

Less Strain, Better Brain

Research suggests that your next eureka moment could arrive faster if you relax and let your unconscious mind do the driving.

WANT TO INVENT THE next iPod? Then don't try too hard. We may be able to make our minds better at generating ideas, according to recent thinking on how we think, and often the best way to foster a brilliant idea is not to push it.

Nobel laureate physicist Richard Feynman used to visit a topless bar, sip a soda and scribble quantum mechanics on a napkin. Einstein's theory of special relativity came after he imagined himself a child riding on a beam of light. And Greg Swartz, director of innovation at the golf company Ping, says he has come up with 36 ideas for better tees and loftier drives by looking at the stars. After immersing himself in his subject matter, he'll go to his backyard at night and let his mind settle into what he calls a "hyper state" when it is firing on all cylinders. He says it's as if he can almost feel the rush of gamma rays that are said to emanate from the right hemisphere when an idea is born.

Brain scans have revealed that when you think you're not thinking, your unconscious mind may be doing wind sprints searching for a perfect solution. As a result, answers sometimes seem to appear out of nowhere. In reality, that "nowhere" is beneath your consciousness. In studies, these out-of-the-blue insights are more frequently associated with novel, creative solutions than those derived from concentrating hard, according to cognitive neuroscientist Mark Jung-Beeman, of Northwestern University.

Getting to "aha," according to some theories, is more like a cranial relay race than a lightbulb switching on. When you concentrate, you activate the brain's prefrontal lateral areas, which govern analytical thought—the so-called executive network. But more insightful, nuanced answers often come when the baton is passed to the medial area, which is associated with creativity—what used to be called right-brain thinking. For great outside-the-box ideas, you want both networks lit up, says Kalina Christoff, a neuroscientist at the University of British Columbia. But you don't get to fish in those deeper regions just because you want to. In fact, the more you press for it, the more likely you'll get your boots stuck in the executive mode. The best way to access this state is to let your mind wander freely as you do something repetitive like washing dishes—or playing ping-pong, as Google deliberately encourages its nerds to do.

The brain has myriad plans bouncing around waiting for an opportunity to get out, explains Jordan Peterson, a University of Toronto professor. But when we concentrate, the brain suppresses territory on our mental map. It stifles sensations like hunger and fatigue, but it also tells all the plans, thoughts and ideas in our subconscious to shut up.

An "aha" moment is like a cranial relay race, with the analytical and creative regions of the brain working in tandem.

That's why we might be our most creative when we're half asleep and "all those little plans get a chance to talk to each other," says Peterson.

Not everyone is convinced by this theory. Jay Walker, founder of Priceline.com, finds it a bit mushy. "I'm reluctant to believe there is a state of mind that's better for ideation or that the subconscious plays a strong role," he says. Walker now heads Walker Digital, a Stamford, Conn., research lab specializing in network problems whose members have produced 300 patents to date. Walker Digital's technique, he says, is endlessly asking questions, employing rigorous analysis to narrow down solutions. "The reality is, if you look, you will find solutions," he says. **S**

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