



How Creativity Works
JONAH LEHRER



© Nina Subin

“Jonah Lehrer’s new book confirms what his fans have known all along – that he knows more about science than a lot of scientists and more about writing than a lot of writers.”
– Malcolm Gladwell, author of *The Tipping Point* and *Outliers*

Jonah Lehrer's 5 Tips for Reaching Your Creative Potential

Shattering the myth of muses, higher powers, and even creative “types,” Jonah Lehrer's IMAGINE demonstrates that creativity is not a single gift possessed by the lucky few. It's a variety of distinct thought processes that we can all learn to use more effectively.

Get Stumped (*chapter 1, p. 3*)

The act of being stumped is essential to the creative process because we need to be convinced that there is no solution, that we will never solve our problem, never invent the next big thing, or finish writing the novel. We need that **feeling of frustration** because it leads us to a moment of eventual insight. The final, *Aha!* In a variety of brain-mapping studies, scientists discovered that when faced with a problem, the left hemisphere of the brain—the side of the brain typically associated with analytical problem solving—got right to work. However, the tricky problems the scientists developed quickly wore out the left-brain thought process. The subjects became frustrated and complained about the unsolvable problems. This frustration was crucial because it signaled a need for an alternative method, and scientists saw a shift in activity from the left side of the brain to the right side—the more “creative” side—of the brain. Once activity shifted to the right side, subjects often experienced these moments of **insight**, a flash of activity in the brain resulting in them bolting upright in their chairs as the answer appeared to them. **They had to get stumped in order to get creative and solve the problem.**

Stick With It (*chapter 8, p. 232 and chapter 3, p. 72*)

Although giving up when you're feeling frustrated and stumped seems like a good idea, perseverance and working through the problem is crucial to the left brain transferring activity to the right brain, which hopefully will result in a creative breakthrough. **These qualities, perseverance and passion for long term goals, comprise grit, and no artist, no writer, no inventor would be successful without it.** Grit is the quality that forces you to make sacrifices for the sake of your passion, to work long hours or keep practicing even when practice isn't fun. Studies have shown that grit is one of the most important predictors for success, because no one is talented enough to not have to work hard.

Take a Break (*chapter 2, p. 25*)

Although persistence is key to creative breakthroughs, sometimes taking a break, backing off and refocusing, can help alter your mood and help you achieve a more creative state of mind. Studies show that a relaxed mind, soothed by increased alpha waves, is more likely to see the answers that were blocked by a frustrated state of mind. Relaxing the mind and letting the alpha waves flow is easier than you might think. **Taking a warm shower**, away from the buzzing cell phones and incoming e-mails, can be a great relaxer, both for body and mind. Studies also show that having a more positive outlook—simply being happier—can increase creativity. If you're stuck in the middle of a difficult problem, take a break from it to **watch a funny video** on YouTube. Although it might feel unproductive to stray from the task at hand, in the long run these breaks are proven to increase productivity and creativity. That's why so many successful corporations—from 3M to Google—have adopted breaks for pursuit of outside projects and new ideas as a crucial part of the work day.

IMAGINE: How Creativity Works

Pub. Date: March 19, 2012; Price: \$26.00; Pages: 304; ISBN-13: 978-0-547-38607-2

Become an Outsider (*chapter 5, p. 112*)

For the amount of writers who flock to Paris, you'd think we'd be stuck with an abundance of novels narrated by baguette-eating protagonists lounging in chic cafés. But instead, these writers return with cutting literary essays or novels set in their own American hometowns. They don't go to Paris to write about Paris; it's the getaway, and experiencing life as an outsider, that helps them create. **Studies show that travel is one way to enhance creativity because it encourages thinking outside of your normal self.** Even little things like not knowing whether to tip a waiter or how to say "thank you," stimulate the mind and make you more observant of what is outside of what you already know. But "outsider creativity" doesn't mean that you have to go to Paris if you are searching for a creative breakthrough. It can be a state of mind; it's the same sentiment as telling someone to "**sleep on it**" when they are struggling to find a solution to a problem. Waking up with fresh eyes and becoming an outsider to your own problem can be hugely beneficial to solving it.

Channel Your Inner Seven-Year-Old (*chapter 4, p. 110*)

In a recent study, a psychologist assigned a few hundred undergraduates to two different groups. The first group was given the following instructions: "You are seven years old, and school is canceled. You have the entire day to yourself. What would you do? Where would you go? Who would you see?" The second group was given the exact same instructions, except the first sentence was deleted. As a result, these students didn't imagine themselves as seven-year-olds. After writing for ten minutes, the subjects in both groups were then given various tests of creativity, such as trying to invent alternative uses for an old car tire, or listing all the things one could do with a brick. Interestingly, the students who imagined themselves as young kids scored far higher on the creative tasks, coming up with twice as many ideas as the other group. **It turns out that we can recover creativity we've lost with time. We just have to pretend we're little kids.**

IMAGINE: How Creativity Works

Pub. Date: March 19, 2012; Price: \$26.00; Pages: 304; ISBN-13: 978-0-547-38607-2

The Innovative Cast of Jonah Lehrer's IMAGINE

Bob Dylan (from chapter 1)

In 1965, **Bob Dylan**, exhausted from a world tour and bored with the antiwar folk ballads that made him famous, knew that he needed to take a break. He was stumped—the lyrics that used to come to him so easily had stopped and the music that flowed from his fingertips onto his guitar strings had slowed to a measly drip. After returning to the States at the end of his tour, Dylan headed for a cabin in Woodstock, saying he was done with music. But there, away from the city, something changed. Maybe it was the much needed peace and quiet, or even just good old-fashioned fresh air, but suddenly the music and lyrics, the extraordinary poeticism that made Dylan famous, it all came back. Dylan banged out “Like a Rolling Stone,” the song that many critics argue is the best song of all time. Dylan was out of his slump, breaking through the block to create his most critically acclaimed album, an album that perhaps would not exist had Dylan not left everything behind for a cabin in Woodstock.

Dick Drew(from chapter 2)

When you see sandpaper, you probably see smooth wooden surfaces. But **Dick Drew** saw sandpaper and he saw possibilities. In 1925, Drew, a Minnesota sandpaper salesman, saw a need for a sticky paper product—car mechanics were making a mess of painting straight lines on cars—and he jumped at the opportunity to invent. Drew experimented with adhesives—after all, sandpaper was just adhesive covered with an abrasive—and eventually came up with a weak adhesive that could stick to a painted surface, without damaging the paint. The invention, now known as masking tape, shows that innovative and creative ideas don't only come to inventors and artists—an everyday salesman with an observant eye can invent something if only he's in the right place at the right time, and seizes an opportunity.

Arthur Fry (from chapter 2)

It might seem strange that Post-its, those ubiquitous yellow notes that help us remember appointments and organize our files, were a product of a seemingly unproductive activity: daydreaming. **Arthur Fry**, a paper products engineer at 3M, was daydreaming in church one Sunday morning while trying to keep his place in his hymnal. He usually marked the pages with little slips of paper, but they fell out and he had to slip out of his daydream and frantically thumb through pages in search of the right hymn. So on this particular Sunday, Fry dreamt up a paper with a weak adhesive backing that could stick to the page like a bookmark, but not rip the page. After a few experiments and test prototypes, the Post-it was born.

Milton Glaser (from chapter 3)

In 1975, graphic artist **Milton Glaser** was given the opportunity to create a campaign that would rehabilitate the image of New York City. The catch was that his design had to use the phrase *I love New York*. Glaser worked tirelessly on the design, experimenting with new fonts and eventually found the perfect one to write the charming message. The investors loved his initial *I love New York* design. But it wasn't enough for Glaser and he kept thinking about it, reworking the idea in his mind until one day in a cab, it just came to him. I ♥ NY. His stick-with-it attitude and steadfast focus led him to create what is now the most widely imitated piece of graphic art in the world.

Yo-Yo Ma (from chapter 4)

Celebrated cellist **Yo-Yo Ma** is known for his virtuosity and excellence as much as he is known for his highly emotional and expressive musical style. However, the two go hand in hand: his performances are excellent because Ma invests himself so deeply in the music, letting go of his mind so he can feel the music in his body. This “letting go” is what allows Ma to be so creative with the score, to hush a pianissimo or exaggerate a crescendo as he sees fit. Ma's combined style—the way he plays with the abandon of a

IMAGINE: How Creativity Works

Pub. Date: March 19, 2012; Price: \$26.00; Pages: 304; ISBN-13: 978-0-547-38607-2

beginning musician but with the technique of a seasoned professional—is widely celebrated as one of the most creative and unbelievable musical abilities, an ability he has cultivated because he learned to just let go.

Don Lee (*from chapter 5*)

Although knowing your field inside and out can lead to creative breakthroughs, **Don Lee**, computer programmer-turned-mixologist demonstrates otherwise. After a difficult breakup, Lee started spending a lot of afterwork hours at his local bar, alone, chatting with bartenders. After a while, Lee developed a more acute taste for liquors and started experimenting with mixology on his own. He picked up a few bartending shifts—still working full-time hours as a computer programmer—and he began cultivating his bartending technique. He combined his chemical and professional knowledge with his newfound passion for mixology, yielding such creative concoctions as his signature “bacon-infused old-fashioned.” Now, Lee is chief mixologist for the Momofuku restaurants in New York, a job he excelled at initially because he was an outsider to the world of mixology. Because he didn’t know all the “rules,” he could try anything.

Ruth Handler (*from chapter 5*)

When **Ruth Handler** saw her daughter playing with paper dolls, she was captivated by the roles her daughter had assigned them. Instead of giving the dolls personalities of young children, her daughter played with the dolls as if they were grown up. This one was a waitress, that one a secretary. When Handler suggested that her husband, an executive at Mattel, create a doll that looked like an adult woman, her husband scoffed. But Ruth couldn’t let the idea go. A few years later on a family vacation to Europe, she was reminded of her idea when she repeatedly saw a doll in European bars and smoke shops that echoed her original vision. The doll—which was actually a sex novelty sold mainly to men—was long-legged and blonde, a fully grown woman at 11 inches tall. Again, Handler tried to convince her husband to manufacture a similar doll. Mattel released the Barbie Doll in 1959, and Ruth Handler’s creativity and insight were finally validated when the doll became a best-selling cultural icon.

Dan Wieden (*from chapter 6*)

Dan Wieden, cofounder of the renowned advertising agency Wieden+Kennedy, was working on a campaign for a famous athletic company. He struggled with a tagline, consulted his coworkers, but he remained clueless. Then one night, it came to him. He was thinking absentmindedly about a murderer who was recently put to death and, right before his execution, said fearlessly, “Let’s do it!” The phrase stuck in Wieden’s mind. It was courageous and determined. He altered the phrase a little, and it was perfect: *Just do it*. When Wieden was later asked about how he came up with the award-winning and world famous Nike slogan, he admitted that he wasn’t exactly sure of how or why it came to him. But he was sure of one thing—earlier that day a coworker had mentioned the author Norman Mailer. Wieden knew Mailer had written a book about that courageous murderer on death row, and that’s it. All it took for Wieden was one sentence from a coworker in a collaborative work environment to create his most well-known campaign to date.

William Shakespeare (*from chapter 8*)

Shakespeare is often regarded as the greatest writer this world has ever seen, but he wasn’t the only genius of his time. Late 16th-century London was a hotbed of cultural genius and creative output, and Shakespeare had to compete with many other playwrights for the best theaters, actors, and plays, not to mention funding. Shakespeare succeeded in this atmosphere not only because he was talented, but also because he famously stole ideas and plots from other sources, whether from age-old texts or from his contemporaries. Shakespeare’s arguable plagiarism shows that ideas can be an inexhaustible resource; they can be reworked or redistributed by numerous sources over time. We just have to make sure to maintain a culturally rich and creative environment—whether in the classroom or workplace—where people are encouraged to be innovative, to inspire their peers and create great works (hopefully without plagiarizing).

IMAGINE: How Creativity Works

Pub. Date: March 19, 2012; Price: \$26.00; Pages: 304; ISBN-13: 978-0-547-38607-2