

at the front of the store. This was a departure from the industry norm of departmental checkout. In most stores, including Walton's own, customers shopping for kitchen supplies would pay at the kitchen counter, and if they also needed soap, they'd pay separately at the toiletries counter.

The centralized model had several key advantages, Walton realized. It required fewer checkout clerks, which reduced payroll. It reduced the handling of cash, which minimized errors and theft. It ensured that customers would only have to pay one time.

Convinced Franklin's process was superior, Walton quickly implemented the idea in his stores, and Walmart continues to use the same model today, as do most other big-box retailers.

Throughout Walton's career, he kept his eyes out for good ideas. He once said that "most everything I've done I've copied from someone else." In the early days of discount store chains, he crisscrossed the country in search of insights, visiting discounters ranging from Spartan and Mammoth Mart in the Northeast to FedMart in California. Through conversations with one of FedMart's leaders, Walton clarified his thinking on distribution, which would eventually become a defining strength of Walmart. And he admired the merchandise mix and displays in Kmart, founded in Garden City, Michigan, by S. S. Kresge. "I'll bet I've been in more Kmart's than anybody," Walton said.

Again and again in his career, Walton found clever solutions by asking himself, "Who else is struggling with a similar problem, and what can I learn from them?"

TO BREAK OUT OF a narrow frame, we need options, and one of the most basic ways to generate new options is to *find someone else who's solved your problem*. If you're not sure how to cope with a relative who has an alcohol problem, talk to someone else who has endured a similar situation (that's why groups like Al-Anon exist). If you're unfamiliar with the grant-application process for a particular foundation, talk to someone who has previously navigated the process.

4

Find Someone Who's Solved Your Problem

1.

The massive scale of Walmart—its \$444 billion revenue in 2012 amounts to \$64 for every person on earth—inspires a complicated mixture of emotions: awe, fear, admiration, and loathing. It's easy to forget, though, that Walmart began as a pipsqueak, a small business in Bentonville, Arkansas. Though the founder of Walmart, Sam Walton, became a global Goliath, he started as a small businessman.

In 1954, years before Walmart, Walton was running a variety store in Bentonville. Walton constantly scoured other stores for good ideas. So when he got wind that some Ben Franklin variety stores in Minnesota had created a new approach to the checkout line, he resolved to see it firsthand. He hopped on a bus and made the 600-mile journey to Pipestone, Minnesota.

When he finally arrived—imagine taking a 12-hour bus ride to do a bit of industry benchmarking—he was impressed by what he discovered. In the stores, all customers were funneled through a central checkout line

Sam Walton made a habit of sniffing around his competitors' stores, looking for ideas that were better than his. Today, his style of eager competitive analysis has become conventional wisdom for most executives. They've long since learned to "benchmark" competitors and absorb industry "best practices." While these habits are useful, they are rarely transformative. Good ideas are often adopted quickly. When all retailers adopt centralized checkout as a "best practice," it's no longer a competitive advantage for anyone.

In other cases, practices that work for one organization may be incompatible with another, like an organ transplant that is rejected. (Imagine if McDonald's, inspired by movie theaters, started trying to hawk \$12 Cokes.) That's why we shouldn't forget, when hunting for new options, to look inside our own organizations. Sometimes the people who have solved our problems are our own colleagues. That's what was discovered by the leaders of Kaiser Permanente, an HMO with almost 9 million members, making it one of the largest in the country.

In early 2008, Alan Whippy (her first name is pronounced uhlANN), the medical director of quality and safety at the Permanente Medical Group in northern California, was staring at a set of data that astonished her. To continue pushing their hospitals to get better, Whippy and her team had asked the leaders of the 21 Kaiser Permanente hospitals in Northern California to do detailed case studies of the last 50 patients who had died at each of their hospitals. One problem their hospitals had addressed aggressively—heart attacks—accounted for 3.5% of the deaths. But almost 10 times as many deaths came from another cause that was barely on the radar screen at Kaiser Permanente or most of the other hospitals they knew: sepsis.

Dr. Whippy explained sepsis with an analogy: "If you have an infection on your skin, it gets inflamed—red and hot and swollen. The infection itself doesn't turn the skin red, that's the body reacting to the infection." Sepsis is a similar reaction to an infection in the bloodstream. The body's inflammatory reaction spreads to the whole body, even to

parts far away from the infection—a case of pneumonia, for instance, can trigger kidney failure or even brain damage.

What Dr. Whippy and her team realized was that physicians were paying careful attention to the infections, like pneumonia, but they weren't aggressively treating the associated sepsis, which was often the true cause of a patient's death.

Freeze there. Whippy had a problem on her hands: She needed options for improving Kaiser Permanente's treatment of sepsis. Where could she find those options?

She located one critical connection within Kaiser: Dr. Diane Craig, a physician at Kaiser Permanente Santa Clara. Craig and her colleagues had spent several years working on sepsis and had already shown some reduction in their hospital's sepsis death rate. They were frustrated that progress was not quicker, though—especially since the "recipe" for managing sepsis was known. In 2002, a provocative article had appeared in the *New England Journal of Medicine* showing that patients were substantially less likely to die from sepsis if they received quick and intensive treatment shortly after they were diagnosed.

It was easier said than done, however. As Craig knew from personal experience, the quick and intensive treatment was difficult to implement for two reasons. First, sepsis is hard to detect. A patient might look fine in the morning but plunge into crisis by lunchtime, and by then it is often more difficult to correct the cascade of internal damage. Second, the protocol recommended by the article for treating sepsis—which involves administering large quantities of antibiotics and fluids to the patient—carries its own risks.

As Craig said, "It takes a while for people to get comfortable saying, 'This patient looks good but I'm going to put a large central IV catheter in their neck and put them in the ICU and pump them full of liters and liters of fluids. And we'll do all this even though they look perfectly fine at the moment.'" The research supports this early intervention. The risks are worth it. But it was difficult for doctors, with

their “Do no harm” ethos, to move as quickly and forcefully as the research said they should.

Craig and Whippy realized that, to fight sepsis, they had to overcome these two problems by making sepsis easier to detect and by demonstrating to staff the risk of *inaction*.

With Whippy’s support, Craig and her team began to incubate new approaches to the problem at Santa Clara. One idea was simple but powerful: Whenever physicians ordered a blood culture—a sign they were worried about a blood-borne infection—a test for lactic acid was automatically added to their orders. (Lactic acid is a critical indicator of sepsis.) This allowed them to detect sepsis well before it began to influence the patient’s vital signs.

Other changes were intended to make the Santa Clara staff more aware of sepsis. Posters and pocket cards were printed up that highlighted the symptoms of sepsis. A grid on the printed materials showed the mortality risk for different patient circumstances. “People could see that this patient, right in front of me, even though they look good—they have a 20% chance of mortality. It was very powerful,” said Craig.

If the doctors and nurses spotted the symptoms of sepsis, they were asked to call a “sepsis alert,” equivalent in urgency to the “code blue” called when someone is experiencing a cardiac arrest. The sepsis alert summoned a team that could assess the patient and, if appropriate, begin the intensive sepsis protocol.

These innovative solutions began to work. Sepsis deaths began to decline. Whippy, who’d been following the work, knew that the Santa Clara team was assembling a package of cultural interventions that she could spread to other hospitals. Meanwhile, other hospitals, which had been pursuing their own solutions, added other critical pieces of the puzzle, like a “pressure bag” that fit around an IV like a balloon, ensuring that sepsis patients would receive fluids quickly enough.

Within a matter of months, under Whippy’s direction, the sepsis protocol was being actively implemented in other hospitals. By summer 2012, Kaiser Permanente Northern California, composed of 21 hospi-

tals serving 3.3 million people, had driven down risk-adjusted mortality from sepsis to 28% below the national average.

This solution has astonishing potential. If all hospitals could match Kaiser Permanente’s 28% reduction, it would be the annual equivalent, in lives saved, of saving every single man who dies from prostate cancer and every single woman who dies from breast cancer.

THE LEADERS OF KAISER make it a priority to study their own internal “bright spots”—the most positive points in a distribution of data.* For the treatment of sepsis, for instance, Dr. Craig’s team represented a bright spot, because of its lower death rate.

Bright spots can be much more mundane, though. If you’re trying to stick to a new exercise regimen, then your bright spots might be the four times last month that you made it to the gym. If you take the time to study and understand your bright spots—how exactly did you manage to get yourself to the gym on those four days?—then you can often discover unexpected solutions. Maybe you’d notice that three of the four occasions were during lunch, which tends to be the least complicated time for you. So you might make a point to avoid scheduling things at lunchtime, keeping that time free for future workouts.

The wonderful thing about bright spots is that they *can’t* suffer from the rejected-transplant problem, because they’re native to your situation. It’s your own success you’re seeking to reproduce.

Both bright spots and best practices, then, act as sources of inspiration. If you’ve got a dilemma and you need new options, you can look for new ideas externally, like Sam Walton, or internally, like Kaiser’s leaders. Notice that in both situations the process is reactive: Your dilemma sparks the search. But there’s a lot to be gained by taking the results of

*“Bright spots” is a term that we defined in *Switch*, which discusses how to spark change. It was a more central concept in that book—if you’d like to learn more, check out a free excerpt about bright spots at <http://www.fastcompany.com/1514493/switch-dont-solve-problems-copy-success>.

your search and recording them for future use—to turn a reactive search into a proactive set of guidelines.

To see what we mean, imagine a manager who has a talented and ambitious employee, one who's eager to advance and earn more responsibility. Unfortunately, there's no obvious way the manager can honor the employee's ambition—no clear promotion path, no easy way to boost compensation. How do you avoid dampening the person's enthusiasm or, worse, losing them altogether?

The search for options might lead the manager to search first for best practices. In a world with thousands of other organizations, someone has surely faced this problem before. Next, she might look for bright spots within her own organization, interviewing a couple of longtime managers to fish for their insights.

What if she took things a step further and actually encoded what she learned so that the next manager in a similar situation—whether a month or a year down the line—could consult her ready-made list of suggestions? Her list might include thoughts like these: *Is there a way you can delegate some of your own higher-level work to the employee? Can you carve out a project that they can lead? Try to find ways to ensure that the employee is recognized publicly for their work.*

By encoding the advice, she'd be creating a kind of "playlist" of managerial greatest hits: questions to ask, principles to consult, ideas to consider.

This playlist idea turns a reactive search—*Who has solved my problem?*—into a proactive step: *We've already found the people who have solved this problem, and here's what they said.*

Dion Hughes and Mark Johnson have used this playlist technique, to considerable success, in the advertising industry. They founded a firm, Persuasion Arts & Sciences, that acts as a relief pitcher for advertising agencies that have hit a creative roadblock. Hughes and Johnson often come in at the last minute to offer fresh ideas just before an important pitch.

Both men had worked previously in top-tier ad agencies. Johnson

had been part of the team that developed the "ultimate driving machine" positioning for BMW, and Hughes had won awards for the "how to speak Australian" campaign for Foster's beer. (Sample billboard: A picture of a dagger is captioned, "Australian for dental floss." Next to it, a bottle of Foster's is captioned, "Australian for beer.")

Dion Hughes said, "We knew that creative people tend to be precocious about their ideas and find the ones that they're passionate about and then invest a lot of emotion into them. And they spend most of their time diving deep into one or two ideas and not a lot of time spreading their wings. So we thought, well, why don't we do the opposite?" So when Hughes and Johnson are called in by creative directors, they try to send them a dozen possible directions within a week. (Notice the multi-tracking.)

To generate that volume of ideas, they come back to the same playlist of questions again and again. For example, they might ask, *What kind of iconography within the brand is useful and what could we build around it?* For a UPS project it might be the shield logo or the classic brown UPS driver uniform or the familiar, boxy shape of the delivery truck. Other questions in the playlist include:

- Is there a key color for the brand?
- What is the enemy of this product?
- What would the brand be like if it was the market share leader?
- What if it was an upstart?
- Can you personify the product?

In 2008, Persuasion Arts & Sciences was approached by a small mom-and-pop brand, Diana's Bananas, which sold only one product: frozen chocolate-covered bananas. Diana's had been founded by a Chicago woman who had subsequently passed away, leaving her husband with, as Hughes said, "a tiny little company and a tiny little factory with one shift of workers."

Hughes and Johnson, moved by the story, agreed to do a small project for Diana's. The owner had \$80,000 to spend, and they had to gently tell him that his budget wouldn't support a major TV ad campaign. In brainstorming campaign ideas, the duo knew they needed to overcome two problems: First, few shoppers came to the grocery store with "frozen bananas" on their grocery lists, and, worse, impulse buys were unlikely, since Diana's lacked the budget to pay for good placement in the freezers. The packages tended to be stranded on one of the bottom shelves.

These problems got them thinking: *These bananas are mostly for kids, and we could count on them to beg their parents to buy them, but the kids don't know the product exists. So we've got to lead them to the right place. But how?*

As they worked through the playlist, they paused on one question: *What kind of iconography within the brand is useful and what could we build around it?* One character on the packaging was a baby monkey in diapers. They started thinking about the monkey and the bananas, and they thought, *Hmm, what if the monkey were eating bananas and leaving the peels behind, like a bread-crumbs trail?*

Excited by the idea, they designed a series of decals—bright yellow banana peels—that could be stuck to the floor of the grocery store, creating a trail that led right to the freezer where Diana's was stocked. Kids immediately caught on to the game, following the trail like a treasure hunt.

After the trails had been installed in a chain of grocery stores, Hughes and Johnson called to see how the campaign was doing. The owner said, "We have had to put on a second and third shift to keep up with demand." The trail of banana peels had worked like a charm.

Hughes and Johnson's biggest success to date was for a client that they aren't allowed to name, a *Fortune* 100 company that had put its ad agency on notice. The agency was told that if it didn't come up with fresher material, the nine-figure account would be moving elsewhere. So the agency, in a panic, summoned a group of around 40 creatives to an airport hotel outside a major industrial city. Hughes and Johnson joined

the group, which was sequestered in secrecy, like the jury on a high-profile murder case. Even the locals from the ad agency weren't allowed to go home during the days of the briefing.

"We are looking around the room," said Hughes, "thinking, 'There are a lot of talented people in this room. How can we win?'" Knowing that the other agencies would take a few days to generate one or two carefully curated ideas, Hughes and Johnson went back to their playlist of questions. They thought they could win with speed and quantity.

They resolved to meet with the creative director the very next morning. "We won't have any TV commercials to view or print ads to give out," Hughes said. "We will just say, 'Here are the big fat areas for this brief to go in.' We will put an idea on each of those squares so that we own that square. So that when finally his other creative teams come to him a week later, he'll look at their work and go, 'Sorry, I already got something like that from Dion and Mark.'"

The plan succeeded. In the end, the ad agency presented six "finalist" ideas to the client. Four of the six were created by Hughes and Johnson, as was the eventual winner. The playlist had triumphed.

THERE'S A BRUTE-FORCE ASPECT to the strategy used by Hughes and Johnson. They force themselves to consider prescribed questions, one at a time, to generate new options. A "canned" list of stimuli seems to spark fresh insights. What's particularly surprising is that this brute-force approach can work in advertising, a domain that prizes creativity and novelty. If a playlist can work for advertisers, chances are it can work for you.

Could you create your own playlist to help your colleagues discover options? Think about some of the common types of decisions that have been made historically in your organization. For example, one unpleasant but common type of decision is how to make budget cuts. What if the wisest minds in your organization had come up with a list of ready-made questions and issues that could help direct the budget cutter?

- Is it possible the budget can be cut by delaying planned expenditures rather than by paring existing expenditures?
- Have you exhausted other potential sources of income that might relieve the need for cutting?
- Resist the urge to cut everything by a fixed amount. Think about ways to be more strategic with cuts.
- Could you cut deeper than you need to in order to free up funds to invest in exciting new opportunities?

As with the Hughes and Johnson playlist, this would allow a manager to sort quickly through potential options. Let's say a county government official is struggling with the need to cut her library budget by 10%. Initially, the official might have considered two options: cutting hours by 10% across the board or closing one library branch entirely. The playlist helps her see a broader spectrum:

- *Is it possible the budget can be cut by delaying planned expenditures rather than by paring existing expenditures? I can delay a few IT hires. That will help a little but not a lot.*
- *Have you exhausted other potential sources of income that might relieve the need for cutting? Not much promise here—we certainly can't raise taxes in this climate. We can try to attract corporate sponsors, but those efforts wouldn't pay off until next year.*
- *Resist the urge to cut everything by a fixed amount. Think about ways to be more strategic with cuts. It might be wise to be strategic about the hours we restrict. For instance, with the library near the college, we could leave the evening hours intact but move the opening time later. In the neighborhood that's full of retirees, we could open at the same time but close earlier.*
- *Could you cut deeper than you need to in order to free up funds to invest in exciting new opportunities? This might make a lot of sense. If*

we closed our least utilized branch *and* cut back hours, that would free up \$2 million that we could invest in our online tools, which would allow everyone in the community to benefit 24-7.

Virtually every organization would benefit from decision aids like this. (What's the downside?) Playlists should be as useful as checklists, yet your organization has many checklists and probably zero playlists. A checklist is useful for situations where you need to replicate the same behaviors every time. It's prescriptive; it stops people from making an error. On the other hand, a playlist is useful for situations where you need a stimulus, a way of producing new ideas. It's generative; it stops people from overlooking an option. (*Don't forget to shine your spotlight over here . . .*)

Playlists also spur us to multitrack. In the last chapter, we discussed the value of shifting between the prevention and promotion mindsets. A playlist can force us to make that shift. Note that in the budget-cutting example above, the last sentence is an explicit prod to shift to the promotion mindset: "Could you . . . free up funds to invest in exciting new opportunities?" That's a useful stimulus, because most decision makers struggling with budget cuts are likely to be trapped in the prevention mindset (concerned with preventing harm).

Of course, playlists are no panacea. You'll never have a playlist for any decision that is novel, for instance, and given the relentless pace of change, those decisions will be all too frequent. So what if you have a choice to make where there's no playlist to review, no best practices to consult, and no bright spots to study?

Simply put, what if you get stuck?

2.

Kevin Dunbar set out to understand how scientists think. How do they solve problems? Where do their breakthroughs come from? His interest in scientific thinking was a neat fusion of his own work in science (five

years as an undergraduate in molecular biology) and thinking (as a professor of psychology).

Dunbar quickly realized that the tools of psychology were poorly suited to studying the novel problem solving that characterizes real-world science. In a typical psychology experiment, undergraduate students—the lab rats of psychology—might be asked to spend 10 minutes working on a problem generic enough to be cracked by a 20-year-old with no technical expertise. By contrast, science unfolds in months and years rather than minutes, and scientists possess deep knowledge of their domains. Surely, thought Dunbar, creating quick tests for undergraduates wasn't the way to study the minds of scientists.

So, like a war reporter embedding himself with an army unit, Dunbar spent a year alongside the scientists in four leading molecular-biology laboratories, watching and recording their work. The focus of his observations was the research meeting, a gathering common to the four labs, usually held weekly, in which one of the lab's doctoral or postdoctoral students would talk about an ongoing project.

What Dunbar discovered, after countless hours of eavesdropping and interviewing and synthesizing, was that one of the reliable but unrecognized pillars of scientific thinking is the analogy.

When the scientists ran into problems with their experiments, a common day-to-day experience, they would often benefit from a "local analogy": a comparison to a very similar experiment with a similar organism. So if one scientist was bemoaning a failed experiment with the phage virus, a colleague might share an example of how he tweaked an experiment to overcome a similar problem. "This type of reasoning occurred in virtually every meeting I observed, and often numerous times in a meeting," said Dunbar.

Other times, the scientists were struggling with a bigger problem—not just one experiment that didn't work but perhaps a whole series of experiments that were producing consistent but unpredicted results. In those discussions, Dunbar found, the scientists often switched from local analogies to what he called "regional analogies." These typically involved

another organism that had a family relationship with the organism being studied. A scientist trying to understand how a new virus replicates, for instance, might work through an analogy from a better-known virus such as smallpox.

Dunbar said, "The use of analogies is one of the main mechanisms for driving research forward." And the key to using analogies successfully, he said, was the ability to extract the "crucial features of the current problem." This required the scientist to think of the problem from a more abstract, general perspective, and then "search for other problems that have been solved." (*Find someone who has solved your problem.*)

Interestingly, the scientists were often unaware of the prominent role analogies played in their problem solving. When Dunbar interviewed them a few days after a particular lab meeting, they could recall the conclusion they'd reached but not the chain of analogies that had helped them get there. (Dunbar has since written articles encouraging science educators to teach new scientists how to tap the power of analogies more explicitly.)

One surprise in Dunbar's study was that while three of the labs made consistent use of analogies, the fourth never did. He explains the consequences:

In the laboratory that did not make analogies, the scientists used a different strategy when they encountered problems in their research; they manipulated experimental variables such as raising the temperature, varying chemical concentrations, and so forth, to make things work. Thus, a problem that could have been solved by making an analogy to another similar experiment (local analogy) or to another organism (regional analogy) was not made, leaving some problems unsolved, either temporarily or over the long term.

Indeed, very similar research problems were encountered in the other laboratories, but they were solved much faster through the use of local and regional analogies.

Notice the slow, brute-force approach that had to be used by the lab that didn't use analogies. When you use analogies—when you find someone who has solved your problem—you can take your pick from the world's buffet of solutions. But when you don't bother to look, you've got to cook up the answer yourself. Every time. That may be possible, but it's not wise, and it certainly ain't speedy.

DUNBAR FOUND THAT GRANULAR problems benefit from local analogies, and conceptual problems lend themselves to regional analogies. In fact, the more you are able to extract the "crucial features" of a problem, the further afield you can go. A separate study of a medical-plastics design group, conducted by Bo T. Christensen and Christian D. Schunn, found that the designers tapped a veritable circus of analogies, including zippers, credit cards, toilet paper, shoes, milk containers, Christmas decorations, waterwheels, picture puzzles, venetian blinds, and lingerie.

What we're seeing here is that, when you're stuck, you can use a process of "laddering up" to get inspiration. The lower rungs on the ladder offer a view of situations very similar to yours; any visible solutions will offer a high probability of success, since the conditions are so similar. As you scale the ladder, you'll see more and more options from other domains, but those options will require leaps of imagination. They'll offer the promise of an unexpected breakthrough—but also a high probability of failure. When you start looking for cross-fertilization between the medical-plastics domain and the world of lingerie, you're likely to find yourself at a lot of dead ends (or perhaps with a very hard and uncomfortable bra).

For an example of laddering up, let's imagine a junior-high principal, Mr. Jones, who wants to speed up the lunch line in the school cafeteria. He figures if students spend less time waiting in line, they'll have more time to go outside and get some activity before afternoon classes begin.

Given this goal, where can Jones look for options? The first answer, we know now, is that he should look locally. Are there bright spots in his own staff? Maybe one checkout line always seems to move faster than the others; Jones could study how that checkout clerk handles the process. (Perhaps, like the collectors at tollbooths, she counts out common configurations of change in advance.) Jones could spread her approach to the remaining cashiers.

If there are no obvious bright spots, he can ladder up a couple of rungs and benchmark the practices of other schools in his city. If he strikes out again, he could keep laddering up. The next step might be to expand his search to *any* organization with a checkout process, from convenience stores to community pools. (These rungs of the ladder are akin to a scientist's use of a "regional analogy"—learning from another organism that is similar to the one being studied.)

As he climbed, he would broaden the definition of the problem. Instead of looking for people who have pioneered creative checkout solutions, he might hunt down people who excel at managing the flow of crowds: managers of sports stadiums, amusement parks, or shopping malls. (Could you learn something from Disney's roller-coaster queues, for instance, that might be useful in a crowded lunchroom?)

Up and up Principal Jones could climb—with another rung he might seek inspiration from people with expertise in managing the flow of a resource through a fixed space, such as plumbers, electricians, and factory owners. You can see how, as you grow more and more abstract, you eventually ascend past the zone of creativity and into the realm of absurdity. (If you ever find yourself seeking inspiration from other galaxies, ladder back down and have a cup of coffee.)

Lexicon, the naming firm discussed in the previous chapter, excels at this process. In naming the processor that became the Pentium, the creative team wanted names that suggested "speed," so they laddered up past the domain of computer technology to consider any fast, high-performance product. One team, in fact, spent time studying the names

of slalom race skis. (In the end, another analogy would prevail: the notion that the processor was a powerful “ingredient,” an essential element of the computer. Note the “-ium” ending, which is familiar from the inhabitants of the Periodic Table of Elements.)

TO SEE HOW LADDERING up can generate a truly novel option, consider the story of Fiona Fairhurst, a designer hired in 1997 by Speedo. She was given a crystal-clear mission: to design a swimsuit that would make swimmers faster.

Traditionally, swimsuits had evolved to become smoother, tighter, and skimpier, but Speedo had grown interested in new design approaches. Fairhurst, a swimmer herself, was unimpressed with Speedo’s early designs, so she began to seek out other sources of inspiration. “This is how my brain works,” she told Dick Gordon in a June 2012 interview. “If I’m going to make something that goes fast, I tend to look at everything that goes fast and the mechanisms that make things go fast. So I started looking at man-made objects like boats, torpedoes, space shuttles, everything.”

Fairhurst was laddering up. She’d redefined the problem from “a swimsuit that goes fast” to “anything that goes fast, especially in the water.” And that got her interested in animals that seemed to move faster in water than they ought to. Shortly thereafter, she had a fateful day at the Natural History Museum in London:

It was one of those “eureka moments.” . . . [The guide from the museum] took me to the back rooms of the Natural History Museum. . . . It’s not where the public is allowed. And he had this huge metal tank, and he lifted it open, and inside was a nine-foot shark. And he said to me, “Fiona, you need to touch his nose, touch his belly.” . . . I was thinking, “What the heck am I doing?”

As I touched the nose, it was exceedingly rough, almost sharp. It’s made of this material like enamel, like our teeth. It’s called dermal denticle. . . . If you run your hand from nose to tail, it’s smooth, but a bit like any fish scale; if you run your hand backward, it’s sharp and it will cut your hand.

They sent a sample of the shark’s skin to a lab, which returned images of its rough and microgrooved texture. The images sparked an insight for Fairhurst: “For years many people thought smooth fabric was the key [to speed], but if you look at sharkskin and how rough it is, *roughness* is the actual key to making a fast fabric.” (Indeed, one Harvard scientist has conducted experiments showing that the shark’s rough denticles reduce drag and increase thrust.) Inspired, Fairhurst and her colleagues reduced over a thousand different fabrics until they found one whose texture convincingly mimicked sharkskin.

Another, perhaps more important, change they made to the new swimsuit was inspired by an analogy to a man-made object, the naval torpedo. Unlike skimpy traditional suits, Fairhurst’s swimsuit covered much of the body, like a second skin. It was tight and restricting, which struck some athletes as uncomfortable at first, but Fairhurst said the effects were profound: “By compressing all your lumps and bumps, you can make a more torpedo-like shape through the water.”

The Speedo team began to test the new suit with Olympic athletes. In one test leading up to the 2000 games in Sydney, Fairhurst worked with Jenny Thompson, an American swimmer who’d already won medals in the 1992 and 1996 games. As Thompson’s coach timed her, she swam 50 meters, once with her own suit and once with Fairhurst’s new creation.

As Fairhurst recalled, when Thompson emerged from the pool, she said, “I hate this suit; it feels horrible.” Meanwhile, her coach, staring at the timer, was incredulous. Thompson’s time with the suit had been close to her world-record pace, even though she had started her swim by

merely pushing off the wall with her feet rather than by diving in at full speed. He told her, "A world record isn't easy . . . so don't rule out the suit!"

In test after test, the new suit, which came to be called the Fastskin, consistently outperformed its predecessors. Next came a regulatory hurdle: For the suit to be used by swimmers in the Olympics, it had to be approved by the Fédération Internationale de Natation (FINA), the international governing body for the sport of swimming. Fairhurst was surprised when FINA officials objected to the suit on aesthetic grounds. "One of the things that they felt gave them very good TV coverage was the fact that it was beautiful people in swimsuits . . . a bit like the *Baywatch* mentality." FINA's leaders were worried that her suit was hiding too much flesh!

To her relief, FINA overcame these anxieties and approved the suit, and the Fastskin debuted at the 2000 Sydney Olympics. Its impact was immediate and dramatic: An astonishing 83% of swimming medals were won by swimmers who wore it.

The very success of the Fastskin inspired controversy. Critics, including some Olympic swimmers, questioned whether the suits were giving athletes an unfair advantage.

Later evolutions of Fairhurst's original swimsuit—the successors to Fastskin—kept boosting swimmers' performance, until finally FINA balked, banning certain fabrics and styles beginning in 2010.

Fairhurst's laddering had produced a competitive advantage so strong that it had to be banned to keep the playing field level.

IN THIS SECTION, WE'VE been looking for ways to evade a narrow frame, the tendency to unduly restrict our own options. It's not just teenagers and business executives who fall into this trap; it's all of us.

In interviews we conducted for this book, we had conversations with three people who were facing similar dilemmas. Two were wondering whether to quit their jobs, and the third was wondering whether to quit

her relationship. All three of them, asked to state their options, saw only a binary choice: *I'm trying to decide whether or not I should leave.* (Here's hoping the "whether or not" phrase made you roll up your decision-adviser sleeves.)

Incredibly, none of these people were considering the obvious third option: to try to change their situation! *Couldn't you talk to your boss about a different set of duties? Couldn't you talk to your partner about ways to improve your relationship?* Two of the three, when pressed about this, had a head-slapping "duh" moment. (The third felt his dilemma was discussion proof.) These were smart people who were trapped in a kind of cognitive bubble.

Yet what makes narrow framing remarkable, among the four villains of decision making, is how easy it is to correct. The lightest prick often bursts the bubble. We've encountered a handful of techniques for doing just that—for Widening Our Options. One of them was the Vanishing Options Test: *What if you couldn't do any of the things you're considering—what else might you try? What if you were forced to invest your time or money in something else—what would be the next-best pick?*

We also saw that multitracking—thinking "AND not OR"—is a powerful way to compare options and that we can create more "balanced" options by toggling between the prevention and promotion mindsets.

Finally, if we get stuck, we should find someone who has already solved our problem. To find them, we can look inside (for bright spots), outside (for competitors and best practices), and into the distance (via laddering up).

When we Widen Our Options, we give ourselves the luxury of a real choice among distinct alternatives. Often the right choice won't be obvious at first glance, though we may have a hint of a preference. So, to inform our decision, we'll need to gather more information. But we've already encountered the villain that tends to thwart these efforts: the confirmation bias, which tempts us to collect only the information that supports our gut-level preference.

Unlike narrow framing, the confirmation bias is not easily dis-

rupted. Even the smartest psychologists, who have studied the bins for years, admit that they can't shake it. It can't be wiped out; it can only be reined in. To see how we can hold our own against this tenacious foe, continue on to the next chapter, and get ready to Reality-Test Your Assumptions.

CHAPTER FOUR IN ONE PAGE Find Someone Who's Solved Your Problem

1. When you need more options but feel stuck, look for someone who's solved your problem.
 - *Sam Walton discovered an ingenious checkout solution by scoping out another store.*
2. Look outside: competitive analysis, benchmarking, best practices.
 - *Kaiser's leaders found and scaled a solution for sepsis pioneered by one of Kaiser's own hospitals.*
 - *What can you learn from your own bright spots (e.g., the four days you went to the gym last month)?*
3. Look inside. Find your bright spots.
 - *A checklist stops people from making an error; a playlist stimulates new ideas.*
 - *Advertisers Hughes and Johnson use a playlist to spark lots of creative ideas quickly.*
 - *A playlist for budget cuts might include a prompt to switch between the prevention and promotion mindsets: Can you cut more here to invest more there?*
4. Note: To be proactive, encode your greatest hits in a decision "playlist."
 - *Kevin Dunbar: Analogies are a pillar of scientific problem solving. Scientists make progress through analogies to similar experiments and similar organisms.*
 - *Ladder up: Lower rungs show close analogies (low risk and low novelty), while higher rungs reveal more distant solutions (higher risk and higher novelty).*
 - *Fiona Fairhurst designed a speedier swimsuit by laddering up and analyzing "anything that moves fast," including sharks and torpedoes.*
5. A third place to look for ideas: in the distance. Ladder up via analogies.
 - *Why generate your own ideas when you can sample the world's buffet of options?*