PART 1



Meet Your Creative Brain

Wanted: Your Creative Brain

YOU ARE IN POSSESSION of one of the world's most powerful supercomputers, one that has virtually unlimited potential not only to change your life, but also to change your world.

This supercomputer has the ability to adapt to ever-changing environments, understand subtle patterns, and make connections between seemingly unrelated things. It can design skyscrapers, cure life-threatening illnesses, and send humans into space.

It can make you successful, rich, happy, and fulfilled . . . and it's located right inside your skull.

The supercomputer I am talking about is your brain, that miracle machine that allows you to do everything from brushing your teeth in the morning to presenting complex facts and figures to your boss in the afternoon.

Think about it: our brains have shepherded us through some pretty amazing evolutionary developments in record time. In the past 10,000 years, we've invented the wheel, built the pyramids in Egypt, discovered penicillin, developed the Internet, and sent devices of our own making beyond the outer regions of our solar system.

To put it into perspective, consider the fact that the turtle has been around for roughly 220 million years and has yet to make an innovative lifestyle improvement.

So what separates us from the turtle? The answer is: our creative brain. Our brain allows us to feel, love, think, be, and, most important, create.

You may think that creativity is a gift only certain types of people possess, like the Einsteins, Mozarts, or Shakespeares of the world. However, the latest neuroscience research suggests that creative mental functioning involves a set of specific brain activation patterns that can be amplified through conscious effort and a little practice. These are skills that anyone can master. By learning how and when to turn the volume up or down in certain parts of the brain, you can develop your creative potential to achieve greater success and life fulfillment.

In the following chapters, you'll learn about seven brain activation patterns—the CREATES brainsets. You'll see how each brainset affects the way you experience the world around you and how each contributes to the process of creative problem solving. Through entertaining exercises, you'll learn to use these brainsets to take advantage of your creative potential and enrich your life and the lives of those around you.

But the purpose of enhancing creativity is not only for enrichment; it's a vital resource for meeting the challenges and dangers, as well as the opportunities, of the accelerated-change climate of the twenty-first century.

The information and technology explosion, along with cyber-communication and globalization, is transforming the way we learn, the way we do business, and the way we form relationships with each other. The rule books for virtually *every* aspect of human endeavor and interaction—from corporate life to personal life to dating and even parenting—are being rewritten right in the middle of the game. So if all the old bets are off, how do you survive and thrive? The most important asset you have for negotiating this rapidly changing world is *your creative brain*.

Your creative brain can lead you to discover a new and better way to manage some aspect of your business. It can help you to express your unique life experience in a way that inspires or educates others. You can use it to ensure that the best traditions of the past get incorporated into the future or to add beauty to your environment. Your creative brain can even reshape your vision of retirement so that you continue to grow and prosper throughout the decades ahead. There is truly no limit to the potential of your creative brain. . . .

Regardless of your mission for the future, it is crucial that you develop your creative capacities. By developing your creative brain, you can not only adapt to the changing world, but you can make a contribution to that change. By developing your creative brain, you will also prime your brain to discover, innovate, and produce your original contribution to what is shaping up to be a twenty-first-century Golden Age.

Before we go further, let's define exactly what we mean by that nebulous term *creativity*. Though philosophers and writers have come up with a number of definitions for *creative*, there are two elements to the definition that virtually all of us who study creativity agree need to be present in the creative idea or product. First, the creative idea or product needs to be *novel* or *original*, and second, it has to be *useful* or *adaptive* to at least a segment of the population. Note, for example, that the scribblings of a toddler who has just learned to hold a crayon are *novel*... but, as a product, they are not considered *useful* or *adaptive*.

You can take these elements of novel/original and useful/adaptive and apply them to virtually any aspect of your life to increase your productivity and happiness. You can also apply them to the betterment of your community and to the enrichment of society. When you learn to use your creative brain more efficiently, there is no limit to the innovative ideas, products, and new ways of doing things that you can explore.

Your brain is the repository of a unique store of information: it contains autobiographical, factual, and procedural knowledge that

no one else on the planet has access to. When you combine pieces of this knowledge in novel and original ways, and then take the resulting combinations and find applications for them, you are using your creative brain as it was built to be used.

Neuroimaging techniques, such as fMRI (functional magnetic resonance imaging), PET (positron emission tomography), and SPECT (single photon emission computed tomography), have allowed scientists to peek into the brains of highly creative people to see how they unconsciously manipulate their brainsets at various stages of the creative process. For example, different brainsets appear to be activated in highly creative people when they're coming up with new uses for a household item than when they're combining information from a variety of sources to find the solution to a unique problem.² The brainsets you'll become familiar with in future chapters reflect what we've learned from those studies. You'll learn:

- Strategies for accessing brainsets associated with creativity
- When in the creative process to access each of them
- And finally, how to switch easily between different brainsets to enhance your productivity and reduce creative "block"

If you're still unsure about how these brainsets can really benefit your life, then you're in good company. Two of the most common questions I hear in my seminars are these: "Isn't creativity mainly for artists, writers, and musicians?" And "What if I'm just not a creative person?" Let's address these questions right now.

"Isn't Creativity Mainly for Artists, Writers, and Musicians?"

It's true that when we think of creative individuals, we tend to think of those with careers in the arts and sciences. We think of those who have brought richness to our lives by painting a Sistine Chapel, revealing human nature through the lines of *Hamlet*, uplifting us with an "Ode to Joy," or illuminating our night hours with the electric

light. In fact, most of the formal research that's been conducted on creative individuals has concentrated on achievements in the arts and sciences because it is easy to recognize creative accomplishments in these domains of endeavor. The creative aspects of achievement in business, sports, diplomacy, and real-life problem solving are harder to recognize and quantify, but clearly they are just as important.

If you think creativity is just for artists and scientists, then consider these facts:³

- Most Fortune 500 companies and many government agencies have hired a creativity consultant within the past year. Creativity has become an important factor in the survival of businesses.
- The number of business schools offering courses in creativity has doubled in the past five years.
- Business experts polled in 2011 from around the globe agreed that creativity is one of the most influential forces driving today's global economy
- Former U.K. Prime Minister Gordon Brown acknowledged that creativity and innovation are critical to the future of the U.K. economy.
- Forty-three books and 407,000 Web sites are devoted to creative parenting.
- A number of books discuss the importance of creativity in the field of sports, and the theme of the 2009 worldwide conference of the European Network of Academic Sports was "Creativity and Innovation in University Sport."
- Creative athletes, such as Michael Jordan, Roger Bannister, Bill Russell, and—yes—Tiger Woods, often possess personality traits that are found in highly creative individuals in the arts and sciences.

Let's look at a couple of examples of how creativity can serve you in areas of your life that have nothing to do with art, music, or science.

First, in the domain of business, the economic downturn of the past several years has hit small businesses, large corporations, and

individual contractors. If your business is going to fight the uphill battle of survival, you need to find creative ways to cut costs while maintaining quality, provide an innovative product or service rather than the same old product that your competitors are providing, and invent ways to create or maintain market share.

If your business has already succumbed to the economic downturn, you need to be creative in reinventing your professional life, whether it's using skills you already possess to market yourself or developing a new set of skills to enter an entirely new business or profession. Reinventing your professional life takes creativity and courage. But it can be one of the most rewarding enterprises of your life.

Second, in the domain of family you may be one of millions of parents who are faced with the dilemma of how to pass on family values to children who live more harried lives than most adults did just a generation ago. How do you communicate with a child who, despite your best efforts, is wired 24/7 to an iPod, Facebook, IM, and Grand Theft Auto? How do you impart a sense of balance to a child who is constantly bombarded by media that equate self-worth with anorexic thinness, pleasing a man in bed, or having the athletic prowess of a superhero? You *can* do it—but as a parent, you need every ounce of creativity you can muster to compete with electronic gadgets and today's sensationalized media agenda for your child's attention and subsequent welfare.

Speaking of which, how do you keep *yourself* balanced when there are so many demands on your time and personal resources? To maintain your energy—and your sanity—you need to find creative ways to manage your time so that you can juggle the demands of modern existence while still ensuring that your hours and days remain rich and meaningful.

In short, creativity is important for artists, writers, musicians, and inventors; but it is also crucial for societies, businesses, and individuals who need to juggle fulfillment with the demands of the rapid-change culture. You not only need to be creative to enhance your life, you also need to be creative to survive.

"What If I'm Just Not a Creative Person?"

We are all creative. Creativity is the hallmark human capacity that has allowed us to survive thus far. Our brains are wired to be creative, and the only thing stopping you from expressing the creativity that is your birthright is your belief that there are creative people and uncreative people and that you fall in that second category.

Think back to the last conversation in which you participated. Think about what you said. Notice how you pulled selected words representing specific objects, situations, or actions from your memory store and combined them in a novel, never-before-spoken order (unless you work from some sort of talking points sheet) to convey meaning to your listener. The fact is that if you've done nothing but speak in this life, you have demonstrated your creativity over and over again. Each time we speak we put words together in a novel and original way that is useful for our purposes—the essence of creativity!

But of course you do more than speak. You are a creative problem solver. Take a minute to think of the last time you solved a minor problem in your life without an instruction manual. I guarantee you've already done such creative problem solving once or twice just today. How about the last time you used a household item for a purpose other than the one for which you bought it? Examples: using a piece of furniture or a box to hold a door open, using a newspaper to cover your head in a sudden rain shower, or using an empty soup can to water flowers. Finding alternate uses for items is indeed a creative act.

If you've planted a garden, arranged the furniture in your living room or office, deviated from a recipe, driven a new route to the shopping mall, or figured out how to calm a crying child, you've demonstrated your creativity. The truth is that *every day* you perform *hundreds* of creative acts. Take a moment to think of what you did yesterday and count how many acts were unscripted improvisations, how many problems you encountered and solved (including picking out your clothes, deciding what to eat, how to put out work-related or family-related fires); don't compare yourself to others, just think

about your own creative acts . . . and revel in the wonder of your creative brain.

Creativity is *not* an elite activity. And it doesn't matter if you don't gravitate toward traditionally creative professions or activities; you can bring creativity to any endeavor and make it more successful. You *are* creative!

Here's one final incentive to exercise your creative brain: being creative makes you more attractive to the opposite sex (really).

According to evolutionary psychologist Geoffrey Miller, individuals who can use their creative talents successfully to form new adaptive ways of doing things are more likely to survive. As such, creativity is a "fitness indicator" and will, therefore, be attractive to potential sexual mates. Miller suggests that certain human-specific creative endeavors, such as music production, artistic creations, and humor, may have evolved partially to advertise creative fitness to potential mates similar to the way that the peacocks evolved elaborate tail displays or that bowerbirds build colorful nests.⁴

Intuitively, it does seem that we find individuals who sing, write novels or poetry, or who create art or build inventions to be sexually attractive (how else do you explain the female attraction to Mick Jagger?). This intuition is actually backed up with some empirical evidence. Evolutionary psychologists David Buss and Michael Barnes studied mate selection preferences in both married couples and unmarried college undergrads. For the married couples, *artistic-intelligent* was the third most sought-after trait in a long-term mate (after *kind* and *socially exciting*). For both male and female undergraduates, creativity ranked in the top 10 desirable characteristics for a long-term mate (less important than *physically attractive* but more important than *good earning capacity*).

So far, here's what we've established:

- Using your creative brain is crucial for adapting to the fast-changing climate of the twenty-first century.
- Creativity is not just for artists, poets, and musicians.

- You are creative.
- Creative behavior is sexy.

In the next chapter, you'll be introduced to the CREATES brainsets, and you'll take a fun quiz to determine which brainset defines your personal Mental Comfort Zone. Your creative brain has the capacity to make you successful, however you gauge success. By using the brainsets in the following chapters, you'll optimize this capacity.