Virtually all leaders believe that to stay competitive, their enterprises must learn and improve every day. But even companies revered for their dedication to continuous learning find it difficult to always practice what they preach.

Consider Toyota: Continuous improvement is one of the pillars of its famed business philosophy. After serious problems in late 2009 led Toyota to recall more than 9 million vehicles worldwide, its leaders confessed that their quest to become the world’s largest automobile producer had compromised their devotion to learning.

Why do companies struggle to become or remain “learning organizations”? Through research conducted over the past decade across a wide range of industries, we have drawn this conclusion: Biases cause people to focus too much on success, take action too quickly, try too hard to fit in, and depend too much on experts. In this article we discuss how these deeply ingrained human tendencies interfere with learning—and how they can be countered.
The Neural Implications of Different Mindsets

What happens inside our brains when we make mistakes? That depends on our ideas about learning and intelligence.

Individuals with a growth mindset, who believe that intelligence and talents can be enhanced through effort, regard mistakes as opportunities to learn and improve. By contrast, individuals with a

Challenge #3: Overreliance on past performance.

When making hiring and promotion decisions, leaders often put too much emphasis on performance and not enough on the potential to learn. Over time, Egon Zehnder, a global executive search firm, had developed a sophisticated means of evaluating candidates that considered not only their past achievements but also their competencies.
**fixed mindset**, who believe that intelligence and talents are innate and unchangeable, think mistakes signal a lack of ability.

Jason S. Moser and his colleagues at Michigan State University examined the neural mechanisms underlying these differing reactions to mistakes. The picture below illustrates neural activity in people performing a task and making errors. Those with a fixed mindset display considerably less brain activity than those with a growth mindset, who actively process errors to learn from them.

![Image of neural activity in fixed and growth mindsets](image)

**SOURCE** "MIND YOUR ERRORS: EVIDENCE FOR A NEURAL MECHANISM LINKING GROWTH MIND-SET TO ADAPTIVE POSTERROR ADJUSTMENTS," JASON S. MOSER ET AL., PSYCHOLOGICAL SCIENCE, OCTOBER 2011

However, it found that in numerous instances, candidates who looked equally good on paper performed differently on the job. Why?

A partner at the firm, Karena Strella, and her team believed the answer was individuals’ potential for improvement. After a two-year project that drew on academic research and interviews, they identified four elements that make up potential: curiosity, insight, engagement, and determination. They developed interview questions to get at these elements, along with psychometric measures applied via questionnaires. This new model now plays a key role in the search firm’s assessments of job candidates. Egon Zehnder has found that high-potential candidates perform better than their peers with less potential, thanks to their openness to acquiring new skills and their thirst for learning.

**Challenge #4: The attribution bias.**

It is common for people to ascribe their successes to hard work, brilliance, and skill rather than luck; however, they blame their failures on bad fortune. This phenomenon, known as the attribution bias, hinders learning (see “Why Leaders Don’t Learn from Success,” HBR, April 2011). In fact, unless people recognize that failure resulted from their own actions, they do not learn from their mistakes. In a study we conducted with Chris Myers, we asked participants to work on two different decision-making tasks spaced one week apart. Each task had a correct solution, but only a few people were able to identify it. We found that participants who took responsibility for doing poorly on the first activity were almost three times as likely to succeed on the second one. They learned from their failure and made better decisions as a result.

Leaders can use the following methods to encourage others to find the silver lining in failures, adopt a growth mindset, focus on potential, and overcome the attribution bias.
Destigmatize failure.
Leaders must constantly emphasize that mistakes are learning opportunities rather than cause for embarrassment or punishment, and they must act in ways that reinforce that message. Ashley Good, the founder of Fail Forward, a Toronto-based consulting firm that helps companies learn how to benefit from blunders, often begins by asking a client’s employees questions such as “Do you take risks in the course of your work?” and “Is learning from failure formally supported?” The answers help leaders understand whether their company has a culture in which failure is openly discussed and accepted, and what steps they should take if not.

Embrace and teach a growth mindset.
Leaders need to challenge their own thinking about whether people can improve.

Research by Peter Heslin and colleagues found that managers with a growth mindset notice improvement in their employees, while those with a fixed mindset do not because they are stuck in their initial impressions.

When people are taught a growth mindset, they become more aware of opportunities for self-improvement, more willing to embrace challenges, and more likely to persist when they confront obstacles. So tell employees that you believe they can expand their talents if they apply themselves. Reinforce that message by educating them about the research on growth mindsets and relaying stories about high-performing employees who were dedicated to their jobs and developed skills over time. Finally, in formal and informal performance reviews, praise their efforts to learn.

Consider potential when hiring and promoting.
Doing this—and making it clear to employees that it is being done—will help counter managers’ incorrect first impressions, along with their natural inclination to hire and promote people like themselves. It will also encourage employees to try new things and seek support in developing their competencies. Considering someone’s potential to improve will almost certainly surface
candidates who otherwise would be overlooked for jobs and promotions. When Egon Zehnder began including potential in assessing possible contenders for managerial positions, the resulting pools of candidates were more diverse in terms of race and gender.

**Use a data-driven approach to identify what caused success or failure.**
Most leaders know that data is critical to uncovering the true causes of successful performance, but they don’t always insist on collecting and analyzing the necessary information. One exception is Ed Catmull, the president of Pixar and Disney Animation Studios. He is a big believer in conducting data-based postmortems of projects—including successful ones—and stresses that even creative endeavors like moviemaking involve activities and deliverables that can be measured. “Data can show things in a neutral way, which can stimulate discussion and challenge assumptions arising from personal impressions,” he says (see “How Pixar Fosters Collective Creativity,” HBR, September 2008).

People who are taught a growth mindset see more opportunities for improvement.

Of course, collecting the data is one thing; accepting what the data tells us is another. We have both worked with all too many organizations where “data-driven decision making” is code for contorting the facts until they reveal whatever senior management expects to see. It’s the role of leaders to ensure that they and other executives are sensitive to this tendency and don’t succumb to it.

**Bias Toward Action**
How do you usually respond when you are faced with a problem in your organization? If you’re like most managers, you choose to take some kind of action. You work harder, put in even longer hours, and place added stress on yourself. You’re more comfortable doing something, even if it is counterproductive and doing nothing is the best course of action.

Consider professional soccer goalies and their strategies for defending against penalty kicks. According to a study by Michael Bar-Eli and colleagues, those who stay in the center of the goal, rather than leaping to the right or left, perform the best: 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, even if it turns out to have been in the wrong direction, than to have stood still and watched the ball sail by.
The same aversion to inaction holds true in the business world. When we surveyed participants in our executive education classes, we found that managers feel more productive executing tasks than planning them. Especially when under time pressure, they perceive planning to be wasted effort. This bias toward action is detrimental to improvement for two reasons.

**Challenge #1: Exhaustion.**
Not surprisingly, exhausted workers are too tired to learn new things or apply what they already know. For example, research conducted by one of us (Brad) with Hengchen Dai, Katherine Milkman, and David Hofmann found that hand-washing compliance by hospital personnel—widely known to be critical for preventing hospital-acquired infections—fell nine percentage points, on average, over a typical 12-hour shift. The drop was even greater when health-care workers had a particularly busy shift. However, compliance increased when the workers had more time off between shifts.

**Challenge #2: Lack of reflection.**
Being “always on” doesn’t give workers time to reflect on what they did well and what they did wrong.

Research that we conducted at a tech-support call center of Wipro, a global IT, consulting, and outsourcing company based in India, illustrates this. We studied employees during their initial weeks of training. All went through the same technical training, with a key difference. On the sixth through the 16th days of the program, some workers spent the last 15 minutes of each day reflecting on and writing about the lessons they had learned that day. The others, the control group, just kept working for another 15 minutes. On the final training test at the end of one month, workers who had been given time to reflect performed more than 20% better, on average, than those in the control group. Several lab studies we conducted on college students and employed individuals in a variety of organizations produced similar results.

The following antidotes to the bias for action may sound obvious, but they are infrequently applied.

**Build breaks into the schedule.**
Make sure workers take sufficient time to rejuvenate and reflect during the workday and between shifts. In many organizations, hourly
Too much openness can be counterproductive. Privacy is just as important to performance. 

However, our research suggests that companies should provide even more downtime than they do. At Morning Star, a vertically integrated tomato-processing company, the workers in the fields not only get mandated breaks, but they also sometimes have to suspend their work for periods that can last nearly an hour, as a result of glitches in other parts of the system (such as a tomato trailer’s failure to show up). Company data that we examined revealed that workers were actually more productive over a 12-hour shift if their day included such unexpected breaks. The message: Leaders should conduct experiments to determine the optimal number and length of breaks.

For many management and knowledge-worker positions, of course, there are no mandatory breaks. Individuals have to decide for themselves whether to pause and recharge. Virtually everyone in such jobs recognizes the benefits of watercooler conversations for learning and exchanging ideas. People also agree that it’s important to get enough sleep and take vacations. Yet many of us don’t practice what we preach. A recent survey conducted by Staples drives this point home. When Staples asked more than 200 office workers in the United States and Canada about their work habits, more than a quarter reported that they took no break other than lunch. The vast majority of those cited guilt as the main reason. Yet 90% of the bosses surveyed said that they encouraged breaks, and 86% of employees agreed that brief respites from work make them more productive.

Make sure workers take time to rejuvenate and reflect.

Why Organizations Don’t Learn

So urge employees to take breaks and vacations, and set an example. Research shows that the restorative benefits are greatest when you get out of your office or go for a walk. Don’t have lunch at your desk then; head outside for a stroll instead, especially in a park. It will put you in a better
Take time to just think.

In the same way that you block out time on your calendar to plan an initiative or a presentation, you should block out a short period each day—even just 20 to 30 minutes—to either plan your agenda (in the early morning) or think about how the day went (in the late afternoon). If time is really scarce, try to reflect on your way to or from work. A study of commuters in the United Kingdom that we conducted with Julia Lee and Jon Jachimowicz showed that those who were encouraged (through text messages) to plan for their upcoming day during their journeys were happier, less burned-out, and more productive than people in a control group.

Leaders can help by thoughtfully structuring the workweek—for instance, by insisting that no meetings be held on Fridays, as Tommy Hilfiger and other firms have done.

Encourage reflection after doing.

Through reflection, we can better understand the actions we’re considering and their likelihood of keeping us productive. “Don’t avoid thinking by being busy,” a wise mentor once told one of us.

Some organizations are finding ways to incorporate reflection into their regular activities. One powerful approach treats reflection as a post hoc analytical tool for understanding the drivers of success and failure. The U.S. Army is well known for its after-action reviews (AARs). To ensure that a rigorous process is followed, AARs are run by a facilitator rather than the project’s leader. An effective AAR involves comparing what actually happened with what should or could have happened and then carefully diagnosing the gap, be it positive or negative.

Whether reflecting with a group or by yourself, keep a few things in mind. First, remember that the goal is to learn. That means being honest with yourself—something an outside facilitator can help ensure in group settings. Second, try to get a full and accurate picture of what occurred. That requires considering multiple perspectives (because we all have incomplete and often biased opinions) and using data. Third, work to get to the root of why things played out the way they did. Finally, think about how the work could be improved. Beyond the obvious fixes to the existing process, take time to imagine how you would do things completely differently if you could.
When we join an organization, it’s natural to want to fit in. But this tendency leads to two challenges to learning.

**Challenge #1: Believing we need to conform.**

Early in life, we realize that there are tangible benefits to be gained from following social and organizational norms and rules. As a result, we make a significant effort to learn and adhere to written and unwritten codes of behavior at work. But here’s the catch: Doing so limits what we bring to the organization. As Steve Jobs famously said, “It doesn’t make sense to hire smart people and tell them what to do; we hire smart people so they can tell us what to do.” In fact, being unafraid to stand out can actually garner respect, despite beliefs to the contrary. Research conducted by one of us (Francesca) with Silvia Bellezza and Anat Keinan found that nonconforming behaviors (such as dressing down at a business meeting or using one’s own PowerPoint theme rather than the organization’s) raise others’ estimation of a person’s competence and status.

**Challenge #2: Failure to use one’s strengths.**

When employees conform to what they think the organization wants, they are less likely to be themselves and to draw on their strengths. A Gallup survey of thousands of people across the globe shows that an affirmative answer to the question “At work, do you have an opportunity to do what you do best every day?” is a significant predictor of engagement and high operational performance. When people feel free to stand apart from the crowd, they can exercise their signature strengths (such as curiosity, love for learning, and perseverance), identify opportunities for improvement, and suggest ways to exploit them. But all too often, individuals are afraid of rocking the boat.

Leaders can use several methods to combat the bias toward fitting in.

**Encourage people to cultivate their strengths.**

To motivate and support employees, some companies allow them to spend a certain portion of their time doing work of their own choosing. Although this is a worthwhile practice, firms should strive to help individuals apply their strengths every day as a normal part of their jobs.
Toward that end, managers should help individuals identify and develop their fortes—and not just by discussing them in annual performance reviews. One effective method is to give someone an “appreciation jolt” in the form of positive feedback. It’s particularly potent when friends, family, mentors, and coworkers share stories about how the person excels. These stories, our research shows, trigger positive emotions, cause us to realize the impact that we have on others, and make us more likely to continue capitalizing on our signature strengths rather than just trying to fit in.

This approach helped a major global consulting company address a problem: Its employees tended to view their jobs as money-for-labor contracts and often would do the bare minimum instead of seeking to create win-win outcomes for themselves and the firm. We found that the jolts—delivered during the onboarding, or orientation, process—gave new hires a more personal, less transactional relationship with the organization and correlated with reduced burnout, less turnover a year after the intervention, and improved performance. Earlier work that we did at an Indian call center generated similar results: A focus on individuals and their strengths during the onboarding process was associated with significantly lower turnover and higher customer satisfaction.

To understand whether their organization is helping people identify and leverage their strengths, managers should ask themselves the following questions: Do I know what my employees’ talents and passions are? Am I talking to them about what they do well and where they can improve? Do our goals and objectives include making maximum use of employees’ strengths?

Increase awareness and engage workers.

If people don’t see an issue, you can’t expect them to speak up about it. Lowe’s, the home-improvement retail chain, prides itself on its commitment to worker safety, and most employees report in anonymous surveys that they feel safe on the job. Yet for Hank Jones, the company’s director of safety and hazardous materials, even one safety lapse is too many. His team takes a multipronged approach to get employees to speak up about potential safety hazards in stores. During meetings with workers throughout the organization, team members
increase awareness of specific problems by asking questions such as “Do you know how many people we injured last year, and do you know where those injuries occurred?” The company has also started publishing safety outcome data in its annual social responsibility report.

In addition, Jones changed the way managers run safety meetings: Instead of reading the latest safety policies or rules, they ask questions or pose issues and give the group time to tackle them. Meetings become less about passively learning material and more about actively improving processes.

**Model good behavior.**
During store walks, Lowe’s executives look for opportunities to highlight the importance of safety and get to the root cause of unsafe behavior, including their own. When one senior executive stepped onto a pallet—a clear hazard—a store associate asked him to get down. The executive complied, hugged the associate, and thanked him in front of others, sending the message that the organization values employees who speak up.

**Bias Toward Experts**
Beginning in the early 20th century, the scientific management movement introduced a rigorous approach to examining how organizations operate. In the process, though, it solidified the notion that experts are the best source of ideas for improvement. Today companies continue to call in consultants, industrial engineers, Six Sigma teams, and the like when improvement is needed. The bias toward experts creates two challenges.

**Challenge #1: An overly narrow view of expertise.**
Organizations tend to define “expert” too narrowly, relying on indicators such as titles, degrees, and years of experience. However, experience is a multidimensional construct. Different types of experience—including time spent on the front line, with a customer or working with particular people—contribute to understanding a problem in detail and creating a solution.

A bias toward experts can also lead people to misunderstand the potential drawbacks that come with increased time and practice in the job. Though experience improves efficiency and effectiveness, it can also make people more resistant to change and more likely to dismiss information that conflicts with their views.

**Challenge #2: Inadequate frontline involvement.**
Blinded by Expertise

To examine how experience can increase resistance to change, we looked at the ways cardiologists and investors with different levels of experience responded to bad news that required some professional judgment.

One standard cardiology procedure is placing coronary stents in constricted arteries to maintain proper blood flow. In the early 2000s, a new kind of stent, with a drug-eluting coating, was released to the market. Because reimbursement rates were comparable for the new and the traditional devices, cardiologists could primarily consider the medical merits when deciding which one to use.

In reaction to evidence that the drug-eluting stents might be dangerous in certain situations, an advisory panel of the U.S. Food and Drug Administration recommended in late 2006 that they not be used in off-label applications. But doctors were not obligated to follow this advice. Our empirical analysis of data from before and after this “shock” revealed that experienced cardiologists were less likely than newer doctors to respond to the recommendation by discontinuing their overall use of drug-eluting stents.

Since the data was unclear as to whether drug-eluting or non-drug-eluting stents were better for patient outcomes, we conducted follow-up laboratory studies with people making investment decisions and receiving unequivocally negative news. We found the same results: Decision makers who had significant expertise weren’t as willing to heed the negative information as their less-experienced counterparts.

The following tactics can help organizations overcome the tendency to turn to experts.

Encourage workers to own problems that affect them.

Make sure that your organization is adhering to the principle that the person who experiences a problem should fix it when and where it occurs. This prevents workers from relying too heavily on experts and helps them avoid making the same mistakes again. Tackling the problem immediately, when the relevant information is still fresh, increases the chances that it will be successfully resolved.

For example, at Morning Star’s tomato-processing facilities, individuals are expected not only to meet specific targets for themselves but also to look for ways to improve their work and the overall performance of the operation. When something goes awry on a worker’s watch, she is responsible for fixing it. That might involve enlisting others to help or even going out to purchase new equipment (although there...
experienced peers were. The message: If you are not careful, your experience may hinder your learning.

are understood limits to what workers can spend without authorization). The company encourages problem-solving behavior not only through its culture but also through its compensation practices: Pay is based both on meeting goals and on improving over time.

**Give workers different kinds of experience.**

In our research at a Japanese bank, we looked at how data-entry workers performed when they were doing the same task repeatedly (“specialized experience”) and when they were switching between different tasks (“varied experience”). We found that over the course of a single day, a specialized approach was fastest. But over time, switching activities across days promoted learning and kept workers more engaged. Both specialization *and* variety were important to learning.

In addition, giving workers new types of experience and greater depth within each of them is valuable. One of us (Brad), along with Jonathan Clark and Robert Huckman, studied the operational performance of radiologists who read digital images (X-rays or CT scans) remotely for hospitals. Although a doctor’s total experience mattered, another important predictor of performance over time was how often that individual worked with a given hospital. As the radiologist gained experience with a particular hospital, he could respond more quickly to its requests and help it improve its processes.

Yet another factor that affects improvement is team members’ familiarity with one another. In studies across settings—including software development companies, consulting firms, health care organizations, and laboratories—we’ve found that working repeatedly with the same people can enhance coordination, optimize the use of valuable expertise residing within a group, speed the response to new circumstances, and improve how people combine their knowledge to solve problems effectively. In light of research showing that software teams were more likely to deliver projects on budget and with higher quality when their members had prior experience working together than when they did not, Wipro began staffing its projects accordingly.

**Why Organizations Don’t Learn**

Given such findings, leaders should strive to deepen their understanding of the kinds of industry, customer, and team experiences that affect their operating environments. They should then use this information to develop employees, track their experience portfolios, and deploy them...
strategically. Companies may have to change their enterprise systems, analytics capabilities, and staffing models. But the investment will help them build a richer understanding of how to improve learning and performance over time.

**Empower employees to use their experience.**

Organizations should aggressively seek to identify and remove barriers that prevent individuals from using their expertise. Solving the customer's problems in innovative, value-creating ways—not navigating organizational impediments—should be the challenging part of one's job. Ethan Bernstein found that employees at a leading global manufacturer were working less productively when managers were watching them (see “The Transparency Trap,” HBR, October 2014). The company claimed to be in the “lean camp,” but its practices suggested otherwise: For example, workers were not sharing their ideas for improving processes with others. Bernstein’s innovative solution was to put curtains around a factory production line so that employees could work in privacy. The result: Productivity increased significantly. Leaders should identify ways they can truly empower employees—whether by giving them more privacy, publicly acknowledging their contributions, or providing monetary rewards.

It may be cheaper and easier in the short run to ignore failures, schedule work so that there’s no time for reflection, require compliance with organizational norms, and turn to experts for quick solutions. But these short-term approaches will limit the organization’s ability to learn. If leaders institute ways to counter the four biases we have identified, they will unleash the power of learning throughout their operations. Only then will their companies truly improve continuously.

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Aditya Sedani 4 months ago

It's really good article. Personally, I felt couple of points which are really important are:

1. The leaders should insist to discuss the mistakes openly and destigmatize the same.

2. Employees should reflect back on their work success/failure to build their learning curve.

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