Rule #1

Work Deeply

Soon after I met David Dewane for a drink at a Dupont Circle bar, he brought up the Eudaimonia Machine. Dewane is an architecture professor, and therefore likes to explore the intersection between the conceptual and the concrete. The Eudaimonia Machine is a good example of this intersection. The machine, which

takes its name from the ancient Greek concept of *eudaimonia* (a state in which you're achieving your full human potential), turns out to be a building. "The goal of the machine," David explained, "is to create a setting where the users can get into a state of deep human flourishing—creating work that's at the absolute extent of their personal abilities." It is, in other words, a space designed for the sole purpose of enabling the deepest possible deep work. I was, as you might expect, intrigued.

As Dewane explained the machine to me, he grabbed a pen to sketch its proposed layout. The structure is a one-

story narrow rectangle made up of five rooms, placed in a line, one after another. There's no shared hallway: you have to pass through one room to get to the next. As Dewane explains, "[The lack of circulation] is critical because it doesn't allow you to bypass any of the spaces as you get deeper into the machine."

The first room you enter when coming off the street is called the gallery. In Dewane's plan, this room would contain examples of deep work produced in the building. It's meant to inspire users of the machine, creating a "culture of healthy stress and peer pressure."

As you leave the gallery, you next enter the salon. In here, Dewane imagines access to high-quality coffee and perhaps even a full bar. There are also couches and Wi-Fi. The salon is designed to create a mood that "hovers between intense curiosity and argumentation." This is a place to debate, "brood," and in general work through the ideas that you'll develop deeper in the machine.

Beyond the salon you enter the library. This room stores a permanent record of all work produced in the machine, as well as the books and other resources used in this previous work. There will be copiers and scanners for

gathering and collecting the information you need for your project. Dewane describes the library as "the hard drive of the machine."

The next room is the office space. It contains a standard conference room with a whiteboard and some cubicles with desks. "The office," Dewane explains, "is for low-intensity activity." To use our terminology, this is the space to complete the shallow efforts required by your project. Dewane imagines an administrator with a desk in the office who could help its users improve their work habits to optimize their efficiency.

This brings us to the final room of the machine, a collection of what Dewane

calls "deep work chambers" (he adopted the term "deep work" from my articles on the topic). Each chamber is conceived to be six by ten feet and protected by thick soundproof walls (Dewane's plans call for eighteen inches of insulation). "The purpose of the deep work chamber is to allow for total focus and uninterrupted work flow," Dewane explains. He imagines a process in which you spend ninety minutes inside, take a ninety-minute break, and repeat two or three times—at which point your brain will have achieved its limit of concentration for the day.

For now, the Eudaimonia Machine exists only as a collection of

architectural drawings, but even as a plan, its potential to support impactful work excites Dewane. "[This design] remains, in my mind, the most interesting piece of architecture I've ever produced," he told me.

In an ideal world—one in which the true value of deep work is accepted and celebrated—we'd all have access to something like the Eudaimonia Machine. Perhaps not David Dewane's exact design, but, more generally speaking, a work environment (and culture) designed to help us extract as much value as possible from our brains. Unfortunately, this vision is far from our

current reality. We instead find ourselves in distracting open offices where inboxes cannot be neglected and meetings are incessant—a setting where colleagues would rather you respond quickly to their latest e-mail than produce the best possible results. As a reader of this book, in other words, you're a disciple of depth in a shallow world.

This rule—the first of four such rules in Part 2 of this book—is designed to reduce this conflict. You might not have access to your own Eudaimonia Machine, but the strategies that follow will help you simulate its effects in your otherwise distracted professional life.

They'll show you how to transform deep work from an aspiration into a regular and significant part of your daily schedule. (Rules #2 through #4 will then help you get the most out of this deep work habit by presenting, among other things, strategies for training your concentration ability and fighting back encroaching distractions.)

Before proceeding to these strategies, however, I want to first address a question that might be nagging you: Why do we need such involved interventions? Put another way, once you accept that deep work is valuable, isn't it enough to just start doing more of it? Do we really need something as

complicated as the Eudaimonia Machine (or its equivalent) for something as simple as remembering to concentrate more often?

Unfortunately, when it comes to replacing distraction with focus, matters are not so simple. To understand why this is true let's take a closer look at one of the main obstacles to going deep: the urge to turn your attention toward something more superficial. Most people recognize that this urge can complicate efforts to concentrate on hard things, but most underestimate its regularity and strength.

Consider a 2012 study, led by psychologists Wilhelm Hofmann and

Roy Baumeister, that outfitted 205 adults with beepers that activated at randomly selected times (this is the experience sampling method discussed in Part 1). When the beeper sounded, the subject was asked to pause for a moment to reflect on desires that he or she was currently feeling or had felt in the last thirty minutes, and then answer a set of questions about these desires. After a week, the researchers had gathered more than 7,500 samples. Here's the short version of what they found: *People fight desires all day long*. As Baumeister summarized in his subsequent book, *Willpower* (co-authored with the science writer John Tierney): "Desire turned out

to be the norm, not the exception."

The five most common desires these subjects fought include, not surprisingly, eating, sleeping, and sex. But the top five list also included desires for "taking a break from [hard] work... checking e-mail and social networking sites, surfing the web, listening to music, or watching television." The lure of the Internet and television proved especially strong: The subjects succeeded in resisting these particularly addictive distractions only around half the time.

These results are bad news for this rule's goal of helping you cultivate a deep work habit. They tell us that you can expect to be bombarded with the

desire to do anything *but* work deeply throughout the day, and if you're like the German subjects from the Hofmann and Baumeister study, these competing desires will often win out. You might respond at this point that *you* will succeed where these subjects failed because you understand the importance of depth and will therefore be more rigorous in your will to remain concentrated. This is a noble sentiment, but the decades of research that preceded this study underscore its futility. A now voluminous line of inquiry, initiated in a series of pioneering papers also written by Roy Baumeister, has established the

following important (and at the time, unexpected) truth about willpower: *You have a finite amount of willpower that becomes depleted as you use it.*

Your will, in other words, is not a manifestation of your character that you can deploy without limit; it's instead like a muscle that tires. This is why the subjects in the Hofmann and Baumeister study had such a hard time fighting desires—over time these distractions drained their finite pool of willpower until they could no longer resist. The same will happen to you, regardless of your intentions—unless, that is, you're smart about your habits.

This brings me to the motivating idea

behind the strategies that follow: The key to developing a deep work habit is to move beyond good intentions and add *routines* and *rituals* to your working life designed to minimize the amount of your limited willpower necessary to transition into and maintain a state of unbroken concentration. If you suddenly decide, for example, in the middle of a distracted afternoon spent Web browsing, to switch your attention to a cognitively demanding task, you'll draw heavily from your finite willpower to wrest your attention away from the online shininess. Such attempts will therefore frequently fail. On the other hand, if you deployed smart routines and

rituals—perhaps a set time and quiet location used for your deep tasks each afternoon—you'd require much less willpower to start and keep going. In the long run, you'd therefore succeed with these deep efforts far more often.

With this in mind, the six strategies that follow can be understood as an arsenal of routines and rituals designed with the science of limited willpower in mind to maximize the amount of deep work you consistently accomplish in your schedule. Among other things, they'll ask you to commit to a particular pattern for scheduling this work and develop rituals to sharpen your concentration before starting each

session. Some of these strategies will deploy simple heuristics to hijack your brain's motivation center while others are designed to recharge your willpower reserves at the fastest possible rate.

You could just try to make deep work a priority. But supporting this decision with the strategies that follow—or strategies of your own devising that are motivated by the same principles—will significantly increase the probability that you succeed in making deep work a crucial part of your professional life.

Decide on Your Depth Philosophy

The famed computer scientist Donald Knuth cares about deep work. As he explains on his website: "What I do takes long hours of studying and uninterruptible concentration." A doctoral candidate named Brian Chappell, who is a father with a full-time job, also values deep work, as it's the only way he can make progress on his dissertation given his limited time. Chappell told me that his first encounter with the idea of deep work was "an emotional moment."

I mention these examples because although Knuth and Chappell agree on the importance of depth, they disagree on their *philosophies* for integrating this

depth into their work lives. As I'll detail in the next section, Knuth deploys a form of monasticism that prioritizes deep work by trying to eliminate or minimize all other types of work. Chappell, by contrast, deploys a rhythmic strategy in which he works for the same hours (five to seven thirty a.m.) every weekday morning, without exception, before beginning a workday punctuated by standard distractions. Both approaches work, but not universally. Knuth's approach might make sense for someone whose primary professional obligation is to think big thoughts, but if Chappell adopted a similar rejection of all things shallow, he'd likely lose his job.

You need your own philosophy for integrating deep work into your professional life. (As argued in this rule's introduction, attempting to schedule deep work in an ad hoc fashion is not an effective way to manage your limited willpower.) But this example highlights a general warning about this selection: You must be careful to choose a philosophy that fits your specific circumstances, as a mismatch here can derail your deep work habit before it has a chance to solidify. This strategy will help you avoid this fate by presenting four different depth philosophies that I've seen work exceptionally well in practice. The goal is to convince you

that there are many different ways to integrate deep work into your schedule, and it's therefore worth taking the time to find an approach that makes sense for you.

The Monastic Philosophy of Deep Work Scheduling

Let's return to Donald Knuth. He's famous for many innovations in computer science, including, notably, the development of a rigorous approach to analyzing algorithm performance. Among his peers, however, Knuth also maintains an aura of infamy for his

approach to electronic communication. If you visit Knuth's website at Stanford with the intention of finding his e-mail address, you'll instead discover the following note:

> *I have been a happy man ever since January 1, 1990, when I no longer had an email address. I'd used email since about 1975, and it seems to me that 15 years of email is plenty for one lifetime. Email is a wonderful thing for people whose role in life is to be on top of things. But not for me; my role is to be on the bottom of things. What I do*

takes long hours of studying and uninterruptible concentration.

Knuth goes on to acknowledge that he doesn't intend to cut himself off completely from the world. He notes that writing his books requires communication with thousands of people and that he wants to be responsive to questions and comments. His solution? He provides an address—a *postal mailing* address. He says that his administrative assistant will sort through any letters arriving at that address and put aside those that she thinks are relevant. Anything that's truly urgent she'll bring to Knuth promptly, and

everything else he'll handle in a big batch, once every three months or so.

Knuth deploys what I call the *monastic philosophy* of deep work scheduling. This philosophy attempts to maximize deep efforts by eliminating or radically minimizing shallow obligations. Practitioners of the monastic philosophy tend to have a well-defined and highly valued professional goal that they're pursuing, and the bulk of their professional success comes from doing this one thing exceptionally well. It's this clarity that helps them eliminate the thicket of shallow concerns that tend to trip up those whose value proposition in the working world is more varied.

Knuth, for example, explains his professional goal as follows: "I try to learn certain areas of computer science exhaustively; then I try to digest that knowledge into a form that is accessible to people who don't have time for such study." Trying to pitch Knuth on the intangible returns of building an audience on Twitter, or the unexpected opportunities that might come through a more liberal use of e-mail, will fail, as these behaviors don't directly aid his goal to exhaustively understand specific corners of computer science and then write about them in an accessible manner.

Another person committed to

monastic deep work is the acclaimed science fiction writer Neal Stephenson. If you visit Stephenson's author website, you'll notice a lack of e-mail or mailing address. We can gain insight into this omission from a pair of essays that Stephenson posted on his early website (hosted on The Well) back in the early 2000s, and which have been preserved by the Internet Archive. In one such essay, archived in 2003, Stephenson summarizes his communication policy as follows:

> *Persons who wish to interfere with my concentration are politely requested not to do so,*

and warned that I don't answer e-mail... lest [my communication policy's] key message get lost in the verbiage, I will put it here succinctly: All of my time and attention are spoken for—several times over. Please do not ask for them.

To further justify this policy, Stephenson wrote an essay titled "Why I Am a Bad Correspondent." At the core of his explanation for his inaccessibility is the following decision:

The productivity equation is a non-linear one, in other words.

This accounts for why I am a bad correspondent and why I very rarely accept speaking engagements. If I organize my life in such a way that I get lots of long, consecutive, uninterrupted time-chunks, I can write novels. But as those chunks get separated and fragmented, my productivity as a novelist drops spectacularly.

Stephenson sees two mutually exclusive options: He can write good novels at a regular rate, or he can answer a lot of individual e-mails and attend conferences, and as a result

produce lower-quality novels at a slower rate. He chose the former option, and this choice requires him to avoid as much as possible any source of shallow work in his professional life. (This issue is so important to Stephenson that he went on to explore its implications—positive and negative—in his 2008 science fiction epic, *Anathem*, which considers a world where an intellectual elite live in monastic orders, isolated from the distracted masses and technology, thinking deep thoughts.)

In my experience, the monastic philosophy makes many knowledge workers defensive. The clarity with which its adherents identify their value

to the world, I suspect, touches a raw nerve for those whose contribution to the information economy is more complex. Notice, of course, that "more complex" does not mean "lesser." A high-level manager, for example, might play a vital role in the functioning of a billion-dollar company, even if she cannot point to something discrete, like a completed novel, and say, "This is what I produced this year." Therefore, the pool of individuals to whom the monastic philosophy applies is limited—and that's okay. If you're outside this pool, its radical simplicity shouldn't evince too much envy. On the other hand, if you're inside this pool—someone whose

contribution to the world is discrete, clear, and individualized[*]—then you should give this philosophy serious consideration, as it might be the deciding factor between an average career and one that will be remembered.

The Bimodal Philosophy of Deep Work Scheduling

This book opened with a story about the revolutionary psychologist and thinker Carl Jung. In the 1920s, at the same time that Jung was attempting to break away from the strictures of his mentor, Sigmund Freud, he began regular retreats

to a rustic stone house he built in the woods outside the small town of Bollingen. When there, Jung would lock himself every morning into a minimally appointed room to write without interruption. He would then meditate and walk in the woods to clarify his thinking in preparation for the next day's writing. These efforts, I argued, were aimed at increasing the intensity of Jung's deep work to a level that would allow him to succeed in intellectual combat with Freud and his many supporters.

In recalling this story I want to emphasize something important: Jung did *not* deploy a monastic approach to deep work. Donald Knuth and Neal

Stephenson, our examples from earlier, attempted to completely eliminate distraction and shallowness from their professional lives. Jung, by contrast, sought this elimination only during the periods he spent at his retreat. The rest of Jung's time was spent in Zurich, where his life was anything but monastic: He ran a busy clinical practice that often had him seeing patients until late at night; he was an active participant in the Zurich coffeehouse culture; and he gave and attended many lectures in the city's respected universities. (Einstein received his doctorate from one university in Zurich and later taught at another; he also, interestingly enough,

knew Jung, and the two shared several dinners to discuss the key ideas of Einstein's special relativity.) Jung's life in Zurich, in other words, is similar in many ways to the modern archetype of the hyperconnected digital-age knowledge worker: Replace "Zurich" with "San Francisco" and "letter" with "tweet" and we could be discussing some hotshot tech CEO.

Jung's approach is what I call the *bimodal philosophy* of deep work. This philosophy asks that you divide your time, dedicating some clearly defined stretches to deep pursuits and leaving the rest open to everything else. During the deep time, the bimodal worker will act

monastically—seeking intense and uninterrupted concentration. During the shallow time, such focus is not prioritized. This division of time between deep and open can happen on multiple scales. For example, on the scale of a week, you might dedicate a four-day weekend to depth and the rest to open time. Similarly, on the scale of a year, you might dedicate one season to contain most of your deep stretches (as many academics do over the summer or while on sabbatical).

The bimodal philosophy believes that deep work can produce extreme productivity, *but only if* the subject dedicates enough time to such endeavors

to reach maximum cognitive intensity—the state in which real breakthroughs occur. This is why the minimum unit of time for deep work in this philosophy tends to be at least one full day. To put aside a few hours in the morning, for example, is too short to count as a deep work stretch for an adherent of this approach.

At the same time, the bimodal philosophy is typically deployed by people who cannot succeed in the absence of substantial commitments to non-deep pursuits. Jung, for example, needed his clinical practice to pay the bills and the Zurich coffeehouse scene to stimulate his thinking. The approach of

shifting between two modes provides a way to serve both needs well.

To provide a more modern example of the bimodal philosophy in action, we can once again consider Adam Grant, the Wharton Business School professor whose thoughtfulness about work habits was first introduced in Part 1. As you might recall, Grant's schedule during his rapid rise through the professorship ranks at Wharton provides a nice bimodality case study. On the scale of the academic year, he stacked his courses into one semester, so that he could focus the other on deep work. During these deep semesters he then applied the bimodal approach on the

weekly scale. He would, perhaps once or twice a month, take a period of two to four days to become completely monastic. He would shut his door, put an out-of-office auto-responder on his e-mail, and work on his research without interruption. Outside of these deep sessions, Grant remained famously open and accessible. In some sense, he had to be: His 2013 bestseller, *Give and Take*, promotes the practice of giving of your time and attention, without expectation of something in return, as a key strategy in professional advancement.

Those who deploy the bimodal philosophy of deep work admire the productivity of the monastics but also

respect the value they receive from the shallow behaviors in their working lives. Perhaps the biggest obstacle to implementing this philosophy is that even short periods of deep work require a flexibility that many fear they lack in their current positions. If even an hour away from your inbox makes you uncomfortable, then certainly the idea of disappearing for a day or more at a time will seem impossible. But I suspect bimodal working is compatible with more types of jobs than you might guess. Earlier, for example, I described a study by Harvard Business School professor Leslie Perlow. In this study, a group of management consultants were asked to

disconnect for a full day each workweek. The consultants were afraid the client would rebel. It turned out that the client didn't care. As Jung, Grant, and Perlow's subjects discovered, people will usually respect your right to become inaccessible if these periods are well defined and well advertised, and outside these stretches, you're once again easy to find.

The Rhythmic Philosophy of Deep Work Scheduling

In the early days of the *Seinfeld* show, Jerry Seinfeld remained a working

comic with a busy tour schedule. It was during this period that a writer and comic named Brad Isaac, who was working open mic nights at the time, ran into Seinfeld at a club waiting to go on stage. As Isaac later explained in a now classic Lifehacker article: "I saw my chance. I had to ask Seinfeld if he had any tips for a young comic. What he told me was something that would benefit me for a lifetime."

Seinfeld began his advice to Isaac with some common sense, noting "the way to be a better comic was to create better jokes," and then explaining that the way to create better jokes was to write every day. Seinfeld continued by

describing a specific technique he used to help maintain this discipline. He keeps a calendar on his wall. Every day that he writes jokes he crosses out the date on the calendar with a big red *X*. "After a few days you'll have a chain," Seinfeld said. "Just keep at it and the chain will grow longer every day. You'll like seeing that chain, especially when you get a few weeks under your belt. Your only job next is to not break the chain."

This *chain method* (as some now call it) soon became a hit among writers and fitness enthusiasts—communities that thrive on the ability to do hard things consistently. For our purposes, it

provides a specific example of a general approach to integrating depth into your life: the *rhythmic philosophy*. This philosophy argues that the easiest way to consistently start deep work sessions is to transform them into a simple regular habit. The goal, in other words, is to generate a *rhythm* for this work that removes the need for you to invest energy in deciding if and when you're going to go deep. The chain method is a good example of the rhythmic philosophy of deep work scheduling because it combines a simple scheduling heuristic (do the work every day), with an easy way to remind yourself to do the work: the big red *X*s on the calendar.

Another common way to implement the rhythmic philosophy is to replace the visual aid of the chain method with a set starting time that you use every day for deep work. In much the same way that maintaining visual indicators of your work progress can reduce the barrier to entry for going deep, eliminating even the simplest scheduling decisions, such as when during the day to do the work, also reduces this barrier.

Consider the example of Brian Chappell, the busy doctoral candidate I introduced in the opening to this strategy. Chappell adopted the rhythmic philosophy of deep work scheduling out of necessity. Around the time that he was

ramping up his dissertation writing he was offered a full-time job at a center on the campus where he was a student. Professionally, this was a good opportunity and Chappell was happy to accept it. But academically, a full-time job, especially when coupled with the recent arrival of Chappell's first child, made it difficult to find the depth needed to write thesis chapters.

Chappell began by attempting a vague commitment to deep work. He made a rule that deep work needed to happen in ninety-minute chunks (recognizing correctly that it takes time to ease into a state of concentration) and he decided he would try to schedule

these chunks in an ad hoc manner whenever appropriate openings in his schedule arose. Not surprisingly, this strategy didn't yield much productivity. In a dissertation boot camp Chappell had attended the year before, he'd managed to produce a full thesis chapter in a single week of rigorous deep work. After he accepted his full-time job, he managed to produce only a single additional chapter in *the entire first year* he was working.

It was the glacial writing progress during this year that drove Chappell to embrace the rhythmic method. He made a rule that he would wake up and start working by five thirty every morning. He

would then work until seven thirty, make breakfast, and go to work already done with his dissertation obligations for the day. Pleased by early progress, he soon pushed his wake-up time to four forty-five to squeeze out even more morning depth.

When I interviewed Chappell for this book, he described his rhythmic approach to deep work scheduling as "both astronomically productive and guilt free." His routine was producing four to five pages of academic prose per day and was capable of generating drafts of thesis chapters at a rate of one chapter *every two or three weeks*: a phenomenal output for someone who also worked a

nine-to-five job. “Who’s to say that I can’t be that prolific?” he concluded. “Why not me?”

The rhythmic philosophy provides an interesting contrast to the bimodal philosophy. It perhaps fails to achieve the most intense levels of deep thinking sought in the daylong concentration sessions favored by the bimodalist. The trade-off, however, is that this approach works better with the reality of human nature. By supporting deep work with rock-solid routines that make sure a little bit gets done on a regular basis, the rhythmic scheduler will often log a larger total number of deep hours per year.

The decision between rhythmic and bimodal can come down to your self-control in such scheduling matters. If you're Carl Jung and are engaged in an intellectual dogfight with Sigmund Freud's supporters, you'll likely have no trouble recognizing the importance of finding time to focus on your ideas. On the other hand, if you're writing a dissertation with no one pressuring you to get it done, the habitual nature of the rhythmic philosophy might be necessary to maintain progress.

For many, however, it's not just self-control issues that bias them toward the rhythmic philosophy, but also the reality that some jobs don't allow you to

disappear for days at a time when the need to go deep arises. (For a lot of bosses, the standard is that you're free to focus as hard as you want… so long as the boss's e-mails are still answered promptly.) This is likely the biggest reason why the rhythmic philosophy is one of the most common among deep workers in standard office jobs.

The Journalistic Philosophy of Deep Work Scheduling

In the 1980s, the journalist Walter Isaacson was in his thirties and well along in his rapid ascent through the

ranks of *Time* magazine. By this point, he was undoubtedly on the radar of the thinking class. Christopher Hitchens, for example, writing in the *London Review of Books* during this period, called him "one of the best magazine journalists in America." The time was right for Isaacson to write a Big Important Book —a necessary step on the ladder of journalistic achievement. So Isaacson chose a complicated topic, an intertwined narrative biography of six figures who played an important role in early Cold War policy, and teamed up with a fellow young *Time* editor, Evan Thomas, to produce an appropriately weighty book: an 864-page epic titled

The Wise Men: Six Friends and the World They Made.

This book, which was published in 1986, was well received by the right people. The *New York Times* called it "a richly textured account," while the *San Francisco Chronicle* exulted that the two young writers had "fashioned a Cold War Plutarch." Less than a decade later, Isaacson reached the apex of his journalism career when he was appointed editor of *Time* (which he then followed with a second act as the CEO of a think tank and an incredibly popular biographer of figures including Benjamin Franklin, Albert Einstein, and Steve Jobs).

What interests me about Isaacson, however, is not *what* he accomplished with his first book but *how* he wrote it. In uncovering this story, I must draw from a fortunate personal connection. As it turns out, in the years leading up to the publication of *The Wise Men*, my uncle John Paul Newport, who was also a journalist in New York at the time, shared a summer beach rental with Isaacson. To this day, my uncle remembers Isaacson's impressive work habits:

> *It was always amazing... he could retreat up to the bedroom for a while, when the rest of us*

were chilling on the patio or whatever, to work on his book... he'd go up for twenty minutes or an hour, we'd hear the typewriter pounding, then he'd come down as relaxed as the rest of us... the work never seemed to faze him, he just happily went up to work when he had the spare time.

Isaacson was methodic: Any time he could find some free time, he would switch into a deep work mode and hammer away at his book. This is how, it turns out, one can write a nine-hundred-page book on the side while spending

the bulk of one's day becoming one of the country's best magazine writers.

I call this approach, in which you fit deep work wherever you can into your schedule, the *journalist philosophy*. This name is a nod to the fact that journalists, like Walter Isaacson, are trained to shift into a writing mode on a moment's notice, as is required by the deadline-driven nature of their profession.

This approach is not for the deep work novice. As I established in the opening to this rule, the ability to rapidly switch your mind from shallow to deep mode doesn't come naturally. Without practice, such switches can seriously

deplete your finite willpower reserves. This habit also requires a sense of confidence in your abilities—a conviction that what you're doing is important and will succeed. This type of conviction is typically built on a foundation of existing professional accomplishment. Isaacson, for example, likely had an easier time switching to writing mode than, say, a first-time novelist, because Isaacson had worked himself up to become a respected writer by this point. He *knew* he had the capacity to write an epic biography and understood it to be a key task in his professional advancement. This confidence goes a long way in

motivating hard efforts.

I'm partial to the journalistic philosophy of deep work because it's my main approach to integrating these efforts into my schedule. In other words, I'm not monastic in my deep work (though I do find myself occasionally jealous of my fellow computer scientist Donald Knuth's unapologetic disconnection), I don't deploy multiday depth binges like the bimodalists, and though I am intrigued by the rhythmic philosophy, my schedule has a way of thwarting attempts to enforce a daily habit. Instead, in an ode to Isaacson, I face each week as it arrives and do my best to squeeze out as much depth as

possible. To write this book, for example, I had to take advantage of free stretches of time wherever they popped up. If my kids were taking a good nap, I'd grab my laptop and lock myself in the home office. If my wife wanted to visit her parents in nearby Annapolis on a weekend day, I'd take advantage of the extra child care to disappear to a quiet corner of their house to write. If a meeting at work was canceled, or an afternoon left open, I might retreat to one of my favorite libraries on campus to squeeze out a few hundred more words. And so on.

I should admit that I'm not pure in my application of the journalist philosophy.

I don't, for example, make all my deep work decisions on a moment-to-moment basis. I instead tend to map out when I'll work deeply during each week at the beginning of the week, and then refine these decisions, as needed, at the beginning of each day (see Rule #4 for more details on my scheduling routines). By reducing the need to make decisions about deep work moment by moment, I can preserve more mental energy for the deep thinking itself.

In the final accounting, the journalistic philosophy of deep work scheduling remains difficult to pull off. But if you're confident in the value of what you're trying to produce, and

practiced in the skill of going deep (a skill we will continue to develop in the strategies that follow), it can be a surprisingly robust way to squeeze out large amounts of depth from an otherwise demanding schedule.

Ritualize

An often-overlooked observation about those who use their minds to create valuable things is that they're rarely haphazard in their work habits. Consider the Pulitzer Prize–winning biographer Robert Caro. As revealed in a 2009 magazine profile, "every inch of

[Caro's] New York office is governed by rules." Where he places his books, how he stacks his notebooks, what he puts on his wall, even what he wears to the office: Everything is specified by a routine that has varied little over Caro's long career. "I trained myself to be organized," he explained.

Charles Darwin had a similarly strict structure for his working life during the period when he was perfecting *On the Origin of Species*. As his son Francis later remembered, he would rise promptly at seven to take a short walk. He would then eat breakfast alone and retire to his study from eight to nine thirty. The next hour was dedicated to

reading his letters from the day before, after which he would return to his study from ten thirty until noon. After this session, he would mull over challenging ideas while walking on a proscribed route that started at his greenhouse and then circled a path on his property. He would walk until satisfied with his thinking then declare his workday done.

The journalist Mason Currey, who spent half a decade cataloging the habits of famous thinkers and writers (and from whom I learned the previous two examples), summarized this tendency toward systematization as follows:

There is a popular notion that

artists work from inspiration—that there is some strike or bolt or bubbling up of creative mojo from who knows where… but I hope [my work] makes clear that waiting for inspiration to strike is a terrible, terrible plan. In fact, perhaps the single best piece of advice I can offer to anyone trying to do creative work is to ignore inspiration.

In a *New York Times* column on the topic, David Brooks summarizes this reality more bluntly: "[Great creative minds] think like artists but work like accountants."

This strategy suggests the following: To make the most out of your deep work sessions, build rituals of the same level of strictness and idiosyncrasy as the important thinkers mentioned previously. There's a good reason for this mimicry. Great minds like Caro and Darwin didn't deploy rituals to be weird; they did so because success in their work depended on their ability to go deep, again and again—there's no way to win a Pulitzer Prize or conceive a grand theory without pushing your brain to its limit. Their rituals minimized the friction in this transition to depth, allowing them to go deep more easily and stay in the state longer. If they had instead waited

for inspiration to strike before settling in to serious work, their accomplishments would likely have been greatly reduced.

There's no one *correct* deep work ritual—the right fit depends on both the person and the type of project pursued. But there are some general questions that any effective ritual must address:

• **Where you'll work and for how long**. Your ritual needs to specify a location for your deep work efforts. This location can be as simple as your normal office with the door shut and desk cleaned off (a colleague of mine likes to put a hotel-style "do not disturb" sign on his office door when he's tackling

something difficult). If it's possible to identify a location used *only* for depth—for instance, a conference room or quiet library—the positive effect can be even greater. (If you work in an open office plan, this need to find a deep work retreat becomes particularly important.) Regardless of where you work, be sure to also give yourself a specific time frame to keep the session a discrete challenge and not an open-ended slog.

• **How you'll work once you start to work**. Your ritual needs rules and processes to keep your efforts structured. For example, you might

institute a ban on any Internet use, or maintain a metric such as words produced per twenty-minute interval to keep your concentration honed. Without this structure, you'll have to mentally litigate again and again what you should and should not be doing during these sessions and keep trying to assess whether you're working sufficiently hard. These are unnecessary drains on your willpower reserves.

- **How you'll support your work**. Your ritual needs to ensure your brain gets the support it needs to keep operating at a high level of depth. For

example, the ritual might specify that you start with a cup of good coffee, or make sure you have access to enough food of the right type to maintain energy, or integrate light exercise such as walking to help keep the mind clear. (As Nietzsche said: "It is only ideas gained from walking that have any worth.") This support might also include environmental factors, such as organizing the raw materials of your work to minimize energy-dissipating friction (as we saw with Caro's example). To maximize your success, you need to support your efforts to go deep. At the same time, this support

needs to be systematized so that you don't waste mental energy figuring out what you need in the moment.

These questions will help you get started in crafting your deep work ritual. But keep in mind that finding a ritual that sticks might require experimentation, so be willing to work at it. I assure you that the effort's worth it: Once you've evolved something that feels right, the impact can be significant. To work deeply is a big deal and should not be an activity undertaken lightly. Surrounding such efforts with a complicated (and perhaps, to the outside world, quite strange) ritual accepts this reality—

providing your mind with the structure and commitment it needs to slip into the state of focus where you can begin to create things that matter.

Make Grand Gestures

In the early winter of 2007, J.K. Rowling was struggling to complete *The Deathly Hallows*, the final book in her Harry Potter series. The pressure was intense, as this book bore the responsibility of tying together the six that preceded it in a way that would satisfy the series' hundreds of millions of fans. Rowling needed to work deeply

to satisfy these demands, but she was finding unbroken concentration increasingly difficult to achieve at her home office in Edinburgh, Scotland. "As I was finishing *Deathly Hallows* there came a day where the window cleaner came, the kids were at home, the dogs were barking," Rowling recalled in an interview. It was too much, so J.K. Rowling decided to do something extreme to shift her mind-set where it needed to be: She checked into a suite in the five-star Balmoral Hotel, located in the heart of downtown Edinburgh. "So I came to this hotel because it's a beautiful hotel, but I didn't intend to stay here," she explained. "[But] the first

day's writing went well so I kept coming back… and I ended up finishing the last of the *Harry Potter* books [here]."

In retrospect, it's not surprising that Rowling ended up staying. The setting was perfect for her project. The Balmoral, known as one of Scotland's most luxurious hotels, is a classic Victorian building complete with ornate stonework and a tall clock tower. It's also located only a couple of blocks away from Edinburgh Castle—one of Rowling's inspirations in dreaming up Hogwarts.

Rowling's decision to check into a luxurious hotel suite near Edinburgh Castle is an example of a curious but

effective strategy in the world of deep work: *the grand gesture*. The concept is simple: By leveraging a radical change to your normal environment, coupled perhaps with a significant investment of effort or money, all dedicated toward supporting a deep work task, you increase the perceived importance of the task. This boost in importance reduces your mind's instinct to procrastinate and delivers an injection of motivation and energy.

Writing a chapter of a Harry Potter novel, for example, is hard work and will require a lot of mental energy—regardless of where you do it. But when paying more than $1,000 a day to write

the chapter in a suite of an old hotel down the street from a Hogwarts-style castle, *mustering* the energy to begin and sustain this work is easier than if you were instead in a distracting home office.

When you study the habits of other well-known deep workers, the grand gesture strategy comes up often. Bill Gates, for example, was famous during his time as Microsoft CEO for taking Think Weeks during which he would leave behind his normal work and family obligations to retreat to a cabin with a stack of papers and books. His goal was to think deeply, without distraction, about the big issues relevant to his

company. It was during one of these weeks, for example, that he famously came to the conclusion that the Internet was going to be a major force in the industry. There was nothing physically stopping Gates from thinking deeply in his office in Microsoft's Seattle headquarters, but the novelty of his weeklong retreat helped him achieve the desired levels of concentration.

The MIT physicist and award-winning novelist Alan Lightman also leverages grand gestures. In his case, he retreats each summer to a "tiny island" in Maine to think deeply and recharge. At least as of 2000, when he described this gesture in an interview, the island

not only lacked Internet, but didn't even have phone service. As he then justified: "It's really about two and a half months that I'll feel like I can recover some silence in my life… which is so hard to find."

Not everyone has the freedom to spend two months in Maine, but many writers, including Dan Pink and Michael Pollan, simulate the experience year-round by building—often at significant expense and effort—writing cabins on their properties. (Pollan, for his part, even wrote a book about his experience building his cabin in the woods behind his former Connecticut home.) These outbuildings aren't strictly necessary for

these writers, who need only a laptop and a flat surface to put it on to ply their trade. But it's not the amenities of the cabins that generate their value; it's instead the grand gesture represented in the design and building of the cabin for the sole purpose of enabling better writing.

Not every grand gesture need be so permanent. After the pathologically competitive Bell Labs physicist William Shockley was scooped in the invention of the transistor—as I detail in the next strategy, two members of his team made the breakthrough at a time when Shockley was away working on another project—he locked himself in a hotel

room in Chicago, where he had traveled ostensibly to attend a conference. He didn't emerge from the room until he had ironed out the details for a better design that had been rattling around in his mind. When he finally did leave the room, he airmailed his notes back to Murray Hill, New Jersey, so that a colleague could paste them into his lab notebook and sign them to timestamp the innovation. The junction form of the transistor that Shockley worked out in this burst of depth ended up earning him a share of the Nobel Prize subsequently awarded for the invention.

An even more extreme example of a onetime grand gesture yielding results is

a story involving Peter Shankman, an entrepreneur and social media pioneer. As a popular speaker, Shankman spends much of his time flying. He eventually realized that thirty thousand feet was an ideal environment for him to focus. As he explained in a blog post, "Locked in a seat with nothing in front of me, nothing to distract me, nothing to set off my 'Ooh! Shiny!' DNA, I have nothing to do but be at one with my thoughts." It was sometime after this realization that Shankman signed a book contract that gave him only two weeks to finish the entire manuscript. Meeting this deadline would require incredible concentration. To achieve this state, Shankman did

something unconventional. He booked a round-trip business-class ticket to Tokyo. He wrote during the whole flight to Japan, drank an espresso in the business class lounge once he arrived in Japan, then turned around and flew back, once again writing the whole way—arriving back in the States only thirty hours after he first left with a completed manuscript now in hand. "The trip cost $4,000 and was worth every penny," he explained.

In all of these examples, it's not just the change of environment or seeking of quiet that enables more depth. The dominant force is the psychology of committing so seriously to the task at

hand. To put yourself in an exotic location to focus on a writing project, or to take a week off from work just to think, or to lock yourself in a hotel room until you complete an important invention: These gestures push your deep goal to a level of mental priority that helps unlock the needed mental resources. Sometimes to go deep, you must first go big.

Don't Work Alone

The relationship between deep work and collaboration is tricky. It's worth taking the time to untangle, however, because

properly leveraging collaboration can increase the quality of deep work in your professional life.

It's helpful to start our discussion of this topic by taking a step back to consider what at first seems to be an unresolvable conflict. In Part 1 of this book I criticized Facebook for the design of its new headquarters. In particular, I noted that the company's goal to create the world's largest open office space—a giant room that will reportedly hold twenty-eight hundred workers—represents an absurd attack on concentration. Both intuition and a growing body of research underscore the reality that sharing a workspace with a

large number of coworkers is incredibly distracting—creating an environment that thwarts attempts to think seriously. In a 2013 article summarizing recent research on this topic, *Bloomberg Businessweek* went so far as to call for an end to the "tyranny of the open-plan office."

And yet, these open office designs are not embraced haphazardly. As Maria Konnikova reports in *The New Yorker*, when this concept first emerged, its goal was to "facilitate communication and idea flow." This claim resonated with American businesses looking to embrace an aura of start-up unconventionality. Josh Tyrangiel, the editor of *Bloomberg*

Businessweek, for example, explained the lack of offices in Bloomberg's headquarters as follows: "Open plan is pretty spectacular; it ensures that everyone is attuned to the broad mission, and… it encourages curiosity between people who work in different disciplines." Jack Dorsey justified the open layout of the Square headquarters by explaining: "We encourage people to stay out in the open because we believe in serendipity—and people walking by each other teaching new things."

For the sake of discussion, let's call this principle—that when you allow people to bump into each other smart collaborations and new ideas emerge—

the *theory of serendipitous creativity*. When Mark Zuckerberg decided to build the world's largest office, we can reasonably conjecture, this theory helped drive his decision, just as it has driven many of the moves toward open workspaces elsewhere in Silicon Valley and beyond. (Other less-exalted factors, like saving money and increasing supervision, also play a role, but they're not as sexy and are therefore less emphasized.)

This decision between promoting concentration and promoting serendipity seems to indicate that deep work (an individual endeavor) is incompatible with generating creative insights (a

collaborative endeavor). This conclusion, however, is flawed. It's based, I argue, on an incomplete understanding of the theory of serendipitous creativity. To support this claim, let's consider the origins of this particular understanding of what spurs breakthroughs.

The theory in question has many sources, but I happen to have a personal connection to one of the more well-known. During my seven years at MIT, I worked on the site of the institute's famed Building 20. This structure, located at the intersection of Main and Vassar Streets in East Cambridge, and eventually demolished in 1998, was

thrown together as a temporary shelter during World War II, meant to house the overflow from the school's bustling Radiation Laboratory. As noted by a 2012 *New Yorker* article, the building was initially seen as a failure: "Ventilation was poor and hallways were dim. The walls were thin, the roof leaked, and the building was broiling in the summer and freezing in the winter."

When the war ended, however, the influx of scientists to Cambridge continued. MIT needed space, so instead of immediately demolishing Building 20 as they had promised local officials (in exchange for lax permitting), they continued using it as overflow space.

The result was that a mismatch of different departments—from nuclear science to linguistics to electronics—shared the low-slung building alongside more esoteric tenants such as a machine shop and a piano repair facility. Because the building was cheaply constructed, these groups felt free to rearrange space as needed. Walls and floors could be shifted and equipment bolted to the beams. In recounting the story of Jerrold Zacharias's work on the first atomic clock, the abovementioned *New Yorker* article points to the importance of his ability to remove two floors from his Building 20 lab so he could install the three-story cylinder needed for his

experimental apparatus.

In MIT lore, it's generally believed that this haphazard combination of different disciplines, thrown together in a large reconfigurable building, led to chance encounters and a spirit of inventiveness that generated breakthroughs at a fast pace, innovating topics as diverse as Chomsky grammars, Loran navigational radars, and video games, all within the same productive postwar decades. When the building was finally demolished to make way for the $300 million Frank Gehry–designed Stata Center (where I spent my time), its loss was mourned. In tribute to the "plywood palace" it replaced, the

interior design of the Stata Center includes boards of unfinished plywood and exposed concrete with construction markings left intact.

Around the same time that Building 20 was hastily constructed, a more systematic pursuit of serendipitous creativity was under way two hundred miles to the southwest in Murray Hill, New Jersey. It was here that Bell Labs director Mervin Kelly guided the construction of a new home for the lab that would purposefully encourage interaction between its diverse mix of scientists and engineers. Kelly dismissed the standard university-style approach of housing different

departments in different buildings, and instead connected the spaces into one contiguous structure joined by long hallways—some so long that when you stood at one end it would appear to converge to a vanishing point. As Bell Labs chronicler Jon Gertner notes about this design: "Traveling the hall's length without encountering a number of acquaintances, problems, diversions and ideas was almost impossible. A physicist on his way to lunch in the cafeteria was like a magnet rolling past iron filings."

This strategy, mixed with Kelly's aggressive recruitment of some of the world's best minds, yielded some of the

most concentrated innovation in the history of modern civilization. In the decades following the Second World War, the lab produced, among other achievements: the first solar cell, laser, communication satellite, cellular communication system, and fiber optic networking. At the same time, their theorists formulated both information theory and coding theory, their astronomers won the Nobel Prize for empirically validating the Big Bang Theory, and perhaps most important of all, their physicists invented the transistor.

The theory of serendipitous creativity, in other words, seems well

justified by the historical record. The transistor, we can argue with some confidence, probably required Bell Labs and its ability to put solid-state physicists, quantum theorists, and world-class experimentalists in one building where they could serendipitously encounter one another and learn from their varied expertise. This was an invention unlikely to come from a lone scientist thinking deeply in the academic equivalent of Carl Jung's stone tower.

But it's here that we must embrace more nuance in understanding what *really* generated innovation in sites such as Building 20 and Bell Labs. To do so, let's return once again to my own

experience at MIT. When I arrived as a new PhD student in the fall of 2004, I was a member of the first incoming class to be housed in the new Stata Center, which, as mentioned, replaced Building 20. Because the center was new, incoming students were given tours that touted its features. Frank Gehry, we learned, arranged the offices around common spaces and introduced open stairwells between adjacent floors, all in an effort to support the type of serendipitous encounters that had defined its predecessor. But what struck me at the time was a feature that hadn't occurred to Gehry but had been recently added at the faculty's insistence: special

gaskets installed into the office doorjambs to improve soundproofing. The professors at MIT—some of the most innovative technologists in the world—wanted nothing to do with an open-office-style workspace. They instead demanded the ability to close themselves off.

This combination of soundproofed offices connected to large common areas yields a *hub-and-spoke* architecture of innovation in which both serendipitous encounter and isolated deep thinking are supported. It's a setup that straddles a spectrum where on one extreme we find the solo thinker, isolated from inspiration but free from distraction, and

on the other extreme, we find the fully collaborative thinker in an open office, flush with inspiration but struggling to support the deep thinking needed to build on it.*

If we turn our attention back to Building 20 and Bell Labs, we see that this is the architecture they deployed as well. Neither building offered anything resembling a modern open office plan. They were instead constructed using the standard layout of private offices connected to shared hallways. Their creative mojo had more to do with the fact that these offices shared a small number of long connecting spaces—forcing researchers to interact whenever

they needed to travel from one location to another. These mega-hallways, in other words, provided highly effective hubs.

We can, therefore, still dismiss the depth-destroying open office concept without dismissing the innovation-producing theory of serendipitous creativity. The key is to maintain both in a hub-and-spoke-style arrangement: Expose yourself to ideas in hubs on a regular basis, but maintain a spoke in which to work deeply on what you encounter.

This division of efforts, however, is not the full story, as even when one returns to a spoke, solo work is still not

necessarily the best strategy. Consider, for example, the previously mentioned invention of the (point-contact) transistor at Bell Labs. This breakthrough was supported by a large group of researchers, all with separate specialties, who came together to form the *solid-state physics research group* —a team dedicated to inventing a smaller and more reliable alternative to the vacuum tube. This group's collaborative conversations were necessary preconditions to the transistor: a clear example of the usefulness of hub behavior.

Once the research group laid the intellectual groundwork for the

component, the innovation process shifted to a spoke. What makes this particular innovation process an interesting case, however, is that even when it shifted to a spoke it remained collaborative. It was two researchers in particular—the experimentalist Walter Brattain and the quantum theorist John Bardeen—who over a period of one month in 1947 made the series of breakthroughs that led to the first working solid-state transistor.

Brattain and Bardeen worked together during this period in a small lab, often side by side, pushing each other toward better and more effective designs. These efforts consisted

primarily of deep work—but a type of deep work we haven't yet encountered. Brattain would concentrate intensely to engineer an experimental design that could exploit Bardeen's latest theoretical insight; then Bardeen would concentrate intensely to make sense of what Brattain's latest experiments revealed, trying to expand his theoretical framework to match the observations. This back-and-forth represents a collaborative form of deep work (common in academic circles) that leverages what I call *the whiteboard effect*. For some types of problems, working with someone else at the proverbial shared whiteboard can push

you deeper than if you were working alone. The presence of the other party waiting for your next insight—be it someone physically in the same room or collaborating with you virtually—can short-circuit the natural instinct to avoid depth.

We can now step back and draw some practical conclusions about the role of collaboration in deep work. The success of Building 20 and Bell Labs indicates that isolation is not required for productive deep work. Indeed, their example indicates that for many types of work—especially when pursuing innovation—collaborative deep work can yield better results. This strategy,

therefore, asks that you consider this option in contemplating how best to integrate depth into your professional life. In doing so, however, keep the following two guidelines in mind.

First, distraction remains a destroyer of depth. Therefore, the hub-and-spoke model provides a crucial template. Separate your pursuit of serendipitous encounters from your efforts to think deeply and build on these inspirations. You should try to optimize each effort separately, as opposed to mixing them together into a sludge that impedes both goals.

Second, even when you retreat to a spoke to think deeply, when it's

reasonable to leverage the whiteboard effect, do so. By working side by side with someone on a problem, you can push each other toward deeper levels of depth, and therefore toward the generation of more and more valuable output as compared to working alone.

When it comes to deep work, in other words, consider the use of collaboration when appropriate, as it can push your results to a new level. At the same time, don't lionize this quest for interaction and positive randomness to the point where it crowds out the unbroken concentration ultimately required to wring something useful out of the swirl of ideas all around us.

Execute Like a Business

The story has become lore in the world of business consulting. In the mid-1990s, Harvard Business School professor Clayton Christensen received a call from Andy Grove, the CEO and chairman of Intel. Grove had encountered Christensen's research on disruptive innovation and asked him to fly out to California to discuss the theory's implications for Intel. On arrival, Christensen walked through the basics of disruption: entrenched companies are often unexpectedly dethroned by start-ups that begin with cheap offerings at the low end of the market, but then, over

time, improve their cheap products *just enough* to begin to steal high-end market share. Grove recognized that Intel faced this threat from low-end processors produced by upstart companies like AMD and Cyrix. Fueled by his newfound understanding of disruption, Grove devised the strategy that led to the Celeron family of processors—a lower-performance offering that helped Intel successfully fight off the challenges from below.

There is, however, a lesser-known piece to this story. As Christensen recalls, Grove asked him during a break in this meeting, "How do I do this?" Christensen responded with a discussion

of business strategy, explaining how Grove could set up a new business unit and so on. Grove cut him off with a gruff reply: "You are such a naïve academic. I asked you *how* to do it, and you told me *what* I should do. *I know what I need to do. I just don't know how to do it.*"

As Christensen later explained, this division between *what* and *how* is crucial but is overlooked in the professional world. It's often straightforward to identify a strategy needed to achieve a goal, but what trips up companies is figuring out how to execute the strategy once identified. I came across this story in a foreword Christensen wrote for a book titled *The*

4 Disciplines of Execution, which built on extensive consulting case studies to describe four "disciplines" (abbreviated, 4DX) for helping companies successfully implement high-level strategies. What struck me as I read was that this gap between *what* and *how* was relevant to my personal quest to spend more time working deeply. Just as Andy Grove had identified the importance of competing in the low-end processor market, I had identified the importance of prioritizing depth. What I needed was help figuring out how to execute this strategy.

Intrigued by these parallels, I set out to adapt the 4DX framework to my

personal work habits and ended up surprised by how helpful they proved in driving me toward effective action on my goal of working deeply. These ideas may have been forged for the world of big business, but the underlying concepts seem to apply anywhere that something important needs to get done against the backdrop of many competing obligations and distractions. With this in mind, I've summarized in the following sections the four disciplines of the 4DX framework, and for each I describe how I adapted it to the specific concerns of developing a deep work habit.

***Discipline #1**: Focus on the*

Wildly Important

As the authors of *The 4 Disciplines of Execution* explain, "The more you try to do, the less you actually accomplish." They elaborate that execution should be aimed at a small number of "wildly important goals." This simplicity will help focus an organization's energy to a sufficient intensity to ignite real results.

For an individual focused on deep work, the implication is that you should identify a small number of ambitious outcomes to pursue with your deep work hours. The general exhortation to "spend more time working deeply" doesn't spark a lot of enthusiasm. To instead

have a specific goal that would return tangible and substantial professional benefits will generate a steadier stream of enthusiasm. In a 2014 column titled "The Art of Focus," David Brooks endorsed this approach of letting ambitious goals drive focused behavior, explaining: "If you want to win the war for attention, don't try to say 'no' to the trivial distractions you find on the information smorgasbord; try to say 'yes' to the subject that arouses a terrifying longing, and let the terrifying longing crowd out everything else."

For example, when I first began experimenting with 4DX, I set the specific important goal of publishing

five high-quality peer-reviewed papers in the upcoming academic year. This goal was ambitious, as it was more papers than I had been publishing, and there were tangible rewards attached to it (tenure review was looming). Combined, these two properties helped the goal stoke my motivation.

***Discipline #2**: Act on the Lead Measures*

Once you've identified a wildly important goal, you need to measure your success. In 4DX, there are two types of metrics for this purpose: *lag*

measures and *lead* measures. Lag measures describe the thing you're ultimately trying to improve. For example, if your goal is to increase customer satisfaction in your bakery, then the relevant lag measure is your customer satisfaction scores. As the 4DX authors explain, the problem with lag measures is that they come too late to change your behavior: "When you receive them, the performance that drove them is already in the past."

Lead measures, on the other hand, "measure the new behaviors that will drive success on the lag measures." In the bakery example, a good lead measure might be the number of

customers who receive free samples. This is a number you can directly increase by giving out more samples. As you increase this number, your lag measures will likely eventually improve as well. In other words, lead measures turn your attention to improving the behaviors you directly control in the near future that will then have a positive impact on your long-term goals.

For an individual focused on deep work, it's easy to identify the relevant lead measure: *time spent in a state of deep work dedicated toward your wildly important goal*. Returning to my example, this insight had an important impact on how I directed my academic

research. I used to focus on lag measures, such as papers published per year. These measures, however, lacked influence on my day-to-day behavior because there was nothing I could do in the short term that could immediately generate a noticeable change to this long-term metric. When I shifted to tracking deep work hours, suddenly these measures became relevant to my day-to-day: Every hour extra of deep work was immediately reflected in my tally.

***Discipline #3**: Keep a Compelling Scoreboard*

“People play differently when they’re keeping score,” the 4DX authors explain. They then elaborate that when attempting to drive your team’s engagement toward your organization’s wildly important goal, it’s important that they have a public place to record and track their lead measures. This scoreboard creates a sense of competition that drives them to focus on these measures, even when other demands vie for their attention. It also provides a reinforcing source of motivation. Once the team notices their success with a lead measure, they become invested in perpetuating this performance.

In the preceding discipline, I argued that for an individual focused on deep work, hours spent working deeply should be the lead measure. It follows, therefore, that the individual's scoreboard should be a physical artifact in the workspace that displays the individual's current deep work hour count.

In my early experiments with 4DX, I settled on a simple but effective solution for implementing this scoreboard. I took a piece of card stock and divided it into rows, one for each week of the current semester. I then labeled each row with the dates of the week and taped it to the wall next to my computer monitor

(where it couldn't be ignored). As each week progressed, I kept track of the hours spent in deep work that week with a simple tally of tick marks in that week's row. To maximize the motivation generated by this scoreboard, whenever I reached an important milestone in an academic paper (e.g., solving a key proof), I would circle the tally mark corresponding to the hour where I finished the result.* This served two purposes. First, it allowed me to connect, at a visceral level, accumulated deep work hours and tangible results. Second, it helped calibrate my expectations for how many hours of deep work were needed per result. This

reality (which was larger than I first assumed) helped spur me to squeeze more such hours into each week.

***Discipline #4**: Create a Cadence of Accountability*

The 4DX authors elaborate that the final step to help maintain a focus on lead measures is to put in place "a rhythm of regular and frequent meetings of any team that owns a wildly important goal." During these meetings, the team members must confront their scoreboard, commit to specific actions to help improve the score before the next

meeting, and describe what happened with the commitments they made at the last meeting. They note that this review can be condensed to only a few minutes, but it must be regular for its effect to be felt. The authors argue that it's this discipline where "execution really happens."

For an individual focused on his or her own deep work habit, there's likely no team to meet with, but this doesn't exempt you from the need for regular accountability. In multiple places throughout this book I discuss and recommend the habit of a weekly review in which you make a plan for the workweek ahead (see Rule #4). During

my experiments with 4DX, I used a weekly review to look over my scoreboard to celebrate good weeks, help understand what led to bad weeks, and most important, figure out how to ensure a good score for the days ahead. This led me to adjust my schedule to meet the needs of my lead measure—enabling significantly more deep work than if I had avoided such reviews altogether.

The 4DX framework is based on the fundamental premise that execution is more difficult than strategizing. After hundreds and hundreds of case studies, its inventors managed to isolate a few

basic disciplines that seem to work particularly well in conquering this difficulty. It's no surprise, therefore, that these same disciplines can have a similar effect on your personal goal of cultivating a deep work habit.

To conclude, let's return one last time to my own example. As I noted earlier, when I first embraced 4DX I adopted the goal of publishing five peer-reviewed papers in the 2013–2014 academic year. This was an ambitious goal given that I had published only four papers the previous year (a feat I was proud of). Throughout this 4DX experiment, the clarity of this goal, coupled with the simple but unavoidable feedback of my

lead measure scoreboard, pushed me to a level of depth I hadn't before achieved. In retrospect, it was not so much the intensity of my deep work periods that increased, but instead their regularity. Whereas I used to cluster my deep thinking near paper submission deadlines, the 4DX habit kept my mind concentrated throughout the full year. It ended up, I must admit, an exhausting year (especially given that I was writing this book at the same time). But it also turned out to produce a convincing endorsement for the 4DX framework: By the summer of 2014, I had *nine* full papers accepted for publication, more than doubling what I had managed to

accomplish in any preceding year.

Be Lazy

In a 2012 article written for a *New York Times* blog, the essayist and cartoonist Tim Kreider provided a memorable self-description: "I am not busy. I am the laziest ambitious person I know." Kreider's distaste for frenetic work, however, was put to the test in the months leading up to the writing of his post. Here's his description of the period: "I've insidiously started, because of professional obligations, to become busy… every morning my in-

box was full of e-mails asking me to do things I did not want to do or presenting me with problems that I now had to solve."

His solution? He fled to what he calls an "undisclosed location": a place with no TV and no Internet (going online requires a bike ride to the local library), and where he could remain nonresponsive to the pinprick onslaught of small obligations that seem harmless in isolation but aggregate to serious injury to his deep work habit. "I've remembered about buttercups, stink bugs and the stars," Kreider says about his retreat from activity. "I read. And I'm finally getting some real writing done for

the first time in months."

It's important for our purposes to recognize that Kreider is no Thoreau. He didn't retreat from the world of busyness to underscore a complicated social critique. His move to an undisclosed location was instead motivated by a surprising but practical insight: *It made him better at his job.* Here's Kreider's explanation:

> *Idleness is not just a vacation, an indulgence or a vice; it is as indispensable to the brain as vitamin D is to the body, and deprived of it we suffer a mental affliction as disfiguring as*

rickets… it is, paradoxically, necessary to getting any work done.

When Kreider talks of getting work done, of course, he's not referencing shallow tasks. For the most part, the more time you can spend immersed in shallow work the more of it that gets accomplished. As a writer and artist, however, Kreider is instead concerned with deep work—the serious efforts that produce things the world values. These efforts, he's convinced, need the support of a mind regularly released to leisure.

This strategy argues that you should follow Kreider's lead by injecting

regular and substantial freedom from professional concerns into your day, providing you with the idleness paradoxically required to get (deep) work done. There are many ways to accomplish this goal. You could, for example, use Kreider's approach of retreating from the world of shallow tasks altogether by hiding out in an "undisclosed location," but this isn't practical for most people. Instead, I want to suggest a more applicable but still quite powerful heuristic: At the end of the workday, shut down your consideration of work issues until the next morning—no after-dinner e-mail check, no mental replays of

conversations, and no scheming about how you'll handle an upcoming challenge; shut down work thinking completely. If you need more time, then extend your workday, but once you shut down, your mind must be left free to encounter Kreider's buttercups, stink bugs, and stars.

Before describing some tactics that support this strategy, I want to first explore *why* a shutdown will be profitable to your ability to produce valuable output. We have, of course, Tim Kreider's personal endorsement, but it's worth taking the time to also understand the science behind the value of downtime. A closer examination of this

literature reveals the following three possible explanations for this value.

***Reason #1**: Downtime Aids Insights*

Consider the following excerpt from a 2006 paper that appeared in the journal *Science*:

> *The scientific literature has emphasized the benefits of conscious deliberation in decision making for hundreds of years… The question addressed here is whether this view is*

justified. We hypothesize that it is not.

Lurking in this bland statement is a bold claim. The authors of this study, led by the Dutch psychologist Ap Dijksterhuis, set out to prove that some decisions are better left to your unconscious mind to untangle. In other words, to actively try to work through these decisions will lead to a *worse* outcome than loading up the relevant information and then moving on to something else while letting the subconscious layers of your mind mull things over.

Dijksterhuis's team isolated this

effect by giving subjects the information needed for a complex decision regarding a car purchase. Half the subjects were told to think through the information and then make the best decision. The other half were distracted by easy puzzles after they read the information, and were then put on the spot to make a decision without having had time to consciously deliberate. The distracted group ended up performing better.

Observations from experiments such as this one led Dijksterhuis and his collaborators to introduce unconscious thought theory (UTT)—an attempt to understand the different roles conscious and unconscious deliberation play in

decision making. At a high level, this theory proposes that for decisions that require the application of strict rules, the conscious mind must be involved. For example, if you need to do a math calculation, only your conscious mind is able to follow the precise arithmetic rules needed for correctness. On the other hand, for decisions that involve large amounts of information and multiple vague, and perhaps even conflicting, constraints, your unconscious mind is well suited to tackle the issue. UTT hypothesizes that this is due to the fact that these regions of your brain have more neuronal bandwidth available, allowing them to

move around more information and sift through more potential solutions than your conscious centers of thinking. Your conscious mind, according to this theory, is like a home computer on which you can run carefully written programs that return correct answers to limited problems, whereas your unconscious mind is like Google's vast data centers, in which statistical algorithms sift through terabytes of unstructured information, teasing out surprising useful solutions to difficult questions.

The implication of this line of research is that providing your conscious brain time to rest enables your unconscious mind to take a shift sorting

through your most complex professional challenges. A shutdown habit, therefore, is not necessarily reducing the amount of time you're engaged in productive work, but is instead diversifying the type of work you deploy.

***Reason #2**: Downtime Helps Recharge the Energy Needed to Work Deeply*

A frequently cited 2008 paper appearing in the journal *Psychological Science* describes a simple experiment. Subjects were split into two groups. One group was asked to take a walk on a wooded

path in an arboretum near the Ann Arbor, Michigan, campus where the study was conducted. The other group was sent on a walk through the bustling center of the city. Both groups were then given a concentration-sapping task called backward digit-span. The core finding of the study is that the nature group performed up to 20 percent better on the task. The nature advantage still held the next week when the researchers brought back the same subjects and switched the locations: It wasn't the people who determined performance, but whether or not they got a chance to prepare by walking through the woods.

This study, it turns out, is one of

many that validate attention restoration theory (ART), which claims that spending time in nature can improve your ability to concentrate. This theory, which was first proposed in the 1980s by the University of Michigan psychologists Rachel Kaplan and Stephen Kaplan (the latter of which co-authored the 2008 study discussed here, along with Marc Berman and John Jonides), is based on the concept of attention fatigue. To concentrate requires what ART calls *directed attention*. This resource is finite: If you exhaust it, you'll struggle to concentrate. (For our purposes, we can think of this resource as the same thing as Baumeister's

limited willpower reserves we discussed in the introduction to this rule.*) The 2008 study argues that walking on busy city streets requires you to use directed attention, as you must navigate complicated tasks like figuring out when to cross a street to not get run over, or when to maneuver around the slow group of tourists blocking the sidewalk. After just fifty minutes of this focused navigation, the subject's store of directed attention was low.

Walking through nature, by contrast, exposes you to what lead author Marc Berman calls "inherently fascinating stimuli," using sunsets as an example. These stimuli "invoke attention

modestly, allowing focused-attention mechanisms a chance to replenish." Put another way, when walking through nature, you're freed from having to direct your attention, as there are few challenges to navigate (like crowded street crossings), and experience enough interesting stimuli to keep your mind sufficiently occupied to avoid the need to actively aim your attention. This state allows your directed attention resources time to replenish. After fifty minutes of such replenishment, the subjects enjoyed a boost in their concentration.

(You might, of course, argue that perhaps being outside watching a sunset puts people in a good mood, and being

in a good mood is what really helps performance on these tasks. But in a sadistic twist, the researchers debunked that hypothesis by repeating the experiment in the harsh Ann Arbor winter. Walking outside in brutal cold conditions didn't put the subjects in a good mood, but they still ended up doing better on concentration tasks.)

What's important to our purpose is observing that the implications of ART expand beyond the benefits of nature. The core mechanism of this theory is the idea that you can restore your ability to direct your attention if you give this activity a rest. Walking in nature provides such a mental respite, but so,

too, can any number of relaxing activities so long as they provide similar "inherently fascinating stimuli" and freedom from directed concentration. Having a casual conversation with a friend, listening to music while making dinner, playing a game with your kids, going for a run—the types of activities that will fill your time in the evening if you enforce a work shutdown—play the same attention-restoring role as walking in nature.

On the other hand, if you keep interrupting your evening to check and respond to e-mail, or put aside a few hours after dinner to catch up on an approaching deadline, you're robbing

your directed attention centers of the uninterrupted rest they need for restoration. Even if these work dashes consume only a small amount of time, they prevent you from reaching the levels of deeper relaxation in which attention restoration can occur. Only the confidence that you're done with work until the next day can convince your brain to downshift to the level where it can begin to recharge for the next day to follow. Put another way, trying to squeeze a little more work out of your evenings might reduce your effectiveness the next day enough that you end up getting *less* done than if you had instead respected a shutdown.

***Reason #3**: The Work That Evening Downtime Replaces Is Usually Not That Important*

The final argument for maintaining a clear endpoint to your workday requires us to return briefly to Anders Ericsson, the inventor of deliberate practice theory. As you might recall from Part 1, deliberate practice is the systematic stretching of your ability for a given skill. It is the activity required to get better at something. Deep work and deliberate practice, as I've argued, overlap substantially. For our purposes here we can use deliberate practice as a

general-purpose stand-in for cognitively demanding efforts.

In Ericsson's seminal 1993 paper on the topic, titled "The Role of Deliberate Practice in the Acquisition of Expert Performance," he dedicates a section to reviewing what the research literature reveals about an individual's capacity for cognitively demanding work. Ericsson notes that for a novice, somewhere around an hour a day of intense concentration seems to be a limit, while for experts this number can expand to as many as four hours—but rarely more.

One of the studies cited, for example, catalogs the practice habits of a group of

elite violin players training at Berlin's Universität der Künste. This study found the elite players average around three and a half hours per day in a state of deliberate practice, usually separated into two distinct periods. The less accomplished players spent less time in a state of depth.

The implication of these results is that your capacity for deep work in a given day is limited. If you're careful about your schedule (using, for example, the type of productivity strategies described in Rule #4), you should hit your daily deep work capacity during your workday. It follows, therefore, that by evening, you're beyond the point

where you can continue to effectively work deeply. Any work you do fit into the night, therefore, won't be the type of high-value activities that really advance your career; your efforts will instead likely be confined to low-value shallow tasks (executed at a slow, low-energy pace). By deferring evening work, in other words, you're not missing out on much of importance.

The three reasons just described support the general strategy of maintaining a strict endpoint to your workday. Let's conclude by filling in some details concerning implementation.

To succeed with this strategy, you

must first accept the commitment that once your workday shuts down, you cannot allow even the smallest incursion of professional concerns into your field of attention. This includes, crucially, checking e-mail, as well as browsing work-related websites. In both cases, even a brief intrusion of work can generate a self-reinforcing stream of distraction that impedes the shutdown advantages described earlier for a long time to follow (most people are familiar, for example, with the experience of glancing at an alarming e-mail on a Saturday morning and then having its implications haunt your thoughts for the rest of the weekend).

Another key commitment for succeeding with this strategy is to support your commitment to shutting down with a strict *shutdown ritual* that you use at the end of the workday to maximize the probability that you succeed. In more detail, this ritual should ensure that every incomplete task, goal, or project has been reviewed and that for each you have confirmed that either (1) you have a plan you trust for its completion, or (2) it's captured in a place where it will be revisited when the time is right. The process should be an algorithm: a series of steps you always conduct, one after another. When you're done, have a set phrase you say

that indicates completion (to end my own ritual, I say, "Shutdown complete"). This final step sounds cheesy, but it provides a simple cue to your mind that it's safe to release work-related thoughts for the rest of the day.

To make this suggestion more concrete, let me walk through the steps of my own shutdown ritual (which I first developed around the time I was writing my doctoral dissertation, and have deployed, in one form or another, ever since). The first thing I do is take a final look at my e-mail inbox to ensure that there's nothing requiring an urgent response before the day ends. The next thing I do is transfer any new tasks that

are on my mind or were scribbled down earlier in the day into my official task lists. (I use Google Docs for storing my task lists, as I like the ability to access them from any computer—but the technology here isn't really relevant.) Once I have these task lists open, I quickly skim *every* task in every list, and then look at the next few days on my calendar. These two actions ensure that there's nothing urgent I'm forgetting or any important deadlines or appointments sneaking up on me. I have, at this point, reviewed everything that's on my professional plate. To end the ritual, I use this information to make a rough plan for the next day. Once the plan is

created, I say, "Shutdown complete," and my work thoughts are done for the day.

The concept of a shutdown ritual might at first seem extreme, but there's a good reason for it: the Zeigarnik effect. This effect, which is named for the experimental work of the early-twentieth-century psychologist Bluma Zeigarnik, describes the ability of incomplete tasks to dominate our attention. It tells us that if you simply stop whatever you are doing at five p.m. and declare, "I'm done with work until tomorrow," you'll likely struggle to keep your mind clear of professional issues, as the many obligations left unresolved

in your mind will, as in Bluma Zeigarnik's experiments, keep battling for your attention throughout the evening (a battle that they'll often win).

At first, this challenge might seem unresolvable. As any busy knowledge worker can attest, there are *always* tasks left incomplete. The idea that you can ever reach a point where all your obligations are handled is a fantasy. Fortunately, we don't need to *complete* a task to get it off our minds. Riding to our rescue in this matter is our friend from earlier in the rule, the psychologist Roy Baumeister, who wrote a paper with E.J. Masicampo playfully titled "Consider It Done!" In this study, the two researchers

began by replicating the Zeigarnik effect in their subjects (in this case, the researchers assigned a task and then cruelly engineered interruptions), but then found that they could significantly reduce the effect's impact by asking the subjects, soon after the interruption, to make a plan for how they would *later* complete the incomplete task. To quote the paper: "Committing to a specific plan for a goal may therefore not only facilitate attainment of the goal but may also free cognitive resources for other pursuits."

The shutdown ritual described earlier leverages this tactic to battle the Zeigarnik effect. While it doesn't force

you to explicitly identify a plan for every single task in your task list (a burdensome requirement), it does force you to capture every task in a common list, and then review these tasks before making a plan for the next day. This ritual ensures that no task will be forgotten: Each will be reviewed daily and tackled when the time is appropriate. Your mind, in other words, is released from its duty to keep track of these obligations at every moment—your shutdown ritual has taken over that responsibility.

Shutdown rituals can become annoying, as they add an extra ten to fifteen minutes to the end of your

workday (and sometimes even more), but they're necessary for reaping the rewards of systematic idleness summarized previously. From my experience, it should take a week or two before the shutdown habit sticks—that is, until your mind trusts your ritual enough to actually begin to release work-related thoughts in the evening. But once it does stick, the ritual will become a permanent fixture in your life—to the point that skipping the routine will fill you with a sense of unease.

Decades of work from multiple different subfields within psychology all point toward the conclusion that regularly resting your brain improves the

quality of your deep work. When you work, work hard. When you're done, be done. Your average e-mail response time might suffer some, but you'll more than make up for this with the sheer volume of truly important work produced during the day by your refreshed ability to dive deeper than your exhausted peers.