no business initiative should be immune to changes in market conditions or company strategies. Corporate innovation programs should be subject to careful, hard-nosed evaluation, and those that don’t promise adequate returns should be curtailed or refocused. But that is not what is going on here. Rather, the way corporations invest in innovation is fundamentally unreliable.

When innovation budgets are slashed, strong projects are abandoned along with the weak. The consequences can be devastating. Promising initiatives are cut off just when they are about to bear fruit. Highly touted training programs are discontinued with little explanation, stirring employee cynicism. Expensive labs are closed, and talented researchers and designers are reassigned or laid off. Partnership agreements costing millions in legal fees are thrown away. Worst of all, the perceived failure of the investments often creates organizational skepticism about and resistance to future innovation initiatives. Consequently, when disruptive changes in the competitive landscape come, companies are caught flat-footed.

Innovation is always a risky pursuit, with an uncertain and often distant payoff. But must that fact doom it to erratic invest-

ment? Or can innovation become a staple corporate priority as, for example, quality has become?

My belief is that stability can be brought to corporate innovation and that the result will be much greater strategic gains and much stronger returns on investment. But sustainable innovation requires an entirely new approach. Instead of being a largely isolated process—carried out often with considerable secrecy—innovation needs to become more open.

Initiatives must gain access to and leverage from the insights, capabilities, and support of other companies without compromising legitimate corporate secrets. As counterintuitive as this may sound, innovation must become part of the ongoing commerce that takes place among companies. Only then will it be protected from both the ax of short-term cost reduction and the faddishness born of easy money.

Trapped Inside

First, let me explain what I mean by “innovation.” I’m not talking about processes for making improvements to existing products and services. And I’m not talking about purely technical invention. Innovation, as I use the term, means pursuing radical new business opportunities, exploiting new or

potentially disruptive technologies, and introducing change into the core concept of your business. It’s those efforts that businesses have found hard to sustain, even though it is now widely acknowledged that they have become increasingly critical to companies’ long-term viability. In fact, nearly 50% of U.S. economic growth at the end of the 1990s came from lines of business that didn’t exist a decade before, as a 1999 study in *The Economist* showed.

Successful innovation requires what the authors of *Radical Innovation* have called “exploration competencies”—the ability to harvest ideas and expertise from a wide array of sources. For a company, that means bringing in insights and know-how not just from outside parties but from other businesses. The need for external perspectives seems almost self-evident: If a company stays locked inside its own four walls, how will it be able to uncover and exploit opportunities outside its existing businesses or beyond its current technical or operational capabilities? Yet perhaps even more self-evident to many companies is the need to lock in their innovation initiatives to protect them from competitors.

This urge to keep innovation inside is reinforced by both traditional and current thinking on the subject. If you look at the exam-

ples of innovation cited in books and articles, you'll find that almost all of them describe the exploits of a group of employees within a single company—how they stumble on a new opportunity, struggle to overcome company politics and other internal impediments, and ultimately either succeed or fail to commercialize their discovery.

Most theories of innovation are similarly introspective. Gifford Pinchot III coined the term “intrapreneuring” in the 1970s; the very name implies an internal focus. Rensselaer Polytechnic’s Severino Center for Technological Entrepreneurship recommends building internal innovation hubs. Many management gurus suggest that innovation be thought of as a core competency—a distinctive capability that a company nurtures within itself and protects from outside competitors. Even the concept of “knowledge brokering,” which sounds like it should involve collaboration between companies and across industries, is most often described in terms of individuals and groups working within one company. more

But organizing innovation as a purely internal initiative pretty much guarantees that cyclical pressures will lead executives to cut back or discontinue funding. No matter

how loudly a CEO proclaims the need to embed innovation and creativity in the corporate culture, the fact is that such initiatives are cut when times get tough or priorities change.

Typical is the experience of a large telecom company’s ill-fated innovation program, which was called the Opportunity Discovery Department (ODD). Launched in 1995, its mission was to uncover promising ideas in the company, spread insights and expertise across the organization, and translate technologies from R&D labs into commercial opportunities. The ODD team received generous funding and considerable management support. Lab directors, and even the CEO himself, repeatedly encouraged managers and employees to collaborate with the group. Nevertheless, the team lost momentum. By 1999, the ODD had ceased operations.

Many internal innovation initiatives have shared the ODD’s fate. They last, on average, about three or four years. In most cases, that is not enough time to discover strong new business ideas and refine, test, launch, and nurture them to success. A study of innovation at Xerox that Chesbrough did showed that over a 35-year period its most successful spin-offs took an average of 7.5 years to generate an accept-

able return on investment. That didn't include the time spent researching and developing the underlying technologies. However, the innovation programs that generated those spin-offs survived an average of only four years before they were shut down and replaced by new ones. Often, those initiatives were terminated even though the spin-offs they had generated had notched up substantial financial returns. As one Xerox executive explains: "We are a \$20 billion company. To be financially interesting to us, an initiative must reach at least \$100 million in revenues within three years." That argument, which will sound familiar to many executives, explains why large companies fail to sustain even lucrative innovation programs.

There's another problem with inward-looking innovation initiatives: They often fail to capitalize on viable ideas because the ideas don't fit with the company's strategy or capabilities. No company is smart enough to know what to do with every new opportunity it finds, and no company has enough resources to pursue all the opportunities it might execute. Internal initiatives routinely leave a trail of orphans—promising ideas that have no natural home within the company. If the number of orphans produced becomes too large relative to the successes—and it almost always does at

large companies—participants' interest in the initiative falls.

No company is smart enough to know what to do with every new opportunity it finds, and no company has enough resources to pursue all the opportunities it might execute.

Spinning out orphans as separate entities is possible but, despite the hype surrounding spin-offs, it rarely happens. Few companies have the patience or skills to do them well and, in any case, companies routinely kill spin-off proposals because they fear losing the intellectual property to outsiders. In the past, some orphans escaped corporate labs, falling into the hands of others both eager and able to capitalize on them.

In the information technology business, for example, breakthrough technologies like Ethernet, the mouse, and the graphical user interface were commercialized by companies that did not develop them. But with aggressive patenting practices, that will happen much less frequently in the future. As Bell Labs' new-ventures chief, Thomas Uhlman, famously said in 1999, "No more Intels are allowed to escape." Unfortunately, that means that as long as innovation is trapped inside individual companies, many promising technologies and

business ideas will simply die without ever being exploited.

Innovation as Commerce

No company is, of course, hermetically sealed. Outside perspectives and competencies flow into and out of organizations through many routes: partnerships with universities, alliances and acquisitions, external venture investments, recruiting and hiring, customers and suppliers, and the relationships and curiosity of individual employees. These sources of external influence are valuable and important. It could be argued, in fact, that they have played pivotal roles in all instances of corporate innovation.

But they're not enough. Their informality, haphazardness, and unpredictability make them unreliable foundations for sustained innovation. New hires, for instance, may come into a company with brilliant, radical ideas, but they usually find it difficult if not impossible to promote those ideas in an alien, and often resistant, culture. Academic cooperation usually centers on basic science—one might argue that looking for new business ideas in academia is like fishing for marlin in a trout stream. Customers and suppliers, as Harvard Business School's Clayton Christensen has shown,

tend to provide limited insight beyond incremental improvements to existing lines. Even more formal means for capitalizing on external business ideas, from venture capital arms to joint ventures to M&A programs, are rarely dependable as sources of innovation. They tend to be so deterministic—so shaped by internal strategies, politics, and secrecy concerns—that they perpetuate a company's existing businesses rather than open new opportunities. Moreover, the search for outside partners often happens late in the innovation process, when the business opportunity is well defined, so they have little or no influence over the development and refinement of the idea. Successful innovation depends on involving partners early in the exploration of opportunities.

What we need to do is make innovation a natural element of the commerce that takes place among businesses. Finding ways for two or more companies to actively share ideas, technologies, and other capabilities early and often is the best way to protect projects from the swings in interest and funding that inevitably occur in individual organizations. If we could find a way to do this without risking the unauthorized appropriation of intellectual property, businesses would be able to more quickly spot

and exploit new growth opportunities.
more

In an ideal world, where there is no fear of competitors, here's how it would work: If company A develops a great idea that it can't commercialize, it can more efficiently shift it to company B, which has the right skills, particularly if the two businesses strike a relationship at a very early stage of idea development. If company C lacks two particular capabilities needed to bring a technology to market, it can form a partnership with companies D and E to gain the required resources. If companies F, G, and H share a common interest in a certain business opportunity but lack the cash or strategic focus to pursue it independently, they can pool their investments. When innovation becomes part of commerce, money and attention flow naturally to where they're needed when they're needed.

The case of IBM's alphaWorks, which I oversaw for two years in the late 1990s, shows the power of open innovation. In early 1996, IBM's Internet Division realized that the company had developed many promising software programs in research that had yet to be commercialized. As an experiment, the division created a public Web site called alphaWorks on which it

posted the programs, hoping that outside companies and developers would contribute valuable ideas about bringing them to market. Anyone could download the programs with a 90-day evaluation license from the company. As word spread that IBM was allowing first-cut versions of its research technology to be used for free, hundreds of thousands of early adopters, innovators, and entrepreneurs came to the site to download the software. Many of these users were technically savvy developers and businesspeople who had the skills to see the opportunities in that raw code.

One IBM researcher, who had been trying for years to find a compelling use for his program, received ideas from a developer at another company through alphaWorks. That helped him take his research in a new direction, eventually leading to the development of a critical component for the multibillion-dollar business integration-systems market. When thousands of people began to download that program, an IBM product group quickly decided to develop and release a full-fledged version. Within eight weeks, the once-ignored program had become a key IBM product. Without this kind of early external support, the researcher's work might still be waiting to go to market today.

Launched six years ago, alphaWorks is still a staple of IBM's innovation agenda. Its productivity is high: About 40% of the technologies on the site make it to market as new offerings, new features in existing products, or new technical standards. Unlike other innovative programs that die after the original champion leaves, the group has survived several management changes and divisional reorganizations. Indeed, it would be hard to kill alphaWorks because so many people in IBM rely on it to do their jobs, and nobody would want to sever connections to this large, influential, and involved community. It remains the best way for many of IBM's engineers to get recognition, feedback, and support for their ideas. It also has the attention of IBM's marketing people, who were initially stunned to find current and potential customers asking them when alphaWorks technologies would become commercially available. Most of IBM's strategic software initiatives since 1996 have started on alphaWorks.

Why don't competitors simply help themselves to these ideas? For one thing, patents and licenses are easy to enforce. Putting the ideas on a popular Web site (often with significant press coverage) means that everyone knows where they came from. Thanks to download logs and regis-

tration, anyone foolish enough to download a technology and then try to bring something similar to market would be caught red-handed in violation of the license and the patent.

IBM's alphaWorks—and similar initiatives like Xerox's new alphaAvenue— have limited applicability, of course. Not every business innovation benefits from public exposure as much as software development does. But they clearly show how a successful innovation marketplace that crosses the border of the firm perpetuates itself, gaining increasing attention and support as it delivers real economic benefits to many different participants inside and outside the company. The broader question is: How do you break down the barriers to sharing information across companies so you can create more generalized sustainable innovation markets without giving your competitors an advantage?

A New Kind of Go-Between

The answer, I believe, lies in a practice that has long been a central element in commerce: the use of independent intermediaries to facilitate the exchange of sensitive information among companies. Since the Middle Ages, businesspeople have drawn on trusted middlemen to share confidential

information without revealing the principals' identities or motives or otherwise compromising their interests. Today, businesses continue to use intermediaries for many kinds of transactions. Executive search firms, for instance, play a crucial role in recruiting top managers. They allow job seekers to remain anonymous during the early stages of a search, and they protect businesses from disclosing their hiring plans to rivals.

In a similar way, intermediaries could facilitate the exchange of innovation information while protecting companies from divulging their interests and plans to competitors. They could become, in effect, innovation headhunters. A company might, to take a simple example, entrust an intermediary with the details of a particular technology it has developed as well as its need for outside capabilities to commercialize it. The intermediary would then share the information with other intermediaries in the hope of finding appropriate partners. At no point—until a formal disclosure agreement is forged—would any of the information be shared with the companies the intermediaries represent. The intermediaries could be trusted to maintain confidentiality because it is simply in their business interest: If they ever violate the terms of an

arrangement, no company would hire them again. more

Using intermediaries for innovation is not without precedent in U.S. business. In their book *Information Markets: What Businesses Can Learn from Financial Innovation*, William J. Wilhelm, Jr., and Joseph D. Downing describe how intermediaries spurred innovation in financial services in the early part of the twentieth century. The intermediaries, including bankers such as J.P. Morgan, assisted in creating markets for financial information. They used personal relationships to gather and share information discreetly with people in their network who could help exploit a new opportunity or a new way of handling financial transactions. “Innovation flourished,” the authors write, “in the context of close relationships and powerful intermediaries that tempered competition but protected easily copied ideas and products. This protection encouraged financial innovation by more nearly ensuring a fair return on investment in intellectual property.”

Even today, a number of individuals and organizations play intermediary roles in facilitating innovation. Management consultancies like Accenture and Cap Gemini Ernst & Young operate innovation labs, where clients can share ideas and discuss techno-

logical advances and other new research. Ideo, the design firm, often creates new products by mixing together the ideas and technologies of different clients. As a business development consultancy, ISIS International has for more than 20 years acted as an intermediary to cross-fertilize business opportunities for its clients.

ISIS, for example, recently helped the chemical division of a major U.S. oil company find commercial applications for a new molecule it had developed. Although the molecule seemed promising, its potential applications were not immediately obvious to the division's R&D staff. They hired ISIS to search outside the company for possibilities. ISIS convened a brainstorming summit with 12 of its contacts in industries ranging from waste treatment and building materials to cosmetics and household-cleaning products. The panel quickly identified 11 business opportunities for the molecule, with potential revenues of \$150 million. One of the companies represented on the panel went on to pursue a joint project with the oil company and introduced a new consumer product based on the molecule. Without the catalytic role ISIS played, the project may have been killed before it had the chance to be successful.

Unfortunately, most consulting firms consider sharing perspectives and competencies among clients to be taboo. Consultants, therefore, are unlikely to be a major source of innovation intermediaries. But there are plenty of other players operating in and around the innovation process who could function as intermediaries. Lawyers and venture capitalists, for instance, often learn about best practices, ideas for new inventions, and new ways of doing business from competing and noncompeting companies. Trade show organizers and trade association representatives frequently conduct high-level meetings between potential buyers, suppliers, and partners, and identify opportunities for synergy within and across industries. Investment bankers are often called upon to find new applications for technologies developed by companies or government agencies.

But perhaps the most promising pool of potential intermediaries is the rapidly growing population of baby boomer retirees who have deep expertise in particular industries and technologies, hold the trust of the companies they worked for, and don't want to spend all their time playing golf. With the right training in such disciplines as knowledge brokering, business development, and law, these former corporate executives, scientists, and engineers would

make ideal agents. And by using the Internet to communicate and share information with their clients and one another, they could position themselves in the idea flow without abandoning their other retirement pursuits.

Perhaps the most promising pool of potential intermediaries is the rapidly growing population of baby boomer retirees.

Ultimately, I believe we will see the emergence of formal networks, perhaps even companies of such agents. Businesses would pay an annual fee to hire a group of intermediaries with the appropriate backgrounds and contacts, briefing them about their internal innovation programs. Bound by nondisclosure agreements, the agents would share information with other agents representing other companies. The agents would signal their clients when they thought sharing data would be worthwhile, and they would help structure the terms of the engagement.

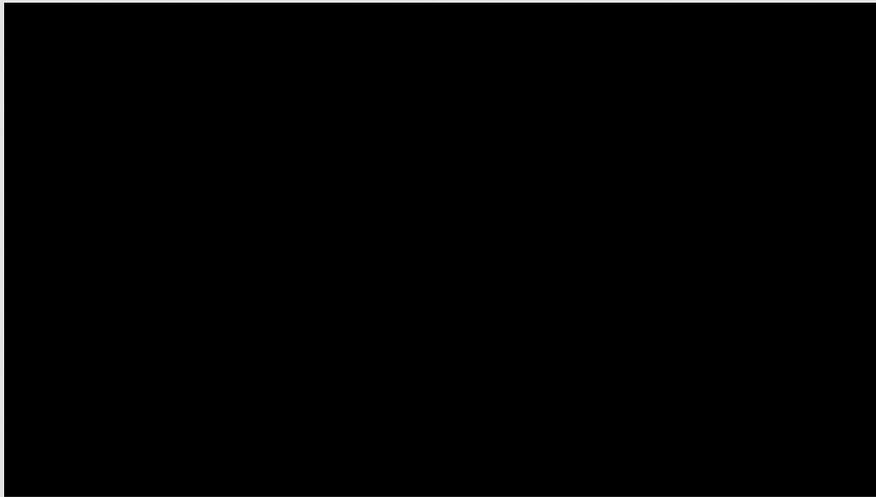
Whenever it was mutually beneficial, inter-company innovation relationships would form early and often through this relatively safe, controlled network. Sitting at the intersection of many companies and industries, a network of innovation intermediaries would be in a unique position to visualize

new opportunities synthesized from insights and technologies provided by several companies—ideas that might never occur to companies working on innovation programs on their own.

The final shape of such intermediation networks is impossible to predict. In fact, other means of collaboration may develop. We may, for instance, see the emergence of new Web services that automate some of the basic information exchange essential to creative partnerships. Or we may see companies offer data-mining services that generate new business ideas by analyzing information collected from several companies at once without violating privacy or exposing secrets. What's certain is that, in an increasingly complex world, the biggest growth opportunities will come more often at the intersection of multiple companies than from single visionaries acting on their own. It's important now that companies break out of their innovation boxes and find ways to link their innovation efforts. In the years ahead, the greatest corporate innovation may arise in the innovation process itself.

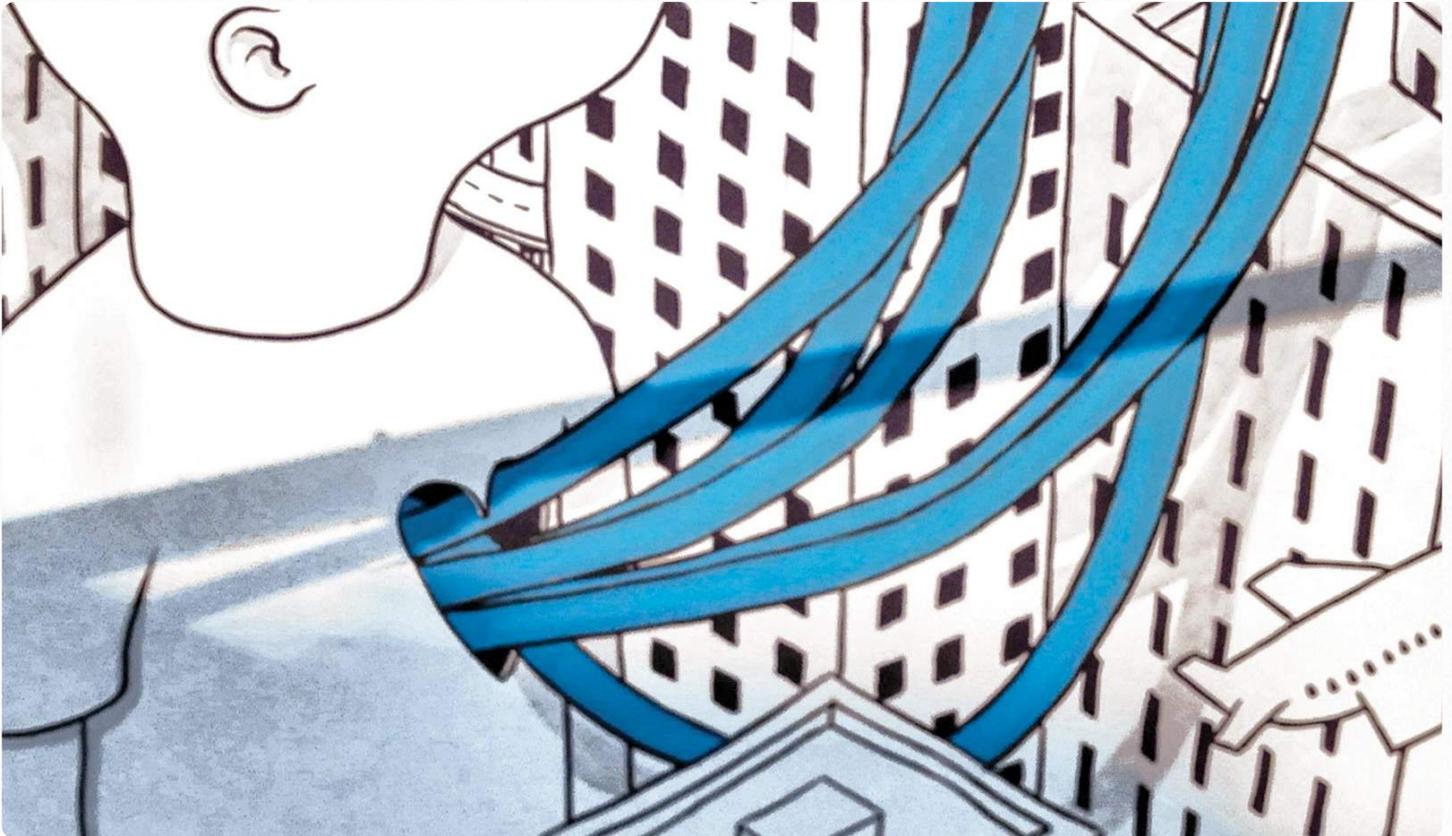
Sitting at the intersection of many companies and industries, a network of innovation intermediaries would be in a unique position to visualize new opportunities.

Movie 3.6 Motivation - A Thought For Game Developers



A quick video to help remind us all to keep our boat pointed in the right direction and to never stop paddling. Big thanks to Michael Kuzel for the excellent video editing and graphics.

Behavior Economics



From “Economic Man” to Behavioral Economics

by Justin Fox

When we make decisions, we make mistakes. We all know this from personal experience, of course. But just in case we didn't, a seemingly unending stream of experimental evidence in recent years has documented the human penchant for error. This line of research—dubbed heuristics and biases, although you may be more familiar with its offshoot, behavioral economics—has become the dominant academic approach to understanding decisions. Its practitioners have had a major influence on business, government, and financial markets. Their books—*Predictably Irrational*; *Thinking, Fast and Slow*; and *Nudge*, to

name three of the most important—have suffused popular culture.

So far, so good. This research has been enormously informative and valuable. Our world, and our understanding of decision making, would be much poorer without it.

It is not, however, the only useful way to think about making decisions. Even if you restrict your view to the academic discussion, there are three distinct schools of thought. Although heuristics and biases is currently dominant, for the past half century it has interacted with and sometimes battled with the other two, one of which has a formal name—decision analysis—and the other of which can perhaps best be characterized as demonstrating that we humans aren't as dumb as we look.

Adherents of the three schools have engaged in fierce debates, and although things have settled down lately, major differences persist. This isn't like David Lodge's aphorism about academic politics being so vicious because the stakes are so small. Decision making is important, and decision scholars have had real influence.

This article briefly tells the story of where the different streams arose and how they have interacted, beginning with the explo-

sion of interest in the field during and after World War II (for a longer view, see "A Brief History of Decision Making," by Leigh Buchanan and Andrew O'Connell, HBR, January 2006). The goal is to make you a more informed consumer of decision advice—which just might make you a better decision maker.

The Rational Revolution

During World War II statisticians and others who knew their way around probabilities (mathematicians, physicists, economists) played an unprecedented and crucial role in the Allied effort. They used analytical means—known as operational research in the UK and operations research on this side of the Atlantic—to improve quality control in manufacturing, route ships more safely across the ocean, figure out how many pieces antiaircraft shells should break into when they exploded, and crack the Germans' codes.

After the war hopes were high that this logical, statistical approach would transform other fields. One famous product of this ambition was the nuclear doctrine of mutual assured destruction. Another was decision analysis, which in its simplest form amounts to (1) formulating a problem, (2)

listing the possible courses of action, and (3) systematically assessing each option. Historical precedents existed—Benjamin Franklin had written in the 1770s of using a “Moral or Prudential Algebra” to compare options and make choices. But by the 1950s there was tremendous interest in developing a standard approach to weighing options in an uncertain future.

The mathematician John von Neumann, who coined the term mutual assured destruction, helped jump-start research into decision making with his notion of “expected utility.” As outlined in the first chapter of his landmark 1944 book *Theory of Games and Economic Behavior*, written with the economist Oskar Morgenstern, expected utility is what results from combining imagined events with probabilities. Multiply the likelihood of a result against the gains that would accrue, and you get a number, expected utility, to guide your decisions.

It’s seldom that simple, of course. Von Neumann built his analysis around the game of poker, in which potential gains are easily quantifiable. In lots of life decisions, it’s much harder. And then there are the probabilities: If you’re uncertain, how are you supposed to know what those are?

The winning answer was that there is no one right answer—everybody has to wager a guess—but there is one correct way to revise probabilities as new information comes in. That is what has become known as Bayesian statistics, a revival and advancement of long-dormant ideas (most of them the work not of the English reverend Thomas Bayes but of the French mathematical genius Pierre-Simon Laplace) by a succession of scholars starting in the 1930s. For the purposes of storytelling simplicity I’ll mention just one: Leonard Jimmie Savage, a statistics professor whose 1954 book *The Foundations of Statistics* laid out the rules for changing one’s probability beliefs in the face of new information.

One early and still-influential product of this way of thinking is the theory of portfolio selection, outlined in 1952 by Savage’s University of Chicago student Harry Markowitz, which advised stock pickers to estimate both the expected return on a stock and the likelihood that their estimate was wrong. Markowitz won a Nobel prize for this in 1990.

The broader field of decision analysis began to come together in 1957, when the mathematician Howard Raiffa arrived at Harvard with a joint appointment in the

Business School and the department of statistics. He soon found himself teaching a statistics course for business students with Robert Schlaifer, a classics scholar and fast learner who in the postwar years taught pretty much whatever needed teaching at HBS. The two concluded that the standard statistics fare of regressions and P values wasn't all that useful to future business leaders, so they adopted a Bayesian approach. Before long what they were teaching was more decision making than statistics. Raiffa's decision trees, with which students calculated the expected value of the different paths available to them, became a staple at HBS and the other business schools that emulated this approach.

The actual term "decision analysis," though, was coined by Ronald Howard, an MIT electrical engineer and an expert in statistical processes who had studied with some of the leading figures in wartime operations research at MIT and crossed paths with Raiffa in Cambridge. While visiting Stanford for the 1964–1965 academic year, Howard was asked to apply the new decision-making theories to a nuclear power plant being contemplated at General Electric's nuclear headquarters, then located in San Jose. He combined expected utility and Bayesian statistics with

computer modeling and engineering techniques into what he dubbed decision analysis and some of his followers call West Coast decision analysis, to distinguish it from Raiffa's approach. Howard and Raiffa were honored as the two founding fathers of the field at its 50th-anniversary celebration last year.

Irrationality's Revenge

Almost as soon as von Neumann and Morgenstern outlined their theory of expected utility, economists began adopting it not just as a model of rational behavior but as a description of how people actually make decisions. "Economic man" was supposed to be a rational creature; since rationality now included assessing probabilities in a consistent way, economic man could be expected to do that, too. For those who found this a bit unrealistic, Savage and the economist Milton Friedman wrote in 1948, the proper analogy was to an expert billiards player who didn't know the mathematical formulas governing how one ball would carom off another but "made his shots as if he knew the formulas."

Somewhat amazingly, that's where economists left things for more than 30 years. It wasn't that they thought everybody made

perfect probability calculations; they simply believed that in free markets, rational behavior would usually prevail.

The question of whether people actually make decisions in the ways outlined by von Neumann and Savage was thus left to the psychologists. Ward Edwards was the pioneer, learning about expected utility and Bayesian methods from his Harvard statistics professor and writing a seminal 1954 article titled “The Theory of Decision Making” for a psychology journal. This interest was not immediately embraced by his colleagues—Edwards was dismissed from his first job, at Johns Hopkins, for focusing too much on decision research. But after a stint at an Air Force personnel research center, he landed at the University of Michigan, a burgeoning center of mathematical psychology. Before long he lured Jimmie Savage to Ann Arbor and began designing experiments to measure how well people’s probability judgments followed Savage’s axioms.

A typical Edwards experiment went like this: Subjects were shown two bags of poker chips—one containing 700 red chips and 300 blue chips, and the other the opposite. Subjects took a few chips out of a random bag and then estimated the likeli-

hood that they had the mostly blue bag or the mostly red one.

Say you got eight red chips and four blue ones. What’s the likelihood that you had the predominantly red bag? Most people gave an answer between 70% and 80%. According to Bayes’ Theorem, the likelihood is actually 97%. Still, the changes in subjects’ probability assessments were “orderly” and in the correct direction, so Edwards concluded in 1968 that people were “conservative information processors”—not perfectly rational according to the rules of decision analysis, but close enough for most purposes.

In 1969 Daniel Kahneman, of the Hebrew University of Jerusalem, invited a colleague who had studied with Edwards at the University of Michigan, Amos Tversky, to address his graduate seminar on the practical applications of psychological research. Tversky told the class about Edwards’s experiments and conclusions. Kahneman, who had not previously focused on decision research, thought Edwards was far too generous in his assessment of people’s information-processing skills, and before long he persuaded Tversky to undertake a joint research project. Starting with a quiz administered to their fellow mathematical psychologists at a confer-

ence, the pair conducted experiment after experiment showing that people assessed probabilities and made decisions in ways systematically different from what the decision analysts advised.

“In making predictions and judgments under uncertainty, people do not appear to follow the calculus of chance or the statistical theory of prediction,” they wrote in 1973. “They rely on a limited number of heuristics which sometimes yield reasonable judgments and sometimes lead to severe and systematic errors.”

Heuristics are rules of thumb—decision-making shortcuts. Kahneman and Tversky didn’t think relying on them was always a bad idea, but they focused their work on heuristics that led people astray. Over the years they and their adherents assembled a long list of these decision-making flaws—the availability heuristic, the endowment effect, and so on.

As an academic movement, this was brilliantly successful. Kahneman and Tversky not only attracted a legion of followers in psychology but also inspired a young economist, Richard Thaler, and with help from him and others came to have a bigger impact on the field than any outsider since von Neumann. Kahneman won an

economics Nobel in 2002—Tversky had died in 1996 and thus couldn’t share the prize—and the heuristics-and-biases insights relating to money became known as behavioral economics. The search for ways in which humans violate the rules of rationality remains a rich vein of research for scholars in multiple fields.

The implications for how to make better decisions, though, are less clear. First-generation decision analysts such as Howard Raiffa and Ward Edwards recognized the flaws described by Kahneman and Tversky as real but thought the focus on them was misplaced and led to a fatalistic view of man as a “cognitive cripple.” Even some heuristics-and-biases researchers agreed. “The bias story is so captivating that it overwhelmed the heuristics story,” says Baruch Fischhoff, a former research assistant of Kahneman and Tversky who has long taught at Carnegie Mellon University. “I often cringe when my work with Amos is credited with demonstrating that human choices are irrational,” Kahneman himself wrote in *Thinking, Fast and Slow*. “In fact our research only showed that humans are not well described by the rational-agent model.” And so a new set of decision scholars began to examine whether those shortcuts our brains take are actually all that irrational.

When Heuristics Work

That notion wasn't entirely new. Herbert Simon, originally a political scientist but later a sort of social scientist of all trades (the economists gave him a Nobel in 1978), had begun using the term "heuristic" in a positive sense in the 1950s. Decision makers seldom had the time or mental processing power to follow the optimization process outlined by the decision analysts, he argued, so they "satisficed" by taking shortcuts and going with the first satisfactory course of action rather than continuing to search for the best.

Simon's "bounded rationality," as he called it, is often depicted as a precursor to the work of Kahneman and Tversky, but it was different in intent. Whereas they showed how people departed from the rational model for making decisions, Simon disputed that the "rational" model was actually best. In the 1980s others began to join in the argument.

The most argumentative among them was and still is Gerd Gigerenzer, a German psychology professor who also did doctoral studies in statistics. In the early 1980s he spent a life-changing year at the Center for Interdisciplinary Research in the German city of Bielefeld, studying the rise of prob-

ability theory in the 17th through 19th centuries with a group of philosophers and historians. One result was a well-regarded history, *The Empire of Chance*, by Gigerenzer and five others (Gigerenzer's name was listed first because in keeping with the book's theme, the authors drew lots). Another was a growing conviction in Gigerenzer's mind that the Bayesian approach to probability favored by the decision analysts was, although not incorrect, just one of several options.

When Gigerenzer began reading Kahneman and Tversky, he says now, he did so "with a different eye than most readers." He was, first, dubious of some of the results. By tweaking the framing of a question, it is sometimes possible to make apparent cognitive illusions go away. Gigerenzer and several coauthors found, for example, that doctors and patients are far more likely to assess disease risks correctly when statistics are presented as natural frequencies (10 out of every 1,000) rather than as percentages.

But Gigerenzer wasn't content to leave it at that. During an academic year at Stanford's Center for Advanced Study in the Behavioral Sciences, in 1989–1990, he gave talks at Stanford (which had become Tversky's academic home) and UC Berkeley

(where Kahneman then taught) fiercely criticizing the heuristics-and-biases research program. His complaint was that the work of Kahneman, Tversky, and their followers documented violations of a model, Bayesian decision analysis, that was itself flawed or at best incomplete. Kahneman encouraged the debate at first, Gigerenzer says, but eventually tired of his challenger's combative approach. The discussion was later committed to print in a series of journal articles, and after reading through the whole exchange, it's hard not to share Kahneman's fatigue.

Gigerenzer is not alone, though, in arguing that we shouldn't be too quick to dismiss the heuristics, gut feelings, snap judgments, and other methods humans use to make decisions as necessarily inferior to the probability-based verdicts of the decision analysts. Even Kahneman shares this belief to some extent. He sought out a more congenial discussion partner in the psychologist and decision consultant Gary Klein. One of the stars of Malcolm Gladwell's book *Blink*, Klein studies how people—firefighters, soldiers, pilots—develop expertise, and he generally sees the process as being a lot more naturalistic and impressionistic than the models of the decision analysts. He and Kahneman have together studied when going with the gut

works and concluded that, in Klein's words, "reliable intuitions need predictable situations with opportunities for learning."

Are those really the only situations in which heuristics trump decision analysis? Gigerenzer says no, and the experience of the past few years (the global financial crisis, mainly) seems to back him up. When there's lots of uncertainty, he argues, "you have to simplify in order to be robust. You can't optimize any more." In other words, when the probabilities you feed into a decision-making model are unreliable, you might be better off following a rule of thumb. One of Gigerenzer's favorite examples of this comes from Harry Markowitz, the creator of the decision analysis cousin known as modern portfolio theory, who once let slip that in choosing the funds for his retirement account, he had simply split the money evenly among the options on offer (his allocation for each was $1/N$). Subsequent research has shown that this so-called $1/N$ heuristic isn't a bad approach at all.

The State of the Art

The Kahneman-Tversky heuristics-and-biases approach has the upper hand right now, both in academia and in the public

mind. Aside from its many real virtues, it is the approach best suited to obtaining interesting new experimental results, which are extremely helpful to young professors trying to get tenure. Plus, journalists love writing about it.

Decision analysis hasn't gone away, however. HBS dropped it as a required course in 1997, but that was in part because many students were already familiar with such core techniques as the decision tree. As a subject of advanced academic research, though, it is confined to a few universities—USC, Duke, Texas A&M, and Stanford, where Ron Howard teaches. It is concentrated in industries, such as oil and gas and pharmaceuticals, in which managers have to make big decisions with long investment horizons and somewhat reliable data. Chevron is almost certainly the most enthusiastic adherent, with 250 decision analysts on staff. Aspects of the field have also enjoyed an informal renaissance among computer scientists and others of a quantitative bent. The presidential election forecasts that made Nate Silver famous were a straightforward application of Bayesian methods.

Those who argue that rational, optimizing decision making shouldn't be the ideal are a more scattered lot. Gigerenzer has a big

group of researchers at the Max Planck Institute for Human Development, in Berlin. Klein and his allies, chiefly in industry and government rather than academia, gather regularly for Naturalistic Decision Making conferences.

Academic decision scholars who aren't decision analysts mostly belong to the interdisciplinary Society for Judgment and Decision Making, which is dominated by heuristics-and-biases researchers. "It's still very much us and them, where us is Kahneman-and-Tversky disciples and the rest is Gerd and people who have worked with him," says Dan Goldstein, a former Gigerenzer student now at Microsoft Research. "It's still 90 to 10 Kahneman and Tversky." Then again, Goldstein—a far more diplomatic sort than his mentor—is slated to be the next president of the society.

There seems to be more overlap in practical decision advice than in decision research. The leading business school textbook, *Judgment in Managerial Decision Making*, by Harvard's Max Bazerman (and, in later editions, UC Berkeley's Don Moore), devotes most of its pages to heuristics and biases but is dedicated to the decision analyst Howard Raiffa and concludes with a list of recommendations that

begins, “1. Use decision analysis tools.” There’s nothing inconsistent there—the starting point of the whole Kahneman-and-Tversky research project was that decision analysis was the best approach. But other researchers in this tradition, when they try to correct the decision-making errors people make, also find themselves turning to heuristics.

One of the best-known products of heuristics-and-biases research, Richard Thaler and Shlomo Benartzi’s Save More Tomorrow program, replaces the difficult choices workers face when asked how much they want to put aside for retirement with a heuristic—a commitment to automatically bump up one’s contribution with every pay raise—that has led to dramatic increases in saving.

A recent field experiment with small-business owners in the Dominican Republic found that teaching them the simple heuristic of keeping separate purses for business and personal life, and moving money from one to the other only once a month, had a much greater impact than conventional financial education. “The big challenge is to know the realm of applications where these heuristics are useful, and where they are useless or even harm people,” says the MIT economist An-

toinette Schoar, one of the researchers. “At least from what I’ve seen, we don’t know very well what the boundaries are of where heuristics work.”

This has recently been a major research project for Gigerenzer and his allies—he calls it the study of “ecological rationality.” In environments where uncertainty is high, the number of potential alternatives many, or the sample size small, the group argues, heuristics are likely to outperform more-analytic decision-making approaches. This taxonomy may not catch on—but the sense that smart decision making consists of a mix of rational models, error avoidance, and heuristics seems to be growing.

Other important developments are emerging. Advances in neuroscience could change the decision equation as scientists get a better sense of how the brain makes choices, although that research is in early days. Decisions are increasingly shunted from people to computers, which aren’t subject to the same information-processing limits or biases humans face. But the pioneers of artificial intelligence included both John von Neumann and Herbert Simon, and the field still mixes the former’s decision-analysis tools with the latter’s heuristics. It offers no definitive verdict—yet—on which approach is best.

Making Better Decisions

So, what is the right way to think about making decisions? There are a few easy answers. For big, expensive projects for which reasonably reliable data is available—deciding whether to build an oil refinery, or whether to go to an expensive graduate school, or whether to undergo a medical procedure—the techniques of decision analysis are invaluable. They are also useful in negotiations and group decisions.

Those who have used decision analysis for years say they find themselves putting it to work even for fast judgments. The Harvard economist Richard Zeckhauser runs a quick decision tree in his head before deciding how much money to put in a parking meter in Harvard Square. “It sometimes annoys people,” he admits, “but you get good at doing this.”

A firefighter running into a burning building doesn’t have time for even a quick decision tree, yet if he is experienced enough his intuition will often lead him to excellent decisions. Many other fields are similarly conducive to intuition built through years of practice—a minimum of 10,000 hours of deliberate practice to develop true expertise, the psychologist K. Anders Ericsson

famously estimated. The fields where this rule best applies tend to be stable. The behavior of tennis balls or violins or even fire won’t suddenly change and render experience invalid.

Management isn’t really one of those fields. It’s a mix of situations that repeat themselves, in which experience-based intuitions are invaluable, and new situations, in which such intuitions are worthless. It involves projects whose risks and potential returns lend themselves to calculations but also includes groundbreaking endeavors for which calculations are likely to mislead. It is perhaps the profession most in need of multiple decision strategies.

Part of the appeal of heuristics-and-biases research is that even if it doesn’t tell you what decision to make, it at least warns you away from ways of thought that are obviously wrong. If being aware of the endowment effect makes you less likely to defend a declining business line rather than invest in a new one, you’ll probably be better off.

Yet overconfidence in one’s judgment or odds of success—near the top of most lists of decision-making flaws—is a trait of many successful leaders. At the very cutting edge of business, it may be that good

One major component that we are just beginning to

decision making looks a little like the dynamic between Star Trek's Captain Kirk and Mr. Spock, with Spock reciting the preposterously long odds of success and Kirk confidently barging ahead, Spock still at his side.

THIS MODERN WORLD

BY TOM TOMORROW

CAPTAIN'S LOG: THE ENTERPRISE HAS TRAVELED BACK IN TIME TO A PRIMITIVE AND BARBARIC ERA IN EARTH'S HISTORY--THE YEAR 2014! OUR MISSION--**HISTORICAL RESEARCH!**

CAPTAIN, I'VE LINKED THE SHIP'S COMPUTERS TO THE PLANETARY DATA NETWORK--

--BUT IT'S CLOGGED WITH VITRIOL, SOPHISTRY, AND MISOGYNY! I'M HAVING TROUBLE LOCATING ANY USEFUL **INFORMATION!**

KEEP TRYING, LIEUTENANT. MR. SPOCK--REPORT.

I AM MONITORING A COMMUNICATIONS PLATFORM KNOWN AS "TWITTER"--WHERE I HAVE INADVERTENTLY BECOME INVOLVED IN A DISPUTE REGARDING THE POSSESSION OF **FIREARMS!**

FORTUNATELY I BELIEVE THAT USER @REDSTATEOPENCARRYGUNLUVER26 IS RECEPTIVE TO **LOGIC** AND **REASON**--OR ELSE WHY WOULD HE OR SHE HAVE **INITIATED** THIS DEBATE?

COMPUTER--TRANSLATE THE 21ST CENTURY COLLOQUIALISM, "LIBTARD."

PRO-CESS-ING.

ENGINEERING TO BRIDGE! SOMEONE ON THE PLANET'S SURFACE IS TRYIN' TO HACK INTO OUR **MEMORY BANKS!**

LOCK THEM **OUT**, SCOTTY--BEFORE THEY LEARN SOMETHING THAT COULD... CHANGE...**HISTORY!**

AYE, SIR--BUT I DINNA THINK YOU NEED TO WORRY! THEY SEEM TO BE SEARCHING FOR--WELL--PICTURES OF NAKED WOMEN, SIR.

JIM, WHAT IN BLAZES WAS **WRONG** WITH THESE PEOPLE?

THEIR...**TECHNOLOGY**...OUTSTRIPPED THEIR...**MATURITY**. THEY BECAME **ADDICTED**...TO CONSTANT **STIMULATION** AND POINTLESS **DISTRACTION!**

IT'S A...**WONDER**...HUMANITY SURVIVED THE **CENTURY!**

MR. SULLU--GET US **OUT** OF HERE!

SURE, CAPTAIN--AS SOON AS I UPLOAD THESE **CAT MEMES** I JUST MADE--TO SOMETHING CALLED **FACEBOOK!**

HEH! I MUST ADMIT... THEY **ARE** AMUSING!

BUT--WHY DOES THE CAT...**WANT**...DILITHIUM CRYSTALS?

NEXT: CAN THE CREW ESCAPE THE INSIDIOUS INFLUENCE OF THE 21ST CENTURY--BEFORE IT'S **TOO LATE?**

CAPTAIN--WHY IS THERE A **PENIS** ON THE MAIN VIEWSCREEN?

BLASTED TRICORDER! I WAS...**TRYING**...TO TEXT YEOMAN RAND!

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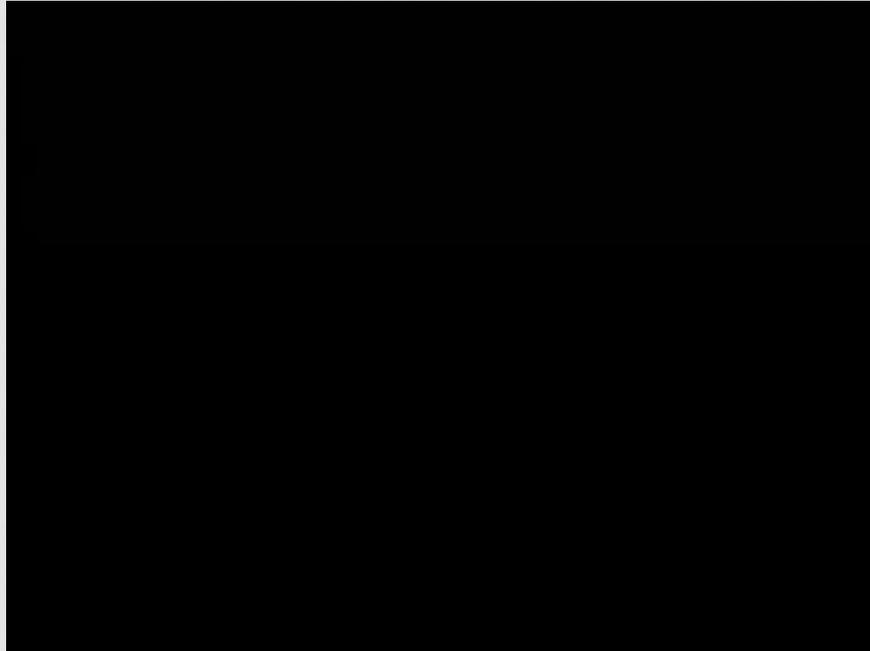
Three Decision-Making Philosophies

	POINT OF VIEW	STRENGTHS	WEAKNESSES	WHEN TO USE IT
<p>1 DECISION ANALYSIS</p>	<p>Decisions should be made systematically, even in the face of uncertainty. Decision trees provide a framework, and Bayesian statistics provide rules for revising probability assessments.</p>	<p>Consistent, rational, teachable</p>	<p>Doesn't always account for limits of time, data, and human cognitive abilities</p>	<p>To make big decisions with long investment horizons and reliable data—in oil and gas and pharma; whether to go to grad school. Also in negotiations and group decisions</p>
<p>2 HEURISTICS AND BIASES</p>	<p>When people make decisions under uncertain conditions, they rely on rules of thumb, or heuristics, that sometimes yield reasonable judgments but sometimes cause big errors.</p>	<p>Based on observed human behavior</p>	<p>Not always clear how to apply to actual decision making</p>	<p>To design better institutions, warn ourselves away from dumb mistakes, and better understand the priorities of others</p>
<p>3 GOING WITH YOUR GUT</p>	<p>The heuristics that people use to make decisions are often very effective.</p>	<p>Simple, without extraneous information</p>	<p>Can be hard to know in advance whether a heuristic will work</p>	<p>In predictable situations with opportunities for learning—firefighting, flying, sports. Also in highly uncertain situations where you can't necessarily rely on data</p>

SOURCE JUSTIN FOX
FROM "FROM 'ECONOMIC MAN' TO BEHAVIORAL ECONOMICS," MAY 2015

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Movie 3.7 How to Boost Your Bottom Line



It's a challenge for companies to get feedback that allows them to make changes, says Duke economist Dan Ariely.