Bi-weekly Random Bits from the Internet

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(NOBODY REMEBERS IT IS MY BIRTHDAY, AND IT IS OK)

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Leaders as Decision Architects

John Beshears and Francesca Gino, Harvard Business Review
May 2015

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 intu-

ition 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.")

Overreliance 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 decisions. 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 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 think-

ing 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 prevented 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?"

Common Biases That Affect Business Decisions

Many cognitive biases impair our ability to objectively evaluate information, form sound judgments, and make effective decisions. These biases can be particularly problematic in business contexts.

ACTION-ORIENTED BIASES

Excessive optimism We are overly optimistic about the outcome of planned actions. We overestimate the likelihood of positive events and underestimate that of negative ones.

Overconfidence We overestimate our skill level relative to others' and consequently our ability to affect future outcomes. We take credit for past positive outcomes without acknowledging the role of chance.

BIASES RELATED TO PERCEIVING AND JUDGING ALTERNATIVES

Confirmation bias We place extra value on evidence consistent with a favored belief and not enough on evidence that contradicts it. We fail to search impartially for evidence.

Anchoring and insufficient adjustment We root our decisions in an initial value and fail to sufficiently adjust our thinking away from that value.

Groupthink We strive for consensus at the cost of a realistic appraisal of alternative courses of action.

Egocentrism We focus too narrowly on our own perspective to the point that we can't imagine how others will be affected by a policy or strategy. We assume that everyone has access to the same information we do.

BIASES RELATED TO THE FRAMING OF ALTERNATIVES

Loss aversion We feel losses more acutely than gains of the same amount, which makes us more risk-averse than a rational calculation would recommend.

Sunk-cost fallacy We pay attention to historical costs that are not recoverable when considering future courses of action.

Escalation of commitment We invest additional resources in an apparently losing proposition because of the effort, money, and time already invested.

Controllability bias We believe we can control outcomes more than is actually the case, causing us to misjudge the riskiness of a course of action.

STABILITY BIASES

Status quo bias We prefer the status quo in the absence of pressure to change it.

Present bias We value immediate rewards very highly and undervalue long-term gains.

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

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 employees 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 people 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 otherwise. 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.

Trigger System 1.

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 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 employees 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 prompting 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 organization 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

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

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 frequently 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).

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 motiva-

tion 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.

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.

Does He Pass the Test?

Paul Krugman, The New York Review of Books July 10, 2014

1.

Midway through Timothy Geithner's Stress Test, the former treasury secretary describes a late-2008 conversation with the then president-elect. Obama "wanted to discuss what he should try to accomplish." Geithner's reply was that his accomplishment would be "preventing a second Great Depression." And Obama shot back that he didn't want to be defined by what he had prevented.

It's an ironic tale for Geithner to be telling, although it's not clear whether he himself realizes just how ironic. For Stress Test is meant to be a story of successful policy—but that success is defined not by what happened but by what didn't. America did indeed manage to avoid a full replay of the Great Depression—an achievement for which Geithner implicitly claims much of the credit, and with some justification. We did not, however, avoid economic disaster. By any plausible accounting, we've lost trillions of dollars' worth of goods and services that we could and should have produced; millions of Americans have lost their jobs, their homes, and their dreams. Call it the Lesser Depression—not as bad as the 1930s, but still a terrible thing. Not to mention the disastrous consequences abroad.

Or to use one of the medical metaphors Geithner likes, we can think of the economy as a patient who was rushed to the emergency room with a life-threatening condition. Thanks to the urgent efforts of the doctors present, the patient's life was saved. But while the doctors kept him alive, they failed to cure his underlying illness, so he emerged from the procedure partly crippled, and never fully recovered.

How should we think about the economic policy of these past seven or so years? Geithner, while acknowledging the disappointments, would have us view it mainly as a success story, because things could have been much worse. And the middle third of his book, a blow-by-blow account of the acute phase of the financial crisis, carries the implicit and sometimes explicit message that things would indeed have been much worse but for the heroic actions of a handful of high officials, himself included.

But this still leaves open the question of whether things could and should have been considerably better, whether preventing a complete economic meltdown was all that could have been accomplished. Here Geithner implicitly says no—or at least that there was nothing more that he himself could have done.

I'll return to the questions about Geithner's role later. First, however, let's examine the nature of the economic crisis we experienced, and why emergency treatments haven't produced a full return to health.

2.

Something went very wrong with the US economy in 2008. But what?

Quite early on, two somewhat different stories emerged about the economic crisis. One story, which Geithner clearly preferred, saw it mainly as a financial panic—a supersized version of a classic bank run. And there certainly was a very frightening panic in 2008–2009. But the alternative story, which has grown more persuasive as the economy remains weak, sees the financial panic, while dangerous in its own right, as a symptom of something broader and deeper—mainly a large overhang of private debt, in particular household debt.

What's the difference? A financial panic is above all about confidence, or rather the lack thereof, and the overriding task of policy is to restore confidence. And one way to think about policy in the crisis is to say that people like Tim Geithner and Ben Bernanke dealt forcefully and effectively with the urgent task of restoring confidence in the financial system.

But confidence in itself is not enough to deal with the broader consequences of a debt overhang. That takes policies that go well beyond saving financial institutions—policies like sustained fiscal stimulus and debt relief for families. Unfortunately, such policies were never forthcoming on a remotely adequate scale, which is why true recovery has remained so elusive. And although Geithner denies it, one contributing factor to the inadequacy of policy was surely the fact that he seemed uninterested in, and maybe even hostile to, the policies we needed after the panic subsided.

So, about the panic: Geithner offers a very good and clear explanation of what financial panics are all about. As he says, they're basically the bank run from the movie It's a Wonderful Life writ large. Banks are, more or less by definition, institutions that promise their creditors—depositors if they're conventional banks—ready access to their funds; but they invest in assets that are relatively illiquid, that is, can't be converted into cash on short notice. The reason this works is that under normal conditions, only a small fraction of a bank's depositors will try to pull their money out on any given day.

But the risk of a run is always there. Suppose that for some reason many depositors do decide to demand cash at the same time. The bank won't have that much cash on hand, and if it tries to raise more cash by selling assets, it will have to sell those assets at fire-sale prices. The result is that mass withdrawals can break a bank, even if it's fundamentally solvent. And this in turn means that when investors fear that a bank may fail, their actions can produce the very failure they fear: depositors will rush to pull their money out if they believe that other depositors will do the same, and the bank collapses.

Now, we have an answer to this danger: federal deposit insurance, which has made old-fashioned bank runs obsolete by assuring depositors that they won't lose their money. The problem, it turned out, was that by the mid-2000s much of the US financial system—more than half of it, by Geithner's reckoning—consisted of "shadow banks," which didn't rely on traditional deposits but instead raised money through various forms of short-run borrowing. Lehman Brothers, for example, relied heavily on "repo"—short-term loans, mainly overnight, with assets like mortgage-backed securities as collateral. What became apparent in 2008 was that shadow banks were every bit as vulnerable to runs as conventional banks, but lacked any kind of public safety net.

Worse, runs on shadow banks proved contagious. As investors pulled their funds from shaky firms, those firms were forced into frantic fire sales of assets; such sales depressed the prices of the collateral used by other banks, producing further investor panic.

The point is that a financial panic is very much a case of self-fulfilling prophecy. And there's a classic way to deal with self-fulfilling panics—namely, for someone to step up as the "lender of last resort," providing banks facing a run with cash, so that they don't need to engage in desperate fire sales. When all goes well, the lender of last resort's intervention can seem almost magical in its effects: in a matter of months or sometimes even days, markets revive, asset prices return to normal, and business as usual resumes.

All this is, as I said, well understood. The lender of last resort's function was described at length in Walter Bagehot's Lombard Street: A Description of the Money Market, published in 1873, and cited repeatedly in Stress Test. The Federal Reserve was itself created mainly to serve as a permanent lender of last resort; it was founded after the Panic of 1907, when major disruption was avoided only because J.P. Morgan organized an ad hoc coalition of bankers to act as lenders of last resort, and everyone realized that they couldn't count on Morgan to be there forever.

So why was it so hard to organize an effective response to the 2008–2009 panic? One answer is that the Fed was set up to deal with conventional banks, and had neither a clear legal mandate for nor much experience in bailing out shadow banks. As a result, the tale of the bailout—which occupies about half of Geithner's book—is one of frantic institutional creativity. Again and again Geithner, Bernanke, and other officials had to find clever ways to expand their mandate. They rescued Bear Stearns, which ordinarily wouldn't have qualified for an injection of cash, by funneling the money through JPMorgan Chase. They got Goldman Sachs and Morgan Stanley, which are not now and have never been banks in the ordinary sense of the word, to nonetheless convert themselves officially into bank holding companies, to "create the impression that they were under the umbrella of Fed protection." They put the Fed itself into the banking business, temporarily taking over most of the market for commercial paper—short-term business loans. And so on, month after month, page after page.

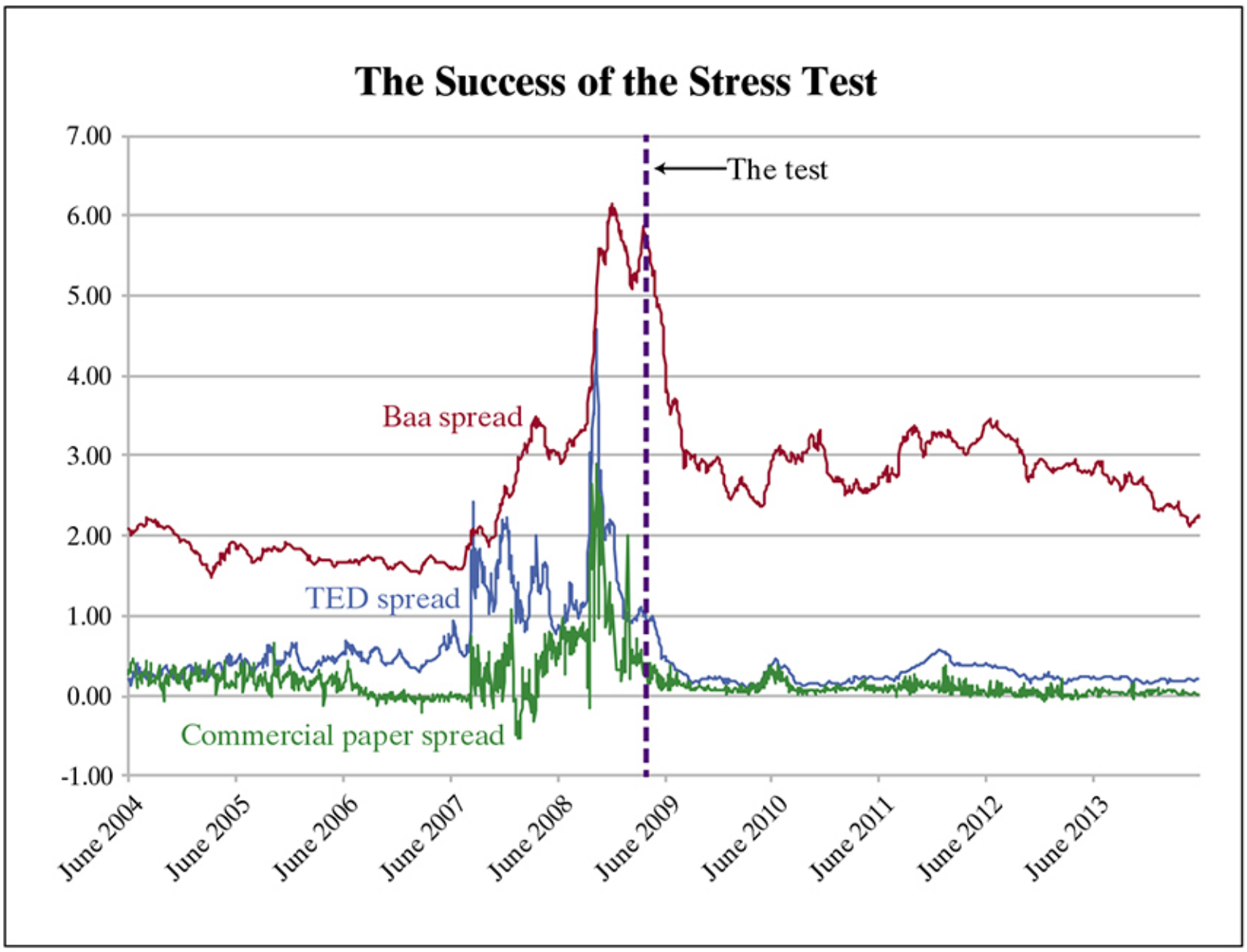
But the centrality of shadow banking wasn't the only problem. There was also the very real possibility that the financial crisis was more than just a self-fulfilling prophecy, that large parts of the financial system would be bankrupt even if the panic subsided. If that was true, public assistance to institutions facing runs could lead to large taxpayer losses. Then what?

Fear of big bank losses led to a three-sided debate. On one side were the people who warned of "moral hazard"—that bailing out banks would reward bad actors, and encourage future irresponsibility. On another side were the nationalization people, myself among them (Geithner describes me as "the intellectual leader of the nationalization brigade"), who argued that the banks needed to be bailed out—the risks of financial collapse were too great otherwise—but that bank stockholders didn't. The idea was that the government, in return for taking on big risks, should temporarily acquire ownership of the most troubled banks, so that taxpayers would profit if things went well. This wasn't an outlandish position, by the way—it was what had happened in many historical bank bailouts, and was in effect what happened in the case of AIG, the giant insurance company, in which the government supplied cash and temporarily acquired a 79.9 percent ownership stake.

Finally, there was Geithner's position, which was that despite its scale the financial crisis should be treated more or less as an ordinary lender-of-last-resort problem—that temporary nationalization would hurt confidence and was unnecessary, that once the panic subsided banks would be OK. A principal part of Geithner's argument against nationalization was the belief that a "stress test" of banks would show them to be in fairly decent shape, and that publishing the results of such a test would, in conjunction with promises to shore up banks when necessary, end the crisis. And so

it proved. He was right; I was wrong; and the triumph of the stress test gave him the title for his book.

In some ways, one has to say, the success of the stress test remains something of a mystery—part of the larger mystery of why the US financial bailout was so cheap. Yes, that's right: in the end, the direct costs of bailing out banks and other financial institutions were remarkably low. Historically, taxpayers have typically been called on to swallow large losses in the course of cleaning up banking crises. Even the savings and loan crisis of the 1980s, which had little effect on the overall economy, ended up costing taxpayers around 5 percent of GDP. But the cleanup from the biggest financial crisis since the 1930s ended up costing less than a tenth of that. Geithner never really explains why.



Whatever the reasons, however, the stress test pretty much marked the end of the panic. The graph on this page shows several key measures of financial disruption—the TED spread, an indicator of perceived risks in lending to banks, the commercial paper spread, a similar indicator for businesses, and the Baa spread, indicating perceptions of corporate risk. All fell sharply over the first half of 2009, returning to more or less normal levels. By the end of 2009 one could reasonably declare the financial crisis over.

But a funny thing happened next: banks and markets recovered, but the real economy, and the job market in particular, didn't.

3.

According to the independent committee that officially determines such things, the so-called Great Recession ended in June 2009, around the same time that the acute phase of the financial crisis ended. Most Americans, however, disagree. In a March 2014 poll, for example, 57 percent of respondents declared that the nation was still in recession.

It's not hard to understand where this grim assessment comes from. Output and employment have indeed been growing over the past five years, but slowly. Thanks to the depressed state of the economy, it's still very hard to find a full-time job—both the number of long-term unemployed workers and the number of people unable to find full-time jobs remain far above pre-crisis levels.

Clearly, restoring confidence in the financial sector, while it may have been necessary to avoid a complete economic meltdown, wasn't enough to jump-start a strong recovery. Why not?

The best working hypothesis seems to be that the financial crisis was only one manifestation of a broader problem of excessive debt—that it was a so-called "balance sheet recession." Curiously, while Geithner repeatedly refers to the classic Bagehot analysis of financial panic, he never mentions the almost equally classic analysis of "debt deflation" by the American economist Irving Fisher, who laid out the basics of the balance sheet view back in 1933. Yet a Fisher-type interpretation of our economic troubles has seemed increasingly relevant as financial markets flourish but the real economy remains stubbornly weak.

The logic of a balance sheet recession is straightforward. Imagine that for whatever reason people have grown careless about both borrowing and lending, so that many families and/or firms have taken on high levels of debt. And suppose that at some point people more or less suddenly realize that these high debt levels are risky. At that point debtors will face strong pressures from their creditors to "deleverage," slashing their spending in an effort to pay down debt. But when many people slash spending at the same time, the result will be a depressed economy. This can turn into a self-reinforcing spiral, as falling incomes make debt seem even less supportable, leading to deeper cuts; but in any case, the overhang of debt can keep the economy depressed for a long time.

Where do bank runs fit into this story? Well, it's easy to see how fears about excessive debt can raise concerns about the solvency of banks, which in turn can start a process of self-fulfilling panic. The point, however, is that even if the panic can be contained, the problem of excessive debt remains. And that, arguably, is why the bank bailouts of 2008–2009 didn't lead to a satisfactory economic recovery.

What would it have taken to do better?

Unlike a financial panic, a balance sheet recession can't be cured simply by restoring confidence: no matter how confident they may be feeling, debtors can't spend more if their creditors insist they cut back. So offsetting the economic downdraft from a debt overhang requires concrete action, which can in general take two forms: fiscal stimulus and debt relief. That is, the government can step in to spend because the private sector can't, and it can also reduce private debts to allow the debtors to spend again. Unfortunately, we did too little of the first and almost none of the second.

Yes, there was the American Recovery and Reinvestment Act, aka the Obama stimulus, and it surely helped end the economy's free fall. But the stimulus was too small and too short-lived given the depth of the slump: stimulus spending peaked at 1.6 percent of GDP in early 2010 and dropped rapidly thereafter, giving way to a regime of destructive fiscal austerity. And the administration's efforts to help homeowners were so ineffectual as to be risible.

So where was Timothy Geithner in all this?

4.

There's a curious change in tone about two thirds of the way through Stress Test. Up to that point—basically, up to the stress test itself and its immediate aftermath—Geithner tells a tale of heroic activism, of good men and women pulling out all the stops to save the world. Thereafter, however, Geithner turns apologetic and self-exculpatory. He acknowledges that more stimulus and debt relief would have been good things; he claims that he wanted to do much more, but that practical difficulties and political opposition made stronger action impossible. The can-do hero of the financial crisis, endlessly creative in finding ways to bypass institutional and political obstacles to do what needs to be done, suddenly becomes a passive observer of events.

Is that really how it was? I'm sorry to say this, but Geithner doesn't appear to be a reliable narrator here.

Take the question of stimulus. "We all felt the stimulus should be as big as possible," Geithner tells us. But the memo on economic stimulus that was presented to the president-elect in December 2008—a memo that reflected a lot of input from Geithner—warned against a big plan: "An excessive recovery package could spook markets or the public and be counterproductive." And Geithner reportedly snapped at Christina Romer, the chair of the president's Council of Economic Advisers, that stimulus is "sugar."

Geithner also makes some demonstrably false statements about the public debate over stimulus. "At the time," he declares, "$800 billion over two years was considered extraordinarily aggressive, twice as much as a group of 387 mostly left-leaning economists had just recommended in a public letter." Um, no. A number of economists, including Columbia's Joseph Stiglitz and myself, were warning that the package was too small; so was Romer, internally. And that economists' letter called for $300 to $400 billion per year. The Recovery Act never reached that level of spending; even if you include tax cuts of dubious effectiveness, it only briefly grazed that target in 2010, before rapidly fading away.

And then there's the issue of debt relief. Geithner would have us believe that he was all for it, but that the technical and political obstacles were too difficult for him to do very much. This claim has been met with derision from Republicans as well as Democrats. For example, Glenn Hubbard, who was chief economic adviser under George W. Bush, says that Geithner "personally and actively opposed mortgage refinancing."

Furthermore, Geithner seems to want it both ways—to portray himself as a frustrated advocate of more debt relief, while at the same time asserting that such relief would have made little difference. And his eagerness to make the latter assertion leads him to engage in some demonstrably bad arithmetic. The economists Atif Mian and Amir Sufi are our leading experts on the problems created by debt overhang (and the authors of an important new book on the subject, House of Debt); they looked at Geithner's claims about the benefits of debt relief to the economy and showed that they are absurdly low, far below anything current research suggests.

The best guess is that Geithner was in fact unenthusiastic about stimulus and more or less hostile to mortgage debt relief. But did this matter? You can argue that a bigger stimulus plan would have failed to pass Congress; you can argue that mortgage refinancing would either have proved impossible to implement or have provoked a huge political backlash. The truth is that we'll never know, because the Obama administration never really tried to push the envelope on either fiscal policy or debt

relief. And Geithner's influence was probably an important reason for this caution. Geithner saw the economic crisis as more or less entirely a matter of lost confidence; he believed that restoring that confidence by saving the banks was enough, that once financial stability was back the rest of the economy would take care of itself. And he was very wrong.

5.

Stress Test concludes on a note of celebration. Yes, mistakes were made, Geithner concedes, but on the whole, he tells us, Washington rose to the occasion, doing what was necessary to prevent another depression.

To the rest of us, however, the victory over financial crisis looks awfully Pyrrhic. Before the crisis, most analysts expected the US economy to keep growing at around 2.5 percent per year; in fact it has barely managed 1 percent, so that our annual national income at this point is around $1.7 trillion less than expected. Headline unemployment is down, but that's largely because many workers, despairing of ever finding a job, have stopped looking. Median family income is still far below its pre-crisis level. And there's a growing consensus among economists that much of the damage to the economy is permanent, that we'll never get back to our old path of growth.

The only way you can consider this record a success story is by comparing it with the Great Depression. And that's a pretty low bar—after all, aren't we supposed to know more about economic management than our grandfathers did?

In fact, we did have both the knowledge and the tools to fight this disaster. We know a lot about how fiscal policy works, and the United States clearly had the borrowing capacity to spend more on fighting unemployment. Whatever Geithner may say, it's clear that a lot more could also have been done to reduce the burden of mortgage debt. Yet we didn't do what needed to be done.

I like Geithner's metaphor of a stress test—and his book is very much worth reading, especially for its account of the crisis. But he's wrong about the outcome of that test. We can argue about how much of the blame rests with the Obama team, how much with the crazies in Congress who met every administration initiative, no matter how reasonable, with scorched-earth opposition. But the overall grade seems clear. We didn't pass the test—we failed, badly.

The Great & Beautiful Lost Kingdoms

William Dalrymple, The New York Review of Books May 21, 2015

“People of distant places with diverse customs,” wrote a Chinese Buddhist monk in the mid-seventh century, “generally designate the land that they admire as India.”

Xuanzang was a scholar, traveler, and translator. When he wrote these words in the seventh century, he had just returned from an epic seventeen-year, six-thousand-mile overland pilgrimage and manuscript-gathering expedition to the great Indian centers of Buddhist learning. Buddhism by then had been the established religion of most of South and Central Asia since it was taken up by Emperor Ashoka in the third century BC, around three hundred years after the Buddha’s death in northern India. The account Xuanzang wrote of his journey, Buddhist Record of the Western World, makes it clear that the places he passed through from western China to the Hindu Kush were then very largely dominated by Indic ideas, languages, and religions.

For most of its later medieval and modern history, it was India’s fate to be on the

receiving end of foreign influences. Following the establishment of a series of Turkic-ruled Islamic sultanates throughout India in the thirteenth and fourteenth centuries, Persian became the language of government across much of the region, and Persian cultural standards, in art, dress, and etiquette, were adopted even in Hindu courts. By the nineteenth century, English had replaced Persian, and India became instead a distant part of the Westernizing Anglosphere. To master English was now the route to advancement, and Indians who wished to get ahead had to abandon, or at least sublimate, much of their own culture, becoming instead English-speaking "Brown Sahibs," or what V.S. Naipaul called "Mimic Men."

But for at least seven hundred years before then, from about 400 AD to 1200 AD, India was a large-scale and confident exporter of its own diverse civilization in all its forms, and the rest of Asia was the willing and eager recipient of a startlingly comprehensive mass transfer of Indian culture, religion, art, music, technology, astronomy, mythology, language, and literature. Out of India came not just artists, sculptors, traders, scientists, astronomers, and the occasional fleets of warships, but also missionaries of three Indic forms of religion: Buddhism and two rival branches of Hinduism: Shaivism, in which Lord Shiva is revered as the Supreme Being; and Vaishnavism, which venerates Lord Vishnu.

If the scale and breadth of this extraordinary cultural diffusion is not as well known as it should be, that is perhaps partly because of a tendency to perceive and study this process as two separate disciplines, each the preserve of a different group of scholars. The many Buddhist monuments scattered around Afghanistan and the Taklamakan desert in northwest China, through which Xuanzang passed, for example, are usually viewed today as the first step in the story of the spread of Buddhism from India through Asia, or else as an episode in the history of the "Silk Road," a term coined in the nineteenth century by the Prussian geographer Ferdinand von Richthofen to describe the trading routes linking China with the Mediterranean West. Conversely, the spread of Indian and especially Hindu culture, literature, and religion southeastward to Burma, Thailand, Sumatra, Vietnam, Laos, Indonesia, Java, and the Malay Peninsula tends to be studied as part of the story of the adoption throughout Indo-China of the Sanskrit language and literary culture.

Recently, the Metropolitan Museum of Art in New York held two remarkable but quite separate shows that, along with their catalogs, reflected this conceptual division. The northward thrust of Indian influence was examined in a small but fascinating show entitled "Buddhism Along the Silk Road: 5th–8th Century," which was mounted in the Indian department of the museum between June 2012 and February 2013. The visual legacy of the diffusion of Indian art to Southeast Asia was the subject of a far more ambitious exhibition held at the Met a year later, in the summer of

2014, entitled “Lost Kingdoms.”

Both exhibitions were beautifully mounted and brilliantly curated. Yet to tell the diffusion of Indian influence at this period as two separate processes partially obscures a still more extraordinary story. For it is now increasingly clear that between the fourth and twelfth centuries the influence of India in both Southeast and Central Asia, and to some degree also China, was comparable to the influence of Greece in Aegean Turkey and Rome, and then in the rest of Europe in the early centuries BC. From the empire of the Gupta dynasty in the north and that of the Pallava dynasty in the south, India during this period radiated its philosophies, political ideas, and architectural forms out over an entire continent not by conquest but by sheer cultural sophistication.

On a bright, cloudless day last spring, I drove out of Kabul with a party of French archaeologists. We headed warily south through Logar province, past a succession of fortified mudbrick compounds surrounded by barren stripfields and sheltered by ragged windbreaks of poplar. After an hour, we turned off the road onto a bumpy mud track and headed up, through a succession of Afghan army checkpoints, into hills that were still, in April, etched with drifts of snow. At the summit, we crossed onto the high-altitude plateau of Mes Aynak, twenty-five miles southeast of Kabul.

The landscape could not have been more bleak or remote, yet in the sixth century this was the site of one of the most important Buddhist trading cities in Central Asia, a major stopping point for caravans of Indian traders and pilgrims heading toward China, and an important center for the northward diffusion of Indian culture, philosophy, and ideas. It was also a major stop for Chinese monks like Xuanzang heading southeast to the Indian cities of Sarnath, Bodh Gaya, and the great Buddhist university of Nalanda in northeast India, then the greatest repository of learning east of Alexandria.

Around us, all that remained of this once-great metropolis—the crumbling ruins of dark mudbrick buildings—stood out against the thick snowfields, their forms mutilated and eroded by two thousand years of winter rains. A hundred miles to the west lay the Bamiyan valley with its empty niches where once stood two of the world’s largest Buddha statues. When the Taliban destroyed the Bamiyan Buddhas in March 2001, the caves of Mes Aynak were being used by al-Qaeda for training some of the September 11 hijackers. Now the plateau was full of archaeologists urgently scraping away at the ground with trowels before the Chinese company that owns the land moves in, destroys the Buddhist remains, and turns it all into a vast copper mine.

Crowning the top of the hill above the excavations lay the newly uncovered ruins of a citadel of Buddhist monastic buildings. Here lines of stucco Buddha statues faced square slate Buddhist stupa shrines. On the walls of the chapels inside the stupas, sometimes almost invisible, at other times startlingly vivid, were the outlines of delicate sixth-century Indic wall paintings on plaster, distant cousins of those being painted at the same time in the Ajanta caves inland from modern Bombay. Here the archaeologists had recently found a spectacular life-sized gold face of a meditating Gautama Buddha sculpted in the North Indian style of the Gupta empire—tense-lipped, eyes half-closed, focused fixedly inward in search of enlightenment.

The influence of early India is equally striking in Thailand, Laos, and Cambodia—all places as different as one could imagine from the mountains of the Hindu Kush. The temple of Ta Prohm on the edge of Angkor Wat is perhaps the most spectacular example of this (see illustration above). The temple rises out of the trees of the Cambodian jungle. A mountain of masonry ascends in successive ranges, a great tumbling landslide of sculpted plinths and capitals, octagonal pillars and lotus jambs. Tree trunks spiral out of the vaults of the shingled Buddhist temple roofs like the flying buttresses of a Gothic cathedral; branches knot over Sanskrit inscriptions composed in perfect orthography and grammar, before curving around the reliefs of Indic lions and elephants, gods and godlings, sprites and tree spirits. The trees' roots fan out like fused spiderwebs and grip crumbling friezes of bare-breasted apsarasas (heavenly dancing girls) and dreadlocked sadhus (wandering holy men).

In the evening, by the light of a torch, the forty-foot-high face of the temple's twelfth-century founder, Jayavarman VII, looked out from the monsoon-stained ashlar of one of the spires. This was the Sanskrit name taken by a Khmer prince who had overthrown the Hinduism of his ancestors—venerated in the main Angkor temple complex—in favor of another rival Indic religion, Buddhism, while retaining in his service Indian Brahmins to administer his kingdom. Here he was still, staring out into the night, with his full lips and firm chin, broad nose and prominent forehead, his expression impassive but pensive and philosophical, a man both monk and monarch.

Jayavarman built his temple in the twelfth century, the same century that brought the Turks to India—the beginning of the end of the long period of Indian cultural influence throughout the region that had started seven hundred years earlier in Afghanistan at Mes Aynak. By this time, Buddhism had come to flourish across Afghanistan and Central Asia. Sanskrit, the classical Indian literary language, had become the language of learning in Tibet. Thriving along the trading cities between the Himalayas and the Gobi desert were Buddhist monasteries founded by Indians whose great libraries of manuscripts were written in Indian scripts. The murals in

several of the monasteries drew on the themes, styles, and motifs developed by Indian painters at Buddhist cave monasteries such as Ajanta.

In Quanzhou—China's greatest seaport, facing the Taiwan Strait—Chinese sculptors had created statues that took as their model the work of Indian artists of the Gupta Empire of the fourth and fifth centuries AD in such towns as Sarnath and Mathura in the Ganges plains. At the T'ang court, Sanskrit poetry exercised its allure on the imperial poets. But what had happened in Southeast Asia was even more remarkable and profound.

As the great Sanskritist Sheldon Pollock put it in his magisterial The Language of the Gods in the World of Men:

> All across mainland and maritime Southeast Asia, people who spoke radically different languages, such as Mon-Khemer and Malayo-Polynesian, and lived in vastly different cultural worlds adopted suddenly, widely, and long-lastingly a new language [Sanskrit]—along with the new political vision and literary aesthetic that were inseparable from it.

Sanskrit became throughout Southeast Asia the language of court, government, and literacy, and while it remained an elite tongue—like Latin in medieval Europe—it left a permanent mark on the map: the name Java, for example, derives from the Sanskrit Yadadweepa—the island is shaped like a yawa, or barley corn. Indeed so deeply immersed in Sanskritic culture did the elites of the region become, and so central was Indian thought to the conceptual world of the scholars, rulers, and administrators of the region, that they began renaming both themselves and their landscape after people and places in Indian mythology.

The earliest inscription in Khmer territories in Southeast Asia records how a fifth-century ruler in what is now Laos took the Indic name Devanika and the Sanskrit title Maharaj Adhiraja (King of Kings) during a ceremony when he installed a Shiva lingam—the symbol representing the Hindu deity Shiva—under the phallic-shaped mountain that towered over his capital of Champasak. There he consecrated a water tank that he named Kurukshetra, after the plain slightly to the north of Delhi where the great battle of the Sanskrit epic the Mahabharata was fought.

The towers of Angkor Wat—shaped in a quincunx, five points in a cross—were named after Mount Meru, the home of the gods believed in Indian myth to lie at the center of the world. A ninth-century inscription from Dong Duong—the main town on Vietnam's largest island—claims that the rulers of the area were descended from the sage Bhrigu of the Mahabharata. The principal city of what became Thailand

was named Ayutthaya, after Ayodhya, Lord Rama's capital in the other great Sanskrit epic, the Ramayana. These were conscious acts by which the living landscape was empowered with mythological Indic names and Indic metaphors of divinity, in effect extending the sacred landscape of the Indian holy land so that it became their own.

Exactly how this process happened is still a matter of dispute. Few now believe, as some Indian nationalist historians once claimed, that Indians founded imperial colonies in the Indo-China region they called the Lands of Gold. It appears instead that large numbers of highly educated monks and Brahmins traveled with the fleets of Indian merchant ships trading with Indo-China, carrying portable religious objects and artworks. They sought employment and offered in return their literacy—there appears to have been no written language in Southeast Asia before Sanskrit was imported—as well as their political, technical, and cultural knowledge.

In time, some merchants built armed coastal enclaves for themselves, much as the East India Company would later do at Bombay, Calcutta, and Madras. Meanwhile the emigrant Brahmins married into the families of kings and chieftains across the region, and established themselves as a wealthy, learned elite. Sanskrit inscriptions scattered from Burma to Java bear witness to the dominant status they achieved.

Today scholars talk of a reciprocal relationship between rulers in India and their counterparts in Southeast Asia, a process of interaction that was so advanced, according to Pollock, that "in the first millennium it makes hardly more sense to distinguish between South and Southeast Asia than between north India and south India.... Everywhere similar processes of cosmopolitan transculturation were under way." Pollock describes this cultural commonwealth as the "Sanskrit cosmopolis."

Yet for all this, the cultural flow was overwhelmingly one way: there are no inscriptions in the Khmer language in southern India, no Indonesian architectural forms in Bengal. Instead it was Indian religions and Indian languages that were in use in Angkor and the Siamese kingdom of Ayutthaya. As the historian Michael Wood nicely put it in his book India, "history is full of Empires of the Sword, but India alone created an Empire of the Spirit."

The earlier exhibition at the Met, "Buddhism Along the Silk Road, 5th–8th Century," contained only sixty objects filling a single room, but the artworks it featured—statuary, jewelry, architectural reliefs, wall paintings, found objects from India, Pakistan, Afghanistan, and the western reaches of Central Asia—were of spectacular quality and interest and many are illustrated in the online catalog.

The show, put together by the associate curator of the Department of Asian Art, Kurt Behrendt, demonstrated how the diffusion of Indian culture northward reached its peak in a period that Indian nationalist historians have called "the Golden Age of the Guptas," between 320 AD and the last part of the sixth century. This era of great prosperity and growing international trade was when Indian culture was at its most self-confident and widely admired. This was also the time that the Puranas, the ancient Hindu texts telling the stories of various deities, which form the template for much of modern Hinduism, were reaching their final shape and the astronomer Aryabhata was correctly calculating the length of the solar year, using two crucial Indian inventions: zero and "Arabic" numerals. At this time, too, Sanskrit drama and poetry reached their climax, the Kama Sutra was being compiled, and the playwright Kalidasa (circa 400–455 AD) was writing his great masterworks, including the story of Shakuntala, an orphaned girl who becomes an Indian queen.

Exhibit after exhibit in "Buddhism Along the Silk Road" showed how influential Gupta innovations were on the art of Buddhist Afghanistan and the lands beyond. A gorgeous fifth-century stucco head of the Buddha from Hadda, near the Khyber Pass, showed him locked in deepest meditation. Much of the paintwork has survived, giving it an eerily contemporary feel; yet the abstracted treatment of the eyes and the intersecting planes defining his forehead, eyebrows, and nose are all features shared with images then being produced in Gupta India.

Interestingly, according to Behrendt, the period of greatest Indian cultural influence does not seem to have been at the peak of the power of the Gupta emperors so much as during their precipitous decline in the later sixth century when tribes of Huns invaded northern India, bringing the two regions under one political leadership. This also created a diaspora of displaced Brahmins, artists, and intellectuals who scattered around the region, taking refuge in remote areas such as Kashmir and the furthest Himalayan passes, and so spreading ever more widely their ideas, rituals, and art forms.

The second Met show, "Lost Kingdoms," was a much grander affair: in fact it was the largest pan-regional show ever mounted of Southeast Asian sculpture, terracottas, and bronzes. It was put together by the curator of the Indian and Southeast Asian department, John Guy, who also edited the remarkable catalog. This book is a monument in itself, containing a set of remarkable essays representing the current state of scholarship, and weaving a diplomatic course through the thicket of national sensitivities of the countries from whom Guy borrowed the 150 often very large and often breathtakingly beautiful national treasures on show. Few of these lenders now wish to be looked on merely as Indian cultural satellites.

“Lost Kingdoms” opened by illustrating how cosmopolitan the Indian Ocean was in the early centuries AD, when each monsoon would bring a fleet of Roman ships to southern India in search of silk and spices. This caused a dramatic drain of Western silver to India, something confirmed by finds of several huge Roman coin hoards in Tamil Nadu. One South Indian king even sent an embassy to Rome to discuss the empire’s balance of payments problems. Some of these Roman and Byzantine ships traveled on to Southeast Asia, bringing with them luxury objects, as well as bullion. The show included a third-century Roman coin minted in Cologne and a Byzantine bronze oil lamp, both of which have recently turned up in excavations in Thailand.

New archaeological evidence suggests that the Indian Ocean trade began earlier than was previously realized, gaining momentum from the third century BC. The seepage of Indian religious ideas eastward was eased by the similarity of the pre-Buddhist nature cults that formed the bedrock of folk religions in both regions. This meant that Indian Sanskritic religion, and its pantheon of beliefs and deities, were easily grafted onto a common foundation of the cult of powerful nagas and yakshis, water and tree spirits, who were believed to rule the untamed landscape.

While there are traces of North Indian Gupta influence on the arts of Southeast Asia, by far the most influential region was southern India, which was then under the joint sway of the royal Indian Chalukya dynasty in south-central India and the Tamil Pallava dynasty, who controlled the southern tip of the Indian peninsula and who grew rich from the thriving international trade passing through their port of Mahaballipuram, some thirty-five miles south of modern Chennai. In Mahaballipuram today massive sculptures of elephants, warriors, and sages as well as flights of gods and goddesses still face onto what was once a quayside where, according to a seventh-century poet, “ships rode at anchor, bent to the point of breaking, laden as they were with wealth, with big-trunked elephants, and with mountains of gems of nine varieties.” This was the sight that greeted Indian traders returning from voyages across the Indian Ocean to Java and Bali.

It is no surprise that Tamil literature of this period is full of seafaring expeditions in search of gold, precious metals, and raw materials, in much the way the Chinese are doing in Africa today. One epic, the Manimekalai, includes stories of merchants who sailed to Java, while another epic describes kings who sent off fleets of ships laden with silk, sandalwood, spices, and camphor.

Inscriptions in the Tamil script are among the earliest in Southeast Asia: around 450 AD a ruler in West Java declared himself a devotee of Vishnu and identified himself with that god with these words: Purnavarman, the “great king, ruler of the world, whose footprints are the same as those of Lord Vishnu.” There are very clear

affinities between the sculpture on the Pallava temples at Panamalai in Tamil Nadu and the reliefs at the Dieng and Borobodur temples over two thousand miles away in central Java. Four hundred years later, large-scale sculptures in the Pallava style were still being produced on the Malay Peninsula.

In the "Lost Kingdoms" exhibition, successive rooms illuminated successive waves of Indian influence, starting with the art of Southeast Asia's early Buddhist sites. The highlight of this first Buddhist phase was a podium containing four large, seated Buddhas, one each from Vietnam, Cambodia, Myanmar, and Thailand, arranged back to back, facing the cardinal points of the compass. Each was shown to be deep in meditation, smiling yet tense with spiritual concentration as each attempted to make a spiritual crossing of the turbulent waters of existence and rebirth, from samsara—the illusory physical world—to spiritual liberation. Each Buddha was chosen to represent a distinct sculptural tradition, each with its own personality, flavor, and style, where Indian inspiration had been transformed by local artists to produce something quite new and distinct. The connection to India was as clear as the degree to which the artists in Indo-China had radically transformed their models.

While the Buddhist presence in Southeast Asia appears to be closely linked to merchants and their commerce, the Brahminical Hindu presence that succeeded it was more closely associated with kingship and statecraft. Vaishnava Hinduism arrived

a little later than Buddhism, initially as a vehicle for chiefs to sacralize their rule. A spectacular Vietnamese Vishnu towered above the gallery, the perfected human, tall, severe, and authoritarian, and the ideal model for divine kingship. Yet within a hundred years, by the seventh century, the rival Hindu cult of Lord Shiva had begun to dominate the cults of both the Buddha and Vishnu. Here the most striking images were those of Shiva's beautiful consort, Uma, embodied in two deeply graceful, sensual, slender-bodied female statues (see illustration on page 12). Both are probably portraits of actual Khmer princesses and sculpted with a startling naturalism: confident, proud, full-lipped, tight-bodied, strikingly more muscular and less voluptuous than their Indian counterparts. They were placed facing one another across the gallery, competing for attention in the Met as once these woman might have faced off against each other in a Khmer court.

While the direction of influence was always from India to Southeast Asia, the exhibition clearly showed the degree to which Southeast Asians transformed what India sent. At every point Indian influence was adapted rather than slavishly adopted. This was not just a matter of style: the iconography was also sometimes quite different. A sculpture of the Buddha's first sermon in central Thailand had, for example, an audience of dreadlocked Hindu holy men, their faces wracked with confusion as the Buddha's words challenged beliefs they had held all their lives. There is no parallel for this image anywhere in India.

India turned more inward-looking in the twelfth century as it battled successive waves of Turkic invaders from the north. At this time Chinese influence slowly replaced India's in much of the region, as the decline of Indian influence coincided with a rare moment of expansion of the Chinese presence, culminating in the fifteenth-century voyages of Admiral Zheng He, which reached as far as Jeddah on the Red Sea and Malindi in East Africa.

Today this battle for influence continues in countries such as Myanmar and Sri Lanka, which find themselves caught between the two great economic powers of the future, as China and India again confront one another, each aiming to dominate the lands and oceans that lie between them. In the last decade Chinese growth has far outpaced that of India, as has the power of the Chinese navy to project itself into the Indian Ocean through a line of newly acquired deepwater ports, the "String of Pearls" stretching from Gawda in Pakistan through Trincolmalee in Sri Lanka eastward to the Chinese mainland. But Indian soft power in the form of its culture and movies remains dominant in much of Southeast Asia, and as "Lost Kingdoms" demonstrates from a very different period, India's ability to exert power through the sheer charm of its civilization should never be underestimated.