

E X C L U S I V E
E X C E R P T

RESET

How to Change What's Not Working

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Introduction

1.

There was a red phone in the receiving area at Northwestern Memorial Hospital. It rang constantly. Usually, it was a nurse or staffer calling to inquire about a package: *Where is it? I ordered it days ago!*

In response, the person fielding the call would go hunting for the person's package, which could be challenging, since the receiving area looked like a hoarder's attic. A photo from the era captures the vibe:



In 2016, it took an average of three days for packages to get from the receiving area to their destination in the hospital. Three days.

Just to linger on the absurdity: A nurse might order some vials of medicine, and FedEx might fly that medicine across the country in one day, and then getting that medicine from the receiving dock to, say, the third floor of the same building would take another three days.

It was actually worse than that. Because there was a considerable amount of *variation* in the delays. If the delivery time had been predictable—three days to wait, every time—then the hospital staffers could have adapted. Built in a buffer time. But the wait was sometimes one day, sometimes five. It was plan-proof. It was maddening.

The consequences of the delays were severe. Sometimes medicines requiring refrigeration would spoil, right in the box. Sometimes clinicians and staff, fearing packages were lost, would reorder the same items—often using expedited shipping—which spiked expenses. Sometimes people would try to bypass the receiving area by having packages delivered directly to department floors, making it impossible to maintain an accurate inventory system.

No one liked the way the system worked. But it had been dysfunctional for so long, the dysfunction had come to seem like the natural state of affairs. *Of course it takes three days to get a package delivered. It has always taken three days.*

The receiving area team was stuck.

This is a book about getting unstuck. You'll learn how to reset your work and start making meaningful progress again.

Feeling stuck is dispiriting. The failure to improve and thrive can seep into your self-image. "I didn't make progress" can easily slip into "I'm not *capable* of making progress."

That defeatist mentality prevailed in the Northwestern Memorial Hospital receiving area. “We were just the pariahs of the hospital,” said Paul Suett, who joined in 2016 to serve as the hospital’s supply chain performance manager. He’d been hired to restore sanity to the receiving area.

“My role was to show them that there’s another way. . . . There is a way to succeed,” he said.

To unlock progress, Suett knew he needed to get his team to rethink the way they worked. As Paul Batalden, a health care expert, once said: “Every system is perfectly designed to get the results it gets.” Meaning that once you change your aspiration—when you set your sights on *different results*—the system you have is wrong, by definition. Because the system is designed, intentionally or not, to yield the results you got yesterday.

Suett had inherited a system designed to deliver packages in three days. And to him—given his background in performance improvement—some of the refinements needed were immediately obvious.

But for change to happen, it wasn’t enough for the improvements to be obvious to him. They had to be obvious to his team members, and they had to *want* to make the changes.

He asked them, “If I can show you how to simplify your work—and make it easier on you—then will you come along on the journey with me?” They agreed to listen.

He started by asking them about their own complaints: What was getting in the way of their ability to do good, quick work? Several of them brought up the carts that they used to deliver packages—the carts’ wheels frequently jammed up. It was annoying and slowed them down.

Suett agreed, instantly, to buy new carts. The costs were trivial relative to the cost of the department. And it was a signal to them: I really am listening.

He challenged the department to reach a new goal: delivering packages within one day of arrival. That's what their "customers"—the people they served in the hospital—would want from them, he argued, and that's what they needed to provide.

He invited his team to help him diagnose the "waste" in the system. Waste (a topic we'll explore in chapter 7) is defined as any activity that doesn't add value for the customer. Suett's team came to realize that every time they picked up the red phone, it was waste. Every time. Because their internal customers *didn't want to have to call to check on a package!* So even if the call was handled promptly and politely, it was still waste. The curse of a bad set of habits is that all the unnecessary things you're doing actually come to seem necessary.

If the team could stop those calls from coming in, they could reclaim those wasted hours for proactive work. So for 12 business days in a row, they spent one hour "walking the process" from end to end. Noting the way things worked. Spotting problems. Asking questions.

The staff agreed to let Suett shoot video of their operations, and afterward, Suett showed them some clips, like a coach reviewing game film. In one case, a worker had picked up a box five different times before he actually processed it. "Every one of those five steps had a cost," said Suett. "Why don't we just eliminate it? You pick it up once and you process it." The guy had no idea he'd been doing that.

When the team analyzed its own work, they found that only 38% of the time they spent processing packages was "adding value" for the customers they served in the hospital. The rest of it was waste. Spurred on by this recognition, the team started rebuilding the process from top to bottom.

Perhaps the most fundamental change they made was to move

away from “batching” packages. Batching involves performing a single operation on (in this case) a pile of packages before moving on. So maybe one person would put a label on 10 packages, then put them on a cart and roll them to the next area, where somebody else would log them into the computer, and so on. Batching seemed intuitive. Surely it would be inefficient to deal with one package at a time?

But batching caused needless delays. To help his team see this, Suett led an exercise. He asked 10 staffers to sit at a long table, 5 on each side, and challenged the two sides to compete. The goal? To get every person to sign their name on five sticky notes as quickly as possible.

There was a twist: On one side of the table, each person would write their name on all five notes, then pass the stack to the next person. (That’s a batch process.) On the other side of the table, the first person would write their name on one note, immediately pass it on, then write their name on the second note, and so on.

The staffers quickly caught on: With the second process, everyone ended up writing simultaneously. Nobody was idle. The notes flowed down the line, steadily, from person to person. It was far faster than the batch process. “It was an eye opener for everybody,” said Charles Shipley, one of the workers. “He won a lot of people over with that experiment. It was very convincing.”*

Afterward, they began to overhaul the batch processes, eliminating unnecessary steps and moving toward a more continuous operation. Suett’s mantra was: *Keep the river flowing*.

And it flowed. Within six weeks, the unthinkable had happened:

*Just want to be clear that batching isn’t always a bad thing. Like most things, it depends. In the receiving area, it was problematic, but please don’t conclude you should wash your clothes one item at a time for the sake of “flow.”



90% of the hospital locations were receiving daily deliveries. Again the picture told the story (see above).

An astonished hospital executive brought a group of colleagues to the receiving bay to witness the transformation. And the effects rippled throughout the hospital. As people gained trust in the receiving team, they stopped ordering shipments directly to their departments. They stopped overordering, knowing they'd be able to replenish supplies in a timely manner.

The total estimated cost savings from unclogging the system was over \$20 million, according to a case study written by John Nicholas, Hussam Bachour, and Suett.

The red phone stopped ringing.

Many years later, the receiving area continues to hum along efficiently.

Every system is perfectly designed to get the results it gets.

2.

In the fall of 2021, I went to Chick-fil-A to fetch dinner for my family, and unexpectedly, I came home with a book idea. (Also, more expectedly, some fries and nuggets.) I was so awestruck by the efficiency of the drive-thru—you’ll hear all about it in chapter 4—that I started researching the question: How do you make things run better?

Eventually, though, I realized that the idea of “better” didn’t really capture what I was after. “Better” could be any performance improvement: say, an Olympic swimmer shaving a hundredth of a second off their already stellar race time. Rather, I found myself gravitating toward situations where people were bogged down. These were not “crisis” situations. They were more like bad equilibria: situations that were unsatisfactory and self-sustaining. Kind of like the hospital receiving area.

Surely we’re all familiar with situations like this. All of us get stuck sometimes, and it’s easy to see why. We’re stifled by the gravity of the way we’ve always done things (*inertia*). We consider so many potential possibilities for change that it freezes us (*decision paralysis*). We spend so much time fighting with colleagues about what we *should* do that we never actually accomplish anything (*politics*). And we exhaust ourselves chasing today’s problems, which always seem to crowd out tomorrow’s opportunities (*firefighting*).

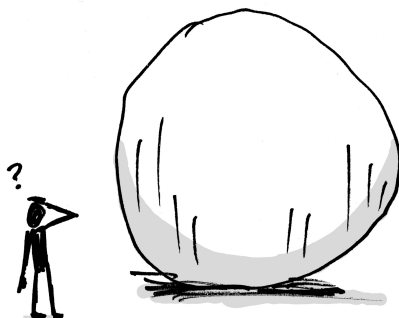
The question is: How do we reset things? How do we change what’s not working?

For about two and a half years, I chased answers to those questions. The principles ahead are drawn from: 240 interviews from people in countless different industries. An exploration of relevant findings from psychology and other disciplines. And a deep dive on certain methodologies that shine at helping people overcome

inertia and make progress within short timeframes: agile and scrum, solutions-focused therapy, the incident command system, kaizen events, design sprints, business turnarounds, rapid results projects, and more.

Let's start at the beginning.

When you're stuck, it's like your path is blocked by a boulder. It needs moving, but how could you possibly move it? It's too big. "We need to deliver all the packages we receive within a day." *Well, sure, that would be lovely, but we have NEVER DONE THAT, so what makes you think that is possible?* It feels overwhelming.

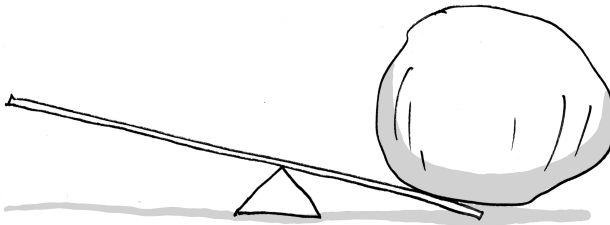


Often, we make the mistake of thinking that we're mired down because of a lack of effort. Notice that a lack of effort wasn't the problem in the receiving area—it probably took *more* effort to sustain the bad system, because of all those calls to the red phone.

In other words, you can't just hurl yourself at the boulder. "Shoving harder" is not a viable plan (unless your plan is to slip a disc).



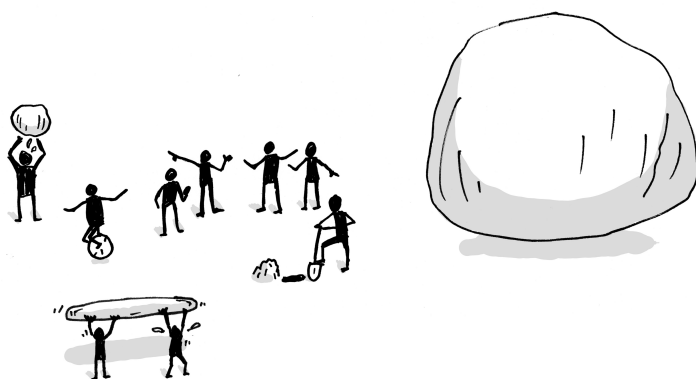
To move the boulder, you need to be smart and strategic. Because of the complexity you face, you can't change everything. You can't change *most* things. You can't even change a respectable fraction of things! But, with a bit of prodding and catalyzing, you can change *something*. A well-chosen something. We'll call that "well-chosen something" a Leverage Point (a term popularized by the systems theorist Donella Meadows).



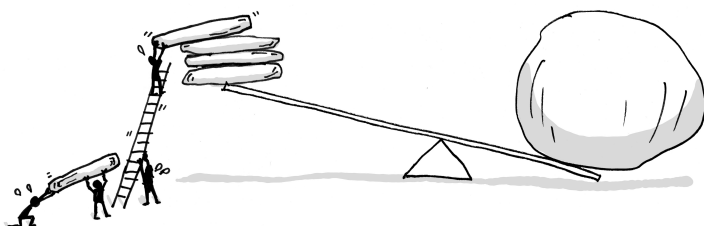
Leverage Points are interventions where a little bit of effort yields disproportionate returns. Of the universe of things you *could* do to improve a situation, the Leverage Points are the things you *should* do. In the hospital receiving area, for instance, one of the key Leverage Points was moving away from batch processes.

Without a Leverage Point, you'll never transform how you work. In the picture above, the Leverage Point is the fulcrum that supports the lever.* But it's not *sufficient* to move the boulder. The boulder hasn't moved yet. To actually move it, you need to apply some resources to the other end of that lever.

Where do you get those resources? Well, right now, you and your team have a wealth of resources—time, money, enthusiasm, processes, etc.—that are being used in various ways.



The trick is to align all of those assets so that they push in the same direction. You need to Restack Resources on the Leverage Point.



*Probably the less literal we make this analogy, the better. I'm no physicist. Just roll with me here.

And that's the core framework we'll unpack in this book: To make things happen, you should Find Leverage Points and Restack Resources to push on those points.

Simple, eh? Just do those two things and—POOF—change will flourish!

Well, yes, it can be that simple—but first comes some legwork. To start, you'll be searching for points of intervention where small investments yield big returns. How do you spot those magical Leverage Points, exactly? If they were easy to find, you likely would have found them already. (For years, it didn't occur to the hospital receiving area to move away from batch processing.)

We'll spend the first section of the book on the essential detective work of Finding Leverage Points, covering five methods for locating them:

- Go and see the work (*in chapter 1*): Observe up close the reality of your work.
- Consider the goal of the goal (*in chapter 2*): Identify alternate pathways to your ultimate destination.
- Study the bright spots (*in chapter 3*): Analyze and replicate your own best work.
- Target the constraint (*in chapter 4*): Assess the #1 force that is holding you back.
- Map the system (*in chapter 5*): Rise above the silos to spot promising targets for action.

Then, in the second section, we'll turn our attention to Restacking Resources, a quest that comes with its own challenges. The chief obstacle is that you almost certainly don't have a bunch of unused assets that you can mobilize to support your change. You have what you have. And that means if you want to press harder on

a Leverage Point, then you need to draw resources from *something else you're doing*.

To spark change, we shouldn't think AND, we should think IN-STEAD OF. Less of this, more of that.

And those trade-offs are painful. Probably no one on your team, today, believes that what they're doing is pointless and therefore their energies can be repurposed in a new direction. So where do you find resources to pile up on Leverage Points when all of those resources are presently committed to something else?

We'll explore six strategies for marshalling resources while minimizing the sting of the trade-offs involved. Here's how you can Restack Resources:

- Start with a burst (*in chapter 6*): Begin with an intense and focused period of work.
- Recycle waste (*in chapter 7*): Discontinue efforts that don't serve the mission.
- Do less AND more (*in chapter 8*): Shift resources from lower-value work to higher-value.
- Tap motivation (*in chapter 9*): Prioritize the work that's required *and* desired.
- Let people drive (*in chapter 10*): Give your team the autonomy to lead the change efforts.
- Accelerate learning (*in chapter 11*): Get better, faster feedback to guide your work.

As you apply this framework, you'll likely encounter powerful obstacles: tradition and resistance and bureaucracy and indifference. But if you can manage to move the boulder—even by just a few inches—you'll find there's a powerful force in your favor. And it's one you might not expect.

Consider a study conducted by Teresa Amabile and Steven Kramer. They were interested in employees' "inner work life," meaning their "thoughts, feelings, and drives triggered by the events of the workday." To trace these everyday emotions, Amabile and Kramer asked employees to keep daily diaries reflecting on their work. Eventually, 238 employees across 7 companies submitted over 12,000 diary reports.

What emerged from these diaries was a crystal-clear finding that the researchers called the *progress principle*: "Of all the things that can boost emotions, motivation, and perceptions during a workday, the single most important is making progress in meaningful work." According to the employee diaries, 76% of people's best days involved progress; only 13% of their best days involved setbacks.

Progress energized people and made them happy. Setbacks did the opposite. No other work dynamics had as dramatic an effect on employees' inner life.

What's particularly striking about the research, as Amabile and Kramer chronicle in their book *The Progress Principle*, is that most bosses were oblivious to the value of progress as a motivator. "When we surveyed managers around the world and asked them to rank employee motivators in terms of importance, only 5% chose progress as #1," said Amabile in a speech. "Progress came in dead last."

It's a stunning oversight: The biggest motivator of employees is nowhere on the radar of the average boss.

But you can overcome that mistake. Progress will be your secret weapon, the way it was for Paul Suett at Northwestern Memorial Hospital. He showed his team how to make things better: *You don't have to pick up the box five times. You don't have to batch the packages. Let the river flow.*

And they responded! It was their work and their enthusiasm that

ultimately transformed the department, not his. Frank Marasso was a leader in the group. He spent most of his career—42 years and counting—in the receiving area. He said, “The minute we actually got our FedEx and UPS packages—all 600 pieces—worked up and delivered, and that room’s empty at the end of the day? I was like, ‘Yeah, this is cool.’” He admitted he was skeptical of Suetts’s ideas at first. But the results made him a believer: “An empty room is a beautiful thing, man.”

This transformation did not require a huge infusion of new people or new assets. It was the same staff in the same space with the same goal they’d always had: to process and deliver packages for a hospital. But after carefully reimagining their work, they went from “pariahs” to superstars.

In the chapters ahead, we’ll explore how other groups faced down their own daunting obstacles: A library on the cusp of collapse. A public company losing a dangerous number of clients. A marriage fraying at the seams. A hospital with burned-out and disengaged staffers.

All of them, as you’ll see, moved the boulder.

We’ll encounter cases involving military planes, music apps, radiology clinics, church services, car dealerships, and archery competitions. We’ll investigate mysteries: Why the middle is the roughest part of a change effort. Why *inefficiency* can sometimes accelerate progress. Why “getting buy-in” is the wrong way to think about change. Why people may think they understand the systems they depend on better than they actually do. (Spoiler on that last one: Realizing this can be shocking to the people involved—see the next chapter for more.)

You’ll also learn how five million cats’ lives were saved, and perhaps most dramatically of all, how one father got his kids to clean their room. With enthusiasm.

Ultimately, the payoffs for our exploration ahead are simple but powerful: The relief of shaking off bad habits. The pleasure of experiencing movement where stasis had prevailed. The sudden snap of agency that comes from reminding yourself: *I'm capable of changing this situation.*

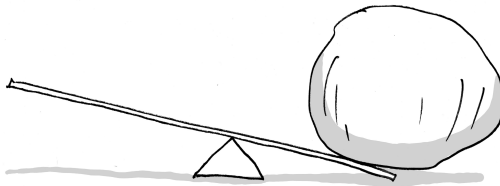
Yesterday, we were spinning our wheels. Today, we reset and start rolling forward.*



* A huge thank-you to my friend and fellow business author Jake Knapp, who came up with the idea for the boulder/lever/fulcrum artwork and contributed the drawings. I love what they add to the book and I'm grateful!

SECTION 1

FIND LEVERAGE POINTS



Chapter 1: Go and see the work



Chapter 2: Consider the goal of the goal



Chapter 3: Study the bright spots

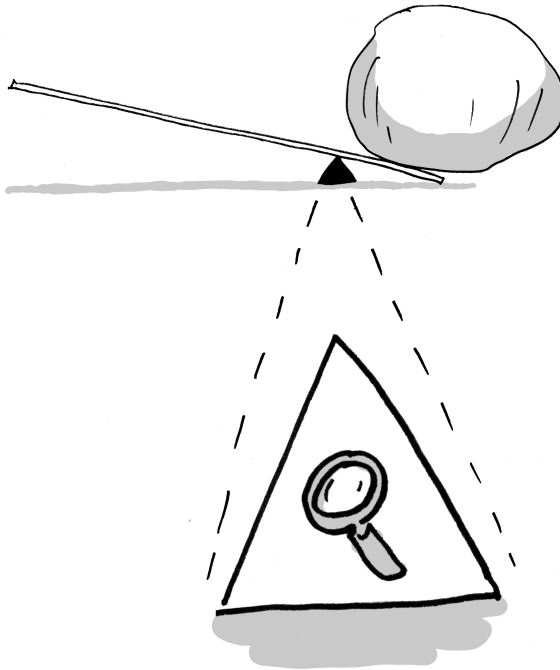


Chapter 4: Target the constraint



Chapter 5: Map the system

GO AND SEE THE WORK



**>> You can Find Leverage Points by observing
up close the reality of your work.**

GO AND SEE THE WORK

1.

In 2016, Karen Ritter, an assistant principal at East Leyden High School (near Chicago), wanted to understand how the school could better serve its students. So she chose to do something unorthodox. As part of a program called “Shadow a Student Challenge,” created by the Stanford d.school and the design firm IDEO, she followed around a ninth-grader, Alan, for an entire school day.

Her day with Alan started in PE. She gamely ran sprints in the gym while students gawked and grinned. Afterward, the academic school day began. She sat next to him in class. Completed assignments, just like he did. Ate cafeteria food. (“Lunch was difficult,” she said diplomatically.)

Ritter’s experience was covered by PBS for a news segment, and watching the video of Ritter’s day is a bit like watching a balloon deflate in slow motion. At one point, the journalist asks her how she’s doing. “I’m holding up,” she says with a strained smile. (Body language: *I am not holding up.*)

Particularly draining was Alan’s algebra class. Because of his low

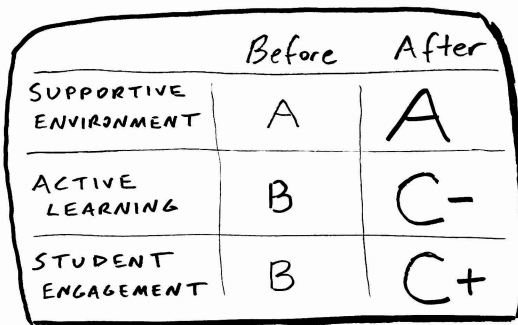
test scores in math, he'd been slotted into a double-length remedial period. The camera caught Ritter sneaking looks at the clock, just like a real student. After a long stretch of instruction, the bell rang, but to Ritter's chagrin, it wasn't for her. There were 30 more minutes to go. "It was brutal to sit through that," she said.

The day before her observation, Ritter was asked to complete a report card, grading the school on a variety of factors. For "Supportive Environment," she gave the school an A. Then, after her day of shadowing, she was asked to revisit those marks.

The grade for Supportive Environment stayed an A: She was pleased with what she experienced. But on other factors, the grades deteriorated. Before the day, she'd scored the school a B on this statement: "In this school, students learn actively, creating, questioning, discovering." After her day as a student, the B cratered to a C-minus.

Similarly, with the grinding double-length algebra class fresh in her mind, her score for "Student Engagement" dropped from a B to a C-plus.

By shadowing a student, Ritter discovered that some of her intuitions had been exactly right. The school really did provide a supportive environment. In other places, though, her intuition had been way off the mark.



	Before	After
SUPPORTIVE ENVIRONMENT	A	A
ACTIVE LEARNING	B	C-
STUDENT ENGAGEMENT	B	C+

She wondered about the double-length math period, for instance. “We don’t have proof that this is improving [students’] learning,” she said. “It’s just making them more miserable.” For Alan, the double-length class had crowded out his real interests. He had wanted to take classes in French and automotive skills, but he couldn’t do both. (Other students were able to pick two electives.)

Ritter’s goal, in shadowing a student, was to look for ways to improve the student experience. Her day with Alan had helped her identify two potential Leverage Points: (1) reconsidering the automatic slotting of students into double-length remedial periods; and (2) encouraging faculty to be more interactive in their classrooms. The school would later act upon both of these ideas: The faculty received professional development in better engaging students, and the school subsequently changed its policy to ensure that every student could have at least one elective. (Previously, some kids who had both a double-reading and a double-math course had no choice at all in their schedule!)

In this section, we’ll explore five methods for identifying Leverage Points. Finding them will require some detective work: Sometimes they are hidden—masked by habits or assumptions. Other times (as we’ll see on the next few pages), they can be quite obvious to anyone who looks. Either way, *we have to go looking*—and we have to know where to look. The tools in this section will give us five independent ways to conduct the hunt.

What we’re looking for are interventions that are both *doable* and *worth doing*. “Doable”: meaning that they are possible in the short term. And “worth doing”: because we aspire to move boulders, not pebbles.

The first method for finding Leverage Points is the one used by Ritter, an approach that Nelson Repenning calls “Go and see

the work.”* Repenning is a professor at MIT who studies system dynamics. He told me that of all the principles he’s shared with executives and students over the years, the one that most reliably pays off is: *Go and see the work*.

Meaning: If you’re a school principal, shadow a student for the day. If you’re a factory manager, follow the production from start to finish. If you’re a consultant, map out the flow of activities on a single client engagement.

“Going and seeing the work” is what the hospital receiving area team did when they began their overhaul: They followed packages through the system, from the delivery dock to their ultimate destinations in the hospital.

One executive, following Repenning’s imperative to see the work, discovered that in his company, there was a woman who diligently maintained a repository of the firm’s engineering documents. She spent long stretches of time printing high-definition color prints and organizing them in a room full of file cabinets.

But there was a digital repository that auto-archived these files. It had existed for years. And word never got back to this poor woman.

“When you go see the work,” wrote Repenning and two colleagues, Don Kieffer and Todd Astor, “if you aren’t embarrassed by what you find, you probably aren’t looking closely enough.”†

* Repenning’s phrasing is a riff on a well-known operations concept called “going to the gemba,” which originated with Taiichi Ohno, the godfather of the Toyota Production System. “Gemba” comes from a Japanese term meaning the “actual place.”

† Note that this spirit of examination—the genuine desire to get closer to the truth—is the heart of “going and seeing the work.” This is in sharp contrast to the CEO who conducts a stage-managed visit to a factory or field office for the sake of good optics: *I am an enlightened leader who enjoys mingling with you common folk!*

Repenning, Kieffer, and Michael Morales published a revealing case study in *MIT Sloan Management Review*. Morales, the president of a Panama City plant that made corrugated boxes, wanted to understand why his paper losses during production were higher than the industry average. So he went to see the work. And the authors reported what happened next:

Mike left his office and visited the factory floor to watch the work and understand its current design. He quickly observed numerous problems. The paper was often too wide, resulting in extra losses from cutting. In addition, paper rolls were often damaged by the forklifts that moved them . . .

Perhaps most notably, Mike observed that the main corrugator machine stopped at 11:30am. Assuming it was an unplanned outage, Mike rushed to the machine only to learn that the machine was stopped *every day* at lunch. Stopping and restarting the machine at lunchtime not only decreased productivity but also increased the probability of both damage to paper and mechanical problems. Interestingly, the lunch break turned out to be a response that had been instituted years ago in response to instability in the electric power provided by the local utility—a problem that had been fixed long ago.

Morales's investigation, then, surfaced some obvious Leverage Points for whittling down paper waste. Within two months, paper losses fell from 21% to 15%, reflecting a savings of \$50,000.

Now, your first reaction to this story might be: *Well, sure, if you're doing stuff that's obviously dumb/wrong, then you can easily fix the dumb/wrong stuff.* But be careful: Repenning and Kieffer wrote, "We have discovered similarly 'obvious' issues in almost every piece of work we have ever studied. . . ."

Glaring problems are sometimes the legacy of past *solutions*—improvisations and workarounds. Take the case of the paper plant: As the plant manager, you observe that you’re getting unsteady power to your corrugating machine around lunchtime. It’s not good for efficiency, and it’s not good for the machine itself. So you schedule a shutdown every day to preserve the equipment. That’s proactive and wise. A great short-term solution.

But of course you’ll never get an official announcement from the utility saying, “All Clear!” so the daily shutdown continues. Weeks become months, months become years, and habits become enshrined. Your plant depends on so many habits for its basic functioning that eventually you stop distinguishing them individually, and rather they just collectively become *The Way We Do Things*. A new employee, learning the ropes, is taught: Every day, at lunchtime, we shut down the corrugating machine.

So what looks like “mismanagement” is often the accidental accretion of outdated habits. And the way you can begin to detect and ultimately erode that accretion is by *going and seeing the work*. You’ll spot places where you and your team have acclimated to problems—instead of fixing them. Those long-tolerated bad habits are Leverage Points: Correcting them is doable and worth doing.

For knowledge work, this type of observation can be harder. You can trace a corrugated box through a factory. But can you trace, say, the development of a market analysis by a consulting firm?

Yes. For sure, yes. But it’s not as tangible. You will have to make it tangible by mapping out the flow: *Okay, for the Kipon Trucking account, we first had the kickoff meeting (two hours), and then we prepared a research plan (six days), which we sent to the client, who returned feedback (two days), and then the engagement manager gave assignments to the five core team members (one day), and then . . .*

You’re making the invisible visible. Think whiteboards and

markers. How long does each step take? Where does work get stuck or delayed? How do communications ping-pong between the team and the client? In what steps do the greatest leaps forward seem to happen? Protect those. And in what steps do the efforts seem to add little value? Rework or eliminate those.

In short, you can still *go and see the work*.

The key thing here—and the radical departure from normal, everyday work—is that you are substituting experience for conjecture. Tom Chi, a co-founder of X, the ambitious R & D lab at Google, said that most corporate decisions are made using “guess-a-thons.” People sit around and duel in the land of ideas.

A sample meeting: Ted thinks you should try the Bold Strategy. Marisa hates Ted, so she pushes back on it. Helen, anxious about making decisions, always suggests waiting for more data. Gregg is always a hair’s breadth away from making a strained face and asking *How will it affect the CULTURE?* (Gregg is everyone’s least favorite part of the culture.)

And on and on it goes. Ultimately, as Chi said in a workshop, “Either the person who is best at arguing or the person with the highest title in the room ends up deciding.” The tragedy, of course, is that when you make decisions that way, you’ve made important decisions based on cognitive vapor.

“Smart people will always come up with smart reasons for their guesses,” said Chi. “But that does not mean that their guesses are not guesses. . . . Because it actually doesn’t matter how much you agree or disagree—if it sounds smart or doesn’t sound smart. The only thing to listen for is: When I hear something, is it a guess or is it a direct experience? If it’s a guess, it needs to be treated a certain way. . . . But if it’s a direct experience, then that’s the stuff we want to make decisions off of.”

Chi’s challenge to us is to get out of the “medium of guesses”

and into the medium of reality. When we go and see the work, we stop debating ideas and start discovering them.

2.

Going and seeing the work can be particularly important when things stop working. Your marriage hits a rocky patch. Your sales start drying up. Teachers leave your school faster than you can replace them.

Because when unexpected problems arise in our organizations, it often reveals that we didn't know as much about our "system" as we thought we did.

On this point, consider a study by the psychologists Leonid Rozenblit and Frank Keil, who asked people to assess how well they understood certain familiar devices. *How well do you understand how a zipper works? A flush toilet?* People reported moderate levels of understanding. On a seven-point scale, with seven reflecting the highest level of understanding, the average score landed a bit under four.

After the participants scored themselves, Rozenblit and Keil put them to the test: *Okay, write out a step-by-step explanation of how the device works, from the first step to the last. Feel free to draw pictures to get your meaning across.*

There's a great YouTube video that brings this study to life. A teenager named Alex Nickel, inspired by the research, asked some teenage peers to explain how a toilet works. Their answers were memorable:

TEEN 1: Well, so there's a handle, and you flush it, and it goes through some machinery . . .

TEEN 2: There's like pipes going up to the top thing, and then you press the flusher thing, and then the water goes all around and it flushes the gross stuff out . . .

ALEX NICKEL: How does that actually, like, flush it out?

TEEN 2: It goes down a pipe? I don't know.

TEEN 3: Water comes out into the bowl and, like, PUSHES the stuff down . . .

ALEX NICKEL: Can you elaborate on that? Like, the pushing?

TEEN 3: Um, I'm not sure.

To get back to the original study: After the participants had finished their “explanations” of the device, they were asked to rate their understanding of the device for a second time.

Their self-assessments plummeted.

“Nearly all participants showed drops in estimates of what they knew,” wrote Rozenblit and Keil in their 2002 study. The psychologists called this the “illusion of explanatory depth.” As they wrote, “Most people feel they understand the world with far greater detail, coherence, and depth than they really do.” When participants were prodded to produce an explanation, they realized, *I know a lot less than I thought*.

In another study of this illusion, conducted by Rebecca Lawson and published in *Memory and Cognition*, people were presented with this skeletal picture of a bicycle frame and asked to add pedals, a chain, and the remaining parts of the frame to the sketch:



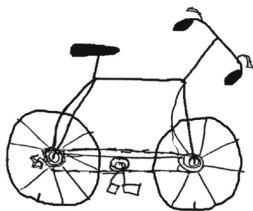
(Before you look down, pause. Could you do this exercise correctly? How confident are you?)

One person drew a bike like this. Take a second to analyze what's wrong here.



One problem: This bike won't move; the pedals aren't attached to any moving part of the system. And look how high the pedals are! Are people supposed to pedal with their kneecaps?

Here was another participant's bike:



At first glance, this looks pretty fancy. Spokes and hand brakes were added, unsolicited, for extra realism! But notice the chain and the frame are connecting both wheels. Which means this bike can't be turned. It's a one-way ticket to the emergency room.

Here's one more point of interest about that last bike: The person who drew it reported that *they went cycling most days*. (Presumably in a straight line?)

I'm poking fun but let me confess: I had to look up the answer

about how a bike works. I'm pretty sure I would have drawn the chain around both wheels, too.

So I'm inclined to empathize with the cyclist. After all, you don't need to *understand* the bike to use it effectively! Isn't a functional understanding sufficient?

The problem comes when we mistake *functional* understanding for *systemic* understanding. We think because we can *use* something, because it operates as we expect, that we understand it. And that's a problem, because when the bike or the zipper or the toilet stops working, we're sunk. We realize that underneath our functional level of understanding, there's nothing.

3.

That sudden awakening is what befalls many businesses just as they are plunged into crisis. Businesses struggle, and their leaders think, *It'll turn around. Just wait a little longer. I've run this place for 10 years. We've been through hard times.*

But then, sometimes, things don't turn around. And because dramatic action wasn't taken earlier, when it was a choice, it becomes mandatory. Change or go bankrupt.

In those situations—when a business is in danger of failing—investors or board members might hire a “turnaround consultant.” That's someone who parachutes into the company, takes over the place, makes a bunch of changes, and then leaves after a few months.

Consider how odd this arrangement is. You might think that if your business was in a pickle, you'd *seek advice* from someone with turnaround expertise, the way that you might visit a therapist if your marriage was foundering. This isn't that. This is handing over

the reins to a stranger. It's like letting the therapist *move in with your spouse*, fix the relationship, then turn it back over to you.*

Despite the dire circumstances involved—businesses on the brink of bankruptcy—turnarounds frequently succeed. We're used to thinking about organizational change as slow. But, no, in these situations, a company might be rescued—from life support to basic health—in a matter of months.

So let's think like a turnaround consultant. You're coming into a company that once was viable and now isn't. This predicament triggers the shift from functional to systemic understanding (as in the toilet and bike examples above). Things were working, now they aren't. How do you quickly make sense of what's wrong and how to fix it?

Turnaround consultants *go and see the work*.† They walk the halls, they observe the production lines. But because they aren't experts in the particular business they're now running, the observation is not enough. They need guidance. So in trying to understand the reality of a business, turnaround artists go straight to the front lines.

"If you really want to know what's going on in an organization, you always ask the people closest to the customer and closest to the core activity, whether it's providing a service or making something," said the turnaround consultant Paul Fioravanti on a podcast.

Jeff Vogelsang, a turnaround consultant with Promontory Point Partners, seconds the approach. "I go to people and say, 'This is a private conversation. I'm not gonna share anything you say. I'm looking for common themes. I'm looking for your opinions. . . .'"

"And they'll say, 'I don't care. I'll tell you everything. They can

*Could someone start working on BODY turnaround consultants? Just call me when my six-pack is ready.

†Wait, never mind about the "body turnaround" thing . . .

fire me.’ Then they’ll puke out everything that has gone on, everything that’s wrong. I’ll write 10 pages of notes, 90% of it turns out to be accurate and 10% is emotional or a personal grudge. . . . Within two weeks, the people who work there will tell you what’s going on, if you’re good at asking open questions and shutting up and letting them ramble.”

As a methodology, this could not be simpler: To find out what’s going on in your organization, talk to the people who make it run. *Here’s what customers really think of us. Here’s why our plant is so messed up. Here’s why the software updates are always late.*

There’s no black magic. It’s just listening.

Parenthetically, when I’ve shared this idea with people, I sometimes get a polarized reaction. Some people have a cynical attitude: *Frontline people are just clock-punchers. If I ask them what’s wrong, they’re gonna say they work too hard or they don’t get paid enough.* And others have an overly romantic view: *Yes, power to the front lines! They do all the hard work and nobody listens to them! They could run the place better than the suits!*

I sometimes wonder whether either group (cynical or romantic) has actually met any frontline people. Because the truth is, they’re just people. They have smart ideas and dumb ideas. The advice is not: *Consult them because they’re wise, selfless oracles.* The advice is: *Consult them because they know their jobs better than you, and their jobs are closer to reality than yours.*

Going and seeing the work, ultimately, is about observation and consultation.

I see we turn off the corrugating machine every day. Why do we do that?

We thought we were helping students with a double-length remedial math course, but is there any proof it’s working? Or are we just doubling their suffering?

The payoff for this observational effort can be profound. Imagine if you could locate and stop the dumbest things your team is doing: the ill-advised, the pointless, the self-sabotaging—BOOM, gone. What would that be worth?

There are unmistakable areas for improvement that we may never see and brilliant ideas for change that we'll never unlock unless we *go and see the work*.

Whirlwind review: Chapter 1, Go and See the Work

1. The first way to identify Leverage Points is to observe our work more closely. As Nelson Repenning says, *"Go and see the work."*
 - a. *Assistant Principal Karen Ritter uncovered some hard truths about her school by shadowing a student.*
2. When you go and see the work, you often discover that you've been oblivious to problems, or have acclimated to them, instead of fixing them.
 - a. *The president of the paper plant discovered that the corrugating machine was being shut down every day at lunch—because of an energy problem that had been resolved years earlier.*
 - b. *Mismanagement is often the accidental accretion of outdated habits.*
3. Going and seeing the work is far preferable to the usual conference-room style of hatching improvements—what Tom Chi calls *"guess-a-thons."*
 - a. *To find real Leverage Points, you must get out of the medium of guesses and into the medium of reality.*
4. When you're trying to improve your work, you'll often discover that you have *functional* understanding rather than *systemic* understanding. Without that systemic understanding, it's hard to make things better.
 - a. *Even regular cyclists couldn't draw a bicycle accurately. That's the "illusion of explanatory depth."*
5. But it's possible to gain systemic understanding quickly. Turnaround consultants do it by going straight to the front lines.
 - a. *"The people who work there will tell you what's going on" if you shut up and let them talk.*
6. Ultimately, going and seeing the work is about getting closer to the reality of the situation and perceiving it with fresh eyes. That's how you find promising Leverage Points.

Recommendations (find live links at danheath.com/reset-links):

(Note from Dan Heath: Here's a quick explanation of these "Recommendations" sections that follow each chapter. These are not sources per se—the endnotes are at the back of the book. Rather, the Recommendations offer tips about places to explore beyond the book. Sometimes the links give extra color to the points made in the text; sometimes they're the original sources cited, when I think those sources are worth a deeper dive; sometimes they're interesting tangents. The "links" are underlined below but please know that I am not an insane person who thinks you can poke your finger at them to visit a website. The idea here is that you should visit the website danheath.com/reset-links and there you'll find this exact paragraph below, except that the links will be clickable. Happy hunting!)

In this talk, which I highly recommend, the engineer and innovator Tom Chi describes how he fights against guess-a-thons and gets his teams working in the medium of reality. To see what it's like for a principal to step into the reality of a student, watch the PBS NewsHour segment I mention in the chapter. You'll see Assistant Principal Karen Ritter run sprints, battle back-to-back sections of Algebra, and write an essay alongside her ninth-grade shadowee, Alan Garcia. If you'd like to take a deeper look at the illusion of explanatory depth research, head here for the academic article. (And to see that video of teenagers struggling to explain toilets, go here.) If you're curious about the swashbuckling world of turnaround specialists, start with James Shein's Reversing the Slide. Shein's book is both sharp and irreverent, making for an engaging read. Or, take a listen to my conversation with the turnaround consultant Jeff Vogelsang, whom I interviewed on my podcast, What It's Like to Be He's the guy quoted in this chapter saying that when you interview frontline people, they'll "puke out" everything that was relevant. For more on "going to the gembu"—the inspiration for MIT professor Nelson Repenning's "go and see the work" advice—check out The Toyota Way. It's a great summary of the Toyota Production System—much beloved by operations gurus. In this article and this talk, Repenning details how you can increase the visibility of the work you and your team are doing. This is especially important for knowledge work, Repenning points out, where feedback is naturally far less visible than in manufacturing.