

## THE BIG IDEAS

**Prioritize Prioritizing**  
Strategy #1.

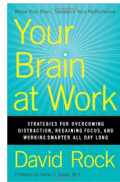
**IQ**  
How to decrease it by 15 points.

**Your Basal Ganglia**  
Is your friend.

**Meet Your Director**  
And put him/her to work!

**How to Stay Cool**  
Under pressure.

**Killer App**  
For emotional regulation



# Your Brain at Work

Strategies for Overcoming Distraction, Regaining Focus, and Working Smarter All Day Long

BY DAVID ROCK · HARPERBUSINESS © 2009 · 304 PAGES

“An avalanche of emails.

An overload of information.

A meeting schedule that leaves you exhausted.

Ever more change and uncertainty.

The occasional win just to keep you going.

If this sounds like your average day at work, you’ve picked up the right book.

This book will help you work smarter, be more focused, and productive, stay cool under pressure, reduce the length of meetings, and even tackle the hardest challenge of all: influencing other people. Along the way it may help you be a better parent and partner, and perhaps even live longer. It will even make coffee for you. Okay, maybe not that last bit, but everything else I mean quite seriously.

This book will transform your performance at work by letting you in on recent and important discoveries about the human brain. You’ll have the chance to get more focused and productive by understanding your own brain at work—at work. It’s only through knowing your brain that you can change it. (How your brain can change by understanding itself is something you will learn about here, too.)”

~ David Rock from *Your Brain at Work*

Ever wonder how your brain works while you’re at work? And, even more importantly, how you can OPTIMIZE how your brain works while you work? If so, this is the book for you.

[David Rock](#) is a leading business consultant and author who spent years interviewing dozens of leading neuroscientists while researching the neuroscience of work. This book is the fruit of his labor. It’s fantastic. (Get a copy [here](#).)

[Dan Siegel](#) wrote the foreword (see Notes on [Mindsight](#)) and David’s primary scientific advisor was Peter Schwartz (Note on *You Are Not Your Brain* soon).

The book is very creatively structured as a play featuring Emily and Paul (a married couple) as they go through their work day. Each scene has two takes—one sub-optimal performance and the other optimized with them embodying a different brain principle.

A key theme throughout the book is the fact that TINY changes in how we approach our work—informed by the leading science—can make HUGE differences in our lives.

The brain is also metaphorically represented as a stage on which the performance of our life occurs. We learn just how important a strong director is as we develop “strategies for overcoming distraction, regaining focus, and working smarter all day long.”

It’s packed with Big Ideas and I’m excited to share a few of my favorites we can apply to our lives NOW so let’s jump straight in!

*“Subtle internal changes, which can happen within a fraction of a second and may not be noticeable to the outside world, can sometimes change everything. This book will help you understand, isolate, and reproduce such changes.”*

~ David Rock

*" One final insight about prioritizing involves getting disciplined about what you \*don't\* put on the stage. This means \*not\* thinking when you don't have to, becoming disciplined about not paying attention to non-urgent tasks unless, or until, it's truly essential that you do. Learning to say no to tasks that are not among your priorities is difficult but very helpful."*

~ David Rock

## PRIORITIZE PRIORITIZING

"If Emily knew how energy-hungry her stage was, she would start her Monday morning differently. The big difference is she would prioritize prioritizing. She would prioritize first, before any other attention rich activity such as emailing. That's because prioritizing is one of the brain's most energy-hungry processes.

After even just a few mental activities, you may not have the resources left to prioritize. Using your stage for something energy intensive such as prioritizing is like flying one of those toy helicopters you see at parks, the ones that are supposed to be for kids but that dads actually buy for themselves. Once Dad gets the helicopter off the ground a few times, it won't get off the ground again because the power is too low. It gets close, rising a few inches off, and then collapses back down. And the more you try, the less energy there is. Best to recharge and try again later. In a similar way, doing ten minutes of emailing can use up the power needed for prioritizing. Emily experienced this when she couldn't 'see' how to prioritize her day and ended up dealing with her emails instead."

That's from Scene 1.

Take one features Emily starting her day checking email. Oops. Now she's off track and sucked into the whirlwind of other peoples's demands and quickly depletes her brain energy needed to effectively prioritize. Sub-optimal.

Take two? Knowing the finite capacity of our brain's energy and the importance of effectively prioritizing the most important stuff, Emily takes a moment to decide how she's going to have a great day by PRIORITIZING FIRST.

TINY (itsy bitsy!) change that leads to \*HUGE\* changes in the quality of her day.

The [compound effect](#) of that super simple ("mundane, unsexy, unexciting, and sometimes difficult daily discipline") is astonishing.

So, the first key lesson from the book: Prioritize FIRST.

Then?

Then do the most important task.

BEFORE you blow up your brain with email and other reactive stuff.

We come back to this theme again and again and again for one simple reason:

IT'S LIFE CHANGING.

(Seriously. If I had to identify THE one thing that helps my creativity/productivity the most beyond the fundies it would be this—identifying and doing the most important thing first thing every day and then systematizing it Scott Adams-style so I'm not even wasting a brain cell in the morning thinking about what the most important thing is. I just do it—which is what I'm doing now at 5:14 am on a Friday after meditating + stretching.

David walks us through the neuroscientific underpinnings of just how limited our brain's energy is, how quickly it can be depleted, and how energy-intense the prioritization process is—which is why, if you allow yourself to get sucked into email first thing, it's often hard to get back to doing any truly deep work.

How're you doing with this?

Still checking email before you do your most important proactive deep work of the day?

Science says: Change your life (!) by prioritizing prioritizing then doing the #1 thing before anything else. Then make that a habit that runs on autopilot. (More on that in a moment!)

*" If you want a specific new map to stay in place, it's important to reactivate that map regularly. Attention changes the brain, but the brain pays attention to a lot of things. Real change requires repetition."*

~ David Rock

*"The surprise result of being always on is that not only do you get a negative effect on mental performance, but it also tends to increase the total number of emails you get. People notice you respond to issues quickly, so they send you more issues to respond to."*

~ David Rock

## WANT TO DECREASE YOUR IQ BY 15 POINTS? HERE'S HOW!

"A study done at the University of London found that constant emailing and text-messaging reduces mental capability by an average of ten points on an IQ test. It was five points for women, and fifteen points for men. This effect is similar to missing a night of sleep. For men, it's around three times more than the effect of smoking cannabis. While this fact might make an interesting dinner party topic, it's really not that amusing that one of the most common 'productivity tools' can make one as dumb as a stoner. (Apologies to technology manufacturers: there are good ways to use this technology, specifically being able to 'switch off' for hours at a time.) 'Always on' may not be the most productive way to work. One of the reasons for this will become clearer in the chapter on staying cool under pressure; however, in summary, the brain is being forced to be on 'alert' far too much. This increases what is known as your *allostatic load*, which is a reading of stress hormones and other factors relating to a sense of threat. The wear and tear from this has an impact. As Stone says, "This always on, anywhere, anytime, anyplace era has created an artificial sense of constant crisis. What happens to mammals in a state of constant crisis is the adrenalized fight-or-flight mechanism kicks in. It's great when tigers are chasing us. How many of those five hundred emails a day is a tiger?"

So... Do you want to reduce your IQ by up to 15 points?

Awesome. Then keep yourself constantly plugged in to your email and text. That'll do it. (And, of course, don't forget that you could always just get stoned all day every day. Oh wait, that would only diminish your IQ by a third of the incessant email/texting. :)

This is from Scene 3 in which David walks us through the science of "dual-task interference"—which is basically the fact that we simply can't do two cognitively demanding tasks at once. (Well, *technically* (!) we can do them in parallel, but we'll do both of them poorly.)

Further, the "allostatic load" we place on ourselves leads to "constant and intense mental exhaustion." (A nice bonus for the decreased performance?)

Let's not put ourselves in a constant state of fight-or-flight.

Take time to U.N.P.L.U.G. Create waves throughout your day.

(Am I repeating myself? Hah. Yes. It's deliberate.)

## SAY HELLO TO YOUR BASAL GANGLIA

*"Minimize energy usage to maximize performance."*

~ David Rock

"The basal ganglia are highly efficient at executing patterns. Use this resource every way you can. Once you repeat a pattern often enough, the basal ganglia can drive the process, freeing up the stage for new functions. Develop routines that can be repeated over and over again: How you call people. How you open up a document, how you delete emails, how you schedule your time. The more you use a pattern, the less attention you will need to pay to doing this task, and the more you will be able to do at one time. While doing this process is obviously not possible with higher-order tasks such as writing a letter, you might be surprised how much can be embedded. For example, I can now, using keystrokes, take less than three seconds (I timed it) and almost no attention to respond to an email with a smiley face, which says essentially, 'Got your email, and I am happy.'"

Your prefrontal cortex is EXTREMELY limited in the amount of info it can manage at one time.

Your basal ganglia, on the other hand, is a MACHINE at recognizing and engaging in repetitive patterns. When I refer to using your finite willpower/mental processing to create a habit that runs on autopilot, that pilot is the basal ganglia.

As David says, we want to "use this resource every way" we can.

*"It's not hard to change your brain. You just need to put in enough effort to focus your attention in new ways."*

~ David Rock

Again, this is what we referred to above with Scott Adams's "I don't waste a brain cell thinking about what I'm going to do" quip. He saves his prefrontal cortex the mental load because he's grooved his AM ritual behavior into his basal ganglia.

We need to do that with AS MUCH STUFF AS WE CAN.

Make it a game. What behaviors can you groove so they become automatic?

P.S. Here's a tiny little example of something I did: As I've mentioned before, every day I do 1 sun salutation, 10 pull-ups, 100 burpees, 1,000 meters of rowing and 10,000 steps. I noticed that I had way better days when I did my burpees earlier in the day—I felt better from the energy boost and I also didn't kinda dread having to do them later in the day! (Hah. It would happen...)

Long story short, I made a goal of banging out 50 burpees (in simple sets of 10) by 8 am. Then, I decided to set my alarm at 6:30 am to remind me to do my first set of 10 so I didn't need to consciously think about it. Alarm goes off (which it just did—which is why I had the idea to add this P.S.) and I just step back from my work and knock out a set of 10. Simple. No brain cells.

It's become SUPER easy to nail it and I have a ton (!) of fun seeing if I can re-set my little chronograph timer on my watch so it says exactly 24 hours have elapsed since my first set the day before. I get a little boost of joy nailing that within 30 seconds every day and then mark my calendar with a "I" saying to myself, "The first one is always the most important. Nice work!" :)

## MEET YOUR DIRECTOR

"The idea of a director goes by many names and has been of great interest to scientists, philosophers, artists, and mystics for centuries. At the dawn of Western philosophy, Socrates said, 'The unexamined life is not worth living.' Today, some people refer to the experience of observing yourself as self-awareness or mindfulness. Sometimes it is called metacognition, which means 'thinking about your thinking.' Or meta-awareness, which means 'awareness of your awareness.' Whatever it's called, this phenomenon is a central thread in much of the world's literature, appearing as a core idea in philosophy, psychology, ethics, leadership, management, education, learning, training, parenting, dieting, sports, and self-improvement. It's hard to read anything about human experience without someone saying that 'knowing yourself' is the first step toward any kind of change."

Using the metaphor of our brain as a stage on which various actors perform and the internal audience cheers (or boos! :o), who plays the most important role?

THE DIRECTOR.

The Director is the one who's there to make sure our actors are performing their roles properly, can re-write the script when/if necessary and, basically, make sure the show is optimized.

As such, having a strong director is ESSENTIAL to creating a great show that is our life.

David walks us through all this in a chapter called "The Intermission" in which we meet our Director. He tells us that "The technical term many neuroscientists ascribe to the concept of the director is mindfulness."

And: "Daniel Siegel explains it this way: 'With the acquisition of a stabilized and refined focus on the mind itself, previously undifferentiated pathways of firing become detectable and then accessible to modification. It is in this way that we can use the focus of the mind to change the function and ultimately the structure of the brain.' What Siegel is saying is that if you can activate your director at will, you perceive more information about your own mental state at any given time. You can then make choices to change what you pay attention to. And right here is the point of this intermission—and perhaps this book: By understanding your brain, you increase your capacity to notice your own experience, whether it's the small capacity of the stage,

*"Unmet expectations are one of the most important experiences to avoid, as these generate the stronger threat response." With any brain function, the important thing is firstly to minimize threat," explains Evian Gordon. 'Only once threat has been minimized can you focus on increasing possible rewards.' Great leaders carefully manage expectations to avoid not meeting them."*

~ David Rock

*"Perhaps the elusive search for happiness is actually a search for the right level of dopamine. From this perspective, to create a 'happy' life perhaps you should live a life with a good amount of novelty, create opportunities for unexpected rewards, and believe that things are always going to get slightly better."*

~ David Rock

the dopamine high of novelty, or the way you need a moment to gather an insight, the more opportunities you have to become mindful, stop, and observe. Instead of becoming more self-aware by meditating on a mountain, you can do so while you work."

In short: We can't change what we can't see. We need a Director who can see the big picture and intervene when necessary—making tiny shifts that lead to big gains.

How do we cultivate that? The same way we build \*every\* skill: PRACTICE.

Practice observing your mind at work. Make tiny 4% improvements in how you approach the little things during your day. Repeat. Let that compound as the Director puts on a great show.

## HERE'S HOW TO STAY COOL UNDER PRESSURE

"Another study of labeling illustrates an intriguing quirk of human nature. Participants were asked to predict if they would feel better or worse if they spoke about their emotions. There was a strong tendency for people to expect that labeling emotions would result in increasing their emotional arousal. Surprisingly, people even predicted that labeling emotions would make the emotions worse, even after doing an experiment that illustrated that labeling their emotions decreased them! Because people incorrectly predict that voicing their feelings will make those feelings worse, a lot of people, especially in the business world, don't discuss their feelings. This is an example of humans developing some unfortunate habits from incorrect assumptions about human nature. We shouldn't be too hard on humanity, though. Plenty of studies show that speaking about emotional experience does bring the emotions back to the surface. The key is how you do it. To reduce arousal, you need to use just a few words to describe an emotion, and ideally use symbolic language, which means using indirect metaphors, metrics, and simplifications of your experience. This requires you to activate your prefrontal cortex, which reduces the arousal in the limbic system. Here's the bottom line: describe an emotion in just a word or two, and it helps reduce the emotion. Open up a dialogue about an emotion, though, and you tend to increase it."

That fascinating goodness is from a section on how to "Stay Cool Under Pressure."

If we want to stay cool under pressure, what should we do? Try to ignore/suppress our emotions? Or express them? Or talk about them in depth? Or...?

Research says suppressing our emotions by trying to pretend they're not there is not wise. And obviously, expressing our emotions to everyone around us all the time isn't wise either.

So, what should we do? Short answer: We want to LABEL them. We want to recognize that we're feeling an emotion—without suppressing it OR going into detail about all we're experiencing.

Dan Siegel says we need to "name it to tame it." Here's what's cool. Our emotional centers exist within our limbic system; our more rational thinking goes on within our prefrontal cortex. Apparently our prefrontal cortex and our limbic system work as a sort of seesaw.

Imagine being in a highly charged emotional state like fear or shame or whatever. Your limbic system is working overtime.

Now, you can cool your limbic system down by using your prefrontal cortex to "symbolically label" the emotion you're experiencing. Something as simple as saying "Hmmm... I'm experiencing fear right now."

(Note: NOT: "I'm experiencing fear right now. Oh, man. I remember that one time I totally screwed up a situation like this. Actually there were several. At least a dozen. I think this might be related to my father being an alcoholic and... :)

Have your Director simply label your emotion. Move from your limbic system to your prefrontal cortex. Then proceed to rock it.

*"It turns out that conscious control over the limbic system is possible, not by suppressing a feeling, but rather by changing the interpretation that creates the feeling in the first place. One difference between labeling and reappraisal, though, is that while people incorrectly predict that labeling will increase arousal, they correctly predict that reappraisal can reduce arousal."*

~ David Rock

" A final word, a brain-based farewell greeting: May your cortisol levels stay low, your dopamine levels high, your oxytocin run thick and rich, your serotonin build to a lovely plateau, and your ability to watch your brain at work keep you fascinated until your last breath. I wish you well on your journey."

~ David Rock

## THE KILLER APP FOR EMOTIONAL REGULATION

"As you learn more about your brain, it becomes possible to stay calm in just about any situation, including the overwhelming limbic system arousal driven by uncertainty about the future. It's reappraisal that gives you this capacity.

Consider what Kevin Ochsner said when I asked him about the impact of his reappraisal research on his own thinking. 'If our emotional responses fundamentally flow out of interpretations, or appraisals, of the world, and we can change those appraisals, then we have to try and do so. And to not do so, at some level, is rather irresponsible.' ...

Gross, with the wonderful understatement of a pure scientist, says, 'It looks as though reappraisal is a fairly efficient way of cutting down the experience and biological representation of negative emotion.' He may be too subtle. To me, reappraisal is one of the most important skills needed for success in life, the other being the ability to observe your mental processes.

When I asked Gross what he thought about reappraisal and its role in education and wider society, he was more effusive: 'I think this knowledge should be taught early, and often. It should be in the water we drink.'"

So... Something happens... How do you interpret the event?

That is THE determining factor in your well-being and performance—which is why David says it's the killer app for emotional regulation and why leading neuroscientists say it's irresponsible to not practice developing it and that it should be taught early and often to the next generation.

Think of reappraisal like strength training for your Director and have fun practicing with the tiny things throughout your day today! :)

B

**Brian Johnson,**  
Chief Philosopher

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### About the Author of "Your Brain at Work"

DAVID ROCK



Dr. David Rock coined the term 'Neuroleadership' and is the Director of the NeuroLeadership Institute, a global initiative bringing neuroscientists and leadership experts together to build a new science for leadership development. With operations in 24 countries, the Institute also helps large organizations operationalize brain research in order to develop better leaders and managers. Connect: [blog.davidrock.net](http://blog.davidrock.net).

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Brian Johnson loves helping people optimize their lives as he studies, embodies and teaches the fundamentals of optimal living—integrating ancient wisdom + modern science + common sense + virtue + mastery + fun. Learn more and optimize your life at [brianjohnson.me](http://brianjohnson.me).