# THINK, LEARN, SUCCEED

Understanding and Using Your Mind to Thrive at School, the Workplace, and Life

## DR. CAROLINE LEAF



a division of Baker Publishing Group Grand Rapids, Michigan

#### © 2018 by Caroline Leaf

Published by Baker Books a division of Baker Publishing Group PO Box 6287, Grand Rapids, MI 49516-6287 www.bakerbooks.com

Printed in the United States of America

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means—for example, electronic, photocopy, recording—without the prior written permission of the publisher. The only exception is brief quotations in printed reviews.

Library of Congress Cataloging-in-Publication Data

Names: Leaf, Caroline, 1963- author.

Title: Think, learn, succeed: understanding and using your mind to thrive at school, the workplace, and life / Dr. Caroline Leaf.

Description: Grand Rapids: Baker Publishing Group, 2018. Identifiers: LCCN 2018007039 | ISBN 9780801093272 (cloth) Subjects: LCSH: Thought and thinking. | Psychology. Classification: LCC BF441 .L394 2018 | DDC 158.1—dc23 LC record available at https://lccn.loc.gov/2018007039

9780801093616 (ITPE)

The Switch On Your Brain 5-Step Learning Process and The Metacog are registered trademarks of Dr. Caroline Leaf.

This publication is intended to provide helpful and informative material on the subjects addressed. Readers should consult their personal health professionals before adopting any of the suggestions in this book or drawing inferences from it. The author and publisher expressly disclaim responsibility for any adverse effects arising from the use or application of the information contained in this book.

18 19 20 21 22 23 24 7 6 5 4 3 2 1

In keeping with biblical principles of creation stewardship, Baker Publishing Group advocates the responsible use of our natural resources. As a member of the Green Press Initiative, our company uses recycled paper when possible. The text paper of this book is composed in part of post-consumer waste.





This book is dedicated to *everyone*, because everyone needs to think, learn, and succeed in school, work, and life!

Let's stop *striving* and let's start *thriving*—together!

Out of the night that covers me,
Black as the pit from pole to pole,
I thank whatever gods may be
For my unconquerable soul.

In the fell clutch of circumstance
I have not winced nor cried aloud.
Under the bludgeonings of chance
My head is bloody, but unbowed.

Beyond this place of wrath and tears

Looms but the Horror of the shade,
And yet the menace of the years

Finds and shall find me unafraid.

It matters not how strait the gate,

How charged with punishments the scroll,
I am the master of my fate,
I am the captain of my soul.

-William Ernest Henley, "Invictus"

## Contents

Foreword by Dr. Peter Amua-Quarshie 17

Introduction: Are You Succeeding or Just Surviving? 27

Prologue

Acknowledgments 23

Section One The Mindset Guide	
1. Thinking and Learning to Succeed	37
2. The Thinker Mindset 46	
3. The Controlled Thinking Mindset	54
4. The Words Mindset 61	
5. The Controlled Emotions Mindset	65
6. The Forgiveness Mindset 70	
7. The Happiness Mindset 73	
8. The Time Mindset 78	
9. The Possible Mindset 81	
10. The Gratitude Mindset 84	
11. The Community Mindset 87	
12. The Support Mindset 91	
13. The Healthy Stress Mindset 95	
14. The Expectancy Mindset 98	

Contents



15.T	he	Willpower	Mindset	102
------	----	-----------	---------	-----

16. The Spiritual Mindset 104

#### Section Two The Gift Profile

- 17. The Purpose of the Gift Profile 111
- 18. The Gift Profile 128
- 19. Characteristics of the Seven Modules 149

#### Section Three The Switch On Your Brain 5-Step Learning Process

20. What Is Learning? 173

#### Section Four The Science

- 21. What Is Memory? 207
- 22. The Geodesic Information Processing Theory 227

Epilogue 241

Afterword by Dr. Robert P. Turner 243

Appendix 245

Notes 261

Recommended Reading 293

### Foreword

ust over ten years ago I was in a very tight spot. I had to take an all-day written exam in the neuroscience graduate program I was in. No one I knew had passed that exam, and those who had failed were basically kicked off the program. It seemed clear to me there was a conspiracy to force me off the program, due to a series of previous events.

Studying the vast amount of information was not going well for me—I was very frustrated and losing hope. I could not sleep well. I was in this state of mind when, one night about 2:00 a.m., I was flipping through TV channels and came across Dr. Leaf being interviewed on a talk show. What caught my attention was the eloquence with which she was able to explain how the brain works in practical terms. I was a neuroscience student and already a medical doctor, and what she said made sense to me. When I found out from her website she had developed a process that had helped many thousands of students around the world excel in their studies, hope started to fill my heart. I dared to ask—Could I possibly pass the impassable? As I began to use the Switch On Your Brain 5-Step Learning Process and its tool, the Metacog, from what I could glean from her website and her book (which I later ordered from South Africa), I knew the answer to my question was a resounding yes!

After passing the exam by using her methods, and leaving that program with a master's in neuroscience, I have collaborated with Dr. Leaf ever since.

Dr. Leaf has written some great books over the years; however, I must confess, this is my favorite for many reasons. First, it was the material in this book that saved my academic career. Second, I have taught students from high school to graduate school using the principles in this book and have seen their academic and emotional lives change. Third, the principles in this book have helped my own family. And finally, this is my favorite Caroline Leaf book because of highly emotional reasons that go way back to 1976, when I was about twelve years old. That was the year of the Soweto school riots in South Africa, an event that shocked the world. I looked with horror at pictures of children carrying their dead and injured friends from the line of fire. Years later Dr. Caroline Leaf worked for twenty-plus years in the townships, including Soweto, and dramatically changed hundreds of schools and hundreds of thousands of students through the principles, processes, and techniques explained in this book.

In this book, Dr. Leaf lays out a roadmap to success in our schools and colleges, the workplace, and our personal lives. I suggest you read the book in the order she has laid out, because each principle and process builds on the previous one. There is no quick fix or shortcut. I encourage you, dear reader, to stay the course—I believe the journey will be well worth it, not just for you but for subsequent generations as well.

There are profound changes taking place in classrooms, work-places, and businesses around the world. Information is increasing at an exponential rate; however, the management of information has not kept pace. Information overload is not just negatively affecting our effectiveness but out mental health as well. I believe this book offers a timely solution to the problem.

Peter Amua-Quarshie, MD, MPH, MS, assistant professor of basic medical sciences

## Prologue

E veryone seems to be talking about mindfulness and taking the time to invest in yourself. But how do you really make your mind work for you? How do you use your mind to shape your life? How do you "invest" in yourself, creating a lifestyle that promotes both brain and body health? How do you go beyond awareness of, calming down, and acknowledging feelings, thoughts, and bodily sensations in the present moment to making sustainable, long-lasting changes? You are the "captain of your soul," after all!

It is easy to say you want to take care of yourself, but how do you take care of the mind, which takes care of everything else? The answer is not some pill, diet fad, magic number, Instagram account with over a million followers, or some quick-fix memory program. We all have significant resources at our fingertips. Our minds are incredibly powerful—we can use our thoughts to improve our overall intellect, cognitive performance, and mental and physical well-being. Harnessing these natural resources will give you power over your present, depth and context to your past, and anticipation for the future.

How you *understand and use* your mind is predictive of how successful you will be. We all think, feel, and choose in unique ways;

we all define our own meaningful success. This book is all about helping you get to that place where you succeed in all these key areas and make that switch to a life that is well-lived and filled with *meaningful* success. This book is about mental self-care. It takes you beyond mindfulness into a lifestyle of cognitive transformation that is both sustainable and organic—suited to your *Perfect You*.<sup>1</sup>

Mental self-care is integrally interwoven into a life of meaning, which naturally evolves into success in school, work, and every other area of your life. It is the key to finding your vocation: what gets you out of bed in the morning, and every morning to come. You can only be you, and who you are is brilliant, exciting, and inspiring.

Indeed, many years of research and many thousands of people later, I am still taken aback by the power of our minds to

- · learn effectively
- change circumstances
- increase creativity
- improve memory and its functionality
- increase emotional control, allowing emotions and stress to work for you and not against you
- experience intellectual satisfaction

Whether you are at school and just want to learn how to learn, whether you are in corporate life and need to improve your memory and performance, whether you are a stay-at-home or working parent juggling professional and personal responsibilities, whether you feel your mind and memory are not functioning as they should—you need this book because you are a thinking, learning being. You are always thinking and learning, every moment of every day. The questions we need to ask, then, are: What should I think and learn? How should I think and learn?

Are you thinking and learning to succeed?

In this book, I will provide you with three practical, scientific mental self-care tools to help you develop successful thinking and learning habits and achieve sustainable, long-lasting change in your life. I have researched, developed, and presented these three tools over thirty years to hundreds of thousands of people around the world and have been amazed at the results:

- The Mindset Guide—a practical guide that will give you insight into the power of how mindsets can change your brain and develop cognitive resilience, which is essential to success.
- *The Gift Profile*—a tool to find your customized thinking—the unique way you process information to understand how you think. Understanding how you think will activate the power of mindsets, turning them from being "nice to know about" into real, driving forces of change in your life. Stop talking and start doing.
- The Switch On Your Brain 5-Step Learning Process—a technique to build memory and learn successfully, based on how the mind processes information through the brain. The brain is designed to grow constantly, and the power of mindsets can really only energize sustainable, successful change when we think in our customized ways and build useful memory.

Mindsets contain power; customized thinking activates this power; the five-step process builds this power into long-term sustainable change. So, these powerful tools can help you improve your memory, learning, cognitive and intellectual performance, work performance, physical performance, relationships, and emotional health.

You will shift your life from survival mode to success mode!

## Acknowledgments

hen I wrote the first draft of this book and gave it to my team, waxing on excitedly about how "Microtubules and tubulin as neurobiological quantum computers explain how, in my Geodesic Information Processing Model (the theory and research I developed thirty years ago), memory is essentially seen as part of the cognitive process, where the new descriptive systems are reconceptualized or redesigned," they politely looked at each other and then me, and said, "No one except you and your academic colleagues are going to read that." And this was six weeks before the manuscript due date.

What happened next was an amazing experience and ended up producing my best work—this book, the seventeenth book I have written.

Dominique, one of my team (and my second daughter, a Pepperdine graduate with experience working in Hollywood), sat me down and said very directly, "Mom, what are you trying to say? I have grown up with your scientific thinking and learning methods and they work; they are revolutionary. You are a mind specialist, but what you have just explained is too complex." And so began a day-long discussion with many notes being written as Dominique,

with insightful brilliance, drew the best out of me, and six weeks later my manuscript was transformed into something even my four children (and greatest and most honest critics) loved!

And then my eldest daughter, Jessica, a master's student in the history of theology, stepped in to perform her exceptional and powerful editing magic, and the end result—well, even I want to read it! Thank you, my girls, for your beyond-phenomenal support and genius.

By this stage, this book had become a family affair because my four children were brought up living and using the principles and techniques you will read about in this book. My son, Jeffrey, who is an English major at UCLA, weighed in with some excellent ideas and helped with the title; my youngest daughter, Alexy, who is studying human biology and society at UCLA, offered pearls of wisdom about what her friends and classmates would need from a book like this, and my exceptional and outstanding husband, Mac, my cheerleader and greatest fan, read every word with the marvelous acumen he brings from all his years of being in the corporate environment.

I tell you all of this for the following reason: this book is a family affair, and you are part of the family now because you are reading this book. We are a community wired for love to think, learn, and succeed in school, work, and life—and we help each other achieve this.

As I weave science and life concepts together in this book, I draw on my research and extensive clinical, educational, and corporate experience—and I therefore also want to acknowledge my professors and mentors, especially Prof. Brenda Louw, who honed my scientific and research skills and has been a friend for thirty years. I also acknowledge each and every patient, client, and person I have ever worked with, and everyone who has read my materials, seen me at conferences, or watched and listened to me on TV, YouTube, and my podcasts. Your feedback is invaluable, because you are part of this family as well, and you have helped me understand and work to refine the concepts and techniques I teach in this book.

#### Acknowledgments



I also acknowledge the Baker team, who are so integral to the success of disseminating my books to the world. Chad, Mark, Karen, Patti, Lindsey, Erin, Colette, Dave, and the rest of the team: I acknowledge your expertise, professionalism, and guidance over all these years of working together, and I am excited about the future!

## Introduction

Are You Succeeding or Just Surviving?

Today, most people can access vast amounts of information, yet few people know how to process this information and use it to be successful at school, work, and life. There is an everincreasing gap between the "what" (information) and the "how" (the management of information). Our ability to process and understand information has been both encouraged and challenged by the technological revolution. We now have the world at our fingertips, yet, paradoxically, more and more of us live solitary, futile lives. As a result, problems in schools, universities, corporations, institutions, and personal lives abound as we lose sight of the power of mindsets, how to think, and how to learn. This is a global "mental health" issue!

Learning difficulties, inept socialization, mental ill-health, and loneliness, which is purported to be nearing epidemic proportions globally and causing more deaths annually than obesity,¹ compel us to reevaluate our thinking skills and rediscover the notion of community wisdom and the purpose of learning, as opposed to merely gaining pieces of random information to get an A that will make our parents proud or give us a hollow sense of self-worth.

A 140-character Twitter post, for instance, can consume inordinate amounts of time, yet no deep thinking ensues: no true satisfaction of mind is attained. Do we understand the damage this is doing? Can we counter it?

When we gather information like puzzle pieces without putting the puzzle together, intellectual growth is stifled. This is a crisis of quantity over quality, and the consequences are frighteningly evident in society. The developed world currently faces a *purported* ADHD epidemic,<sup>2</sup> for instance, where thousands of people, young and old, struggle to concentrate, to learn, to remember, and to think deeply. Thousands of individuals of all ages are being incorrectly labeled as biologically wanting and are medicated with brain damaging substances.<sup>3</sup> Rather than asking what is wrong with our society and the kind of thinking it promotes, we place the blame squarely on an individual's shoulders—or more to the point, their brain—divorcing him or her from the context of daily life.

Indeed, today we are quick to label issues as a disease or disorder rather than applying wisdom and examining what is actually happening in our societies, from the big picture to the detail.<sup>4</sup> In such an environment, it is easy to fear the perils of automation and artificial intelligence (AI), which are no longer merely the concern of Silicon Valley trend watchers—even scholars at Oxford University are making dire predictions.<sup>5</sup> Yet according to a growing body of research, we are asking the wrong questions. The problem is not so much about automation taking over our jobs (and our minds) but rather automation (including seeing humans as biological automatons, or *dehumanization*) changing how we think—and obviously, not always for the better.<sup>6</sup>

How is the technological revolution affecting our ability to think, learn, socialize, and manage the normal day-to-day life of being human? Indeed, what actually constitutes "work" in this day and age? Is the way we're working, working? What are we learning? What is the point of education? Is our thinking changing?

For example, using digital platforms such as tablets and laptops for reading may make us more inclined to focus on concrete details rather than interpreting information more abstractly.<sup>7</sup> This affects reading comprehension and problem-solving.

According to the World Economic Forum, in a 2013 survey of twelve thousand professionals by the *Harvard Business Review*, around 50 percent said they felt their job had no "meaning and significance." What makes knowledge significant? What makes work a vocation? Why do we generally ask people *what* they do but not *why* they do it? How do we get from A, knowledge, to B, significance? Although such questions may seem daunting, compelling us to find the needle of wisdom in a haystack of information, we ask these questions because we are human.

The point of thinking, learning, education, technology, medicine, and philosophy should be to build a better world, with connectedness and humanness as its core fundamental purpose. As journalist Rutger Bregman so eloquently said in his TED talk, "I believe in a future where the point of education is not to prepare you for another useless job but for a life well lived." This is *mental self-care*—a life well-lived, a life of success. The quest for the "good life" is a quest humans have undertaken for millennia. Can you honestly say you have no desire to find out what the "good life" means for you?

We need to recognize that neither society nor our brains are the only factors in determining what we do with our lives. We need to also recognize that our *own* thoughts can hinder our ability to think, learn, and succeed beyond the limits of any society. Have you ever scrolled through Instagram, paralyzed by the feeling that your life somehow doesn't "measure up"? Have you ever felt swamped at work, a crazy "devil wears Prada" boss shouting down at you in an endless, meaningless cycle, because you felt that was the kind of job a responsible adult had to have, that this was what you were supposed to do? Have you ever felt lost preparing for an exam you knew you were going to fail? Sometimes we can be our

own worst enemy! Do you just feel like every day you are being hit by something else you need to deal with?

You may feel you don't have any power over your life or circumstances, but you do! Your ability to think, feel, and choose is innately powerful and resilient—you have a mind that is more potent than all the smartphones on the planet combined! You *can* move from survival to success—and it all begins in your mind. In recognizing both the impact of your sociocultural context and your own thoughts, you can redefine your past, reimagine your present, and realize your future.

#### Neurocentricity and Neuromyths: Incorrect Solutions

We need to get out of the laboratory and off social media and realize we live in dynamic, complex, evolving societies—societies that need each one of us and what we each bring to the table. It is time to introduce the notion of *lifestyle* into the world of education, work, and life. We need to acknowledge the unique nature of thinking and learning within and between specific contexts and cultures—among both communities and individuals.

In recent years, in an attempt to address these modern challenges to thinking and learning, neuroscience has become very popular. It is almost as though adding the prefix "neuro," as in neuroeducation, neuroleadership, neurospirituality, and so on, gives the method, course, program, or book more clout, thereby increasing its credibility. Consequently, several "neuromyths" have arisen out of this neurocentric approach, stifling instead of enhancing human creativity and imagination. A myth satisfies the desire for quick, unequivocal, and simple explanations, and has the potential for the genesis of false ideas and faulty interpretations, which are used and abused by mass media, whose influence in forming and perpetuating opinions is critical.

Reducing the complex nature of humanity to seemingly simplistic neurobiological explanations, in the attempt to address the

needs of society at large, is such an example and is not a solution. This type of thinking leads to misperceptions, and thus mismanagement, of learning and education. Furthermore, we ought to be concerned with how we think on an individual, national, and international level, because slick marketing and politicians are able to manipulate an ignorant populace through myths, thereby manipulating the backbone of a democratic system of government.

But what are "neuromyths" specifically? They are common and damaging misconceptions about the nature of brain research, which relate to and shape our understanding of learning, education, work, science, and life. Researchers have surveyed educators, the general public, and people who have completed neuroscience courses to assess their belief in neuromyths. 11 Their research revealed that neuromyth beliefs are remarkably prevalent among the general public, educators, and even neuroscientists (training in neuroscience does not necessarily translate to psychology or education!), hence the potential for interpretive errors to creep in, doing more harm than good. 12 For example, many neuromyths mistakenly imply that a single factor is responsible for a given outcome when learning. However, what these approaches reflect is a gross underestimation of the complexity of human behavior, especially the cognitive and metacognitive skills of attention, reasoning, memory, and learning—which drive the processes of life. 13

Interestingly, the most commonly endorsed myth from this survey was that individuals learn better when they receive information in their preferred learning style. In chapters 17 and 18, I explain in depth why and how this is wrong, providing a more scientific and logical explanation for how we as individuals uniquely think in our own customized ways. I have been teaching and researching on this for thirty years.

Science, of course, advances through trial and error. A theory is constructed; new phenomena confirm, modify, or refute this theory. Unfortunately, the "messy" advance of science is the only one possible, and invalidated hypotheses always have the potential to turn

into myths. Although these beliefs are subsequently demolished by the social process of science, they still have the potential to be widely believed and relayed, and even used by various corporate entities and institutions to promote a specific worldview or agenda.

I have been coming up against these neuromyths all my working and research life. Two neuromyths, in particular, that I have spent three decades teaching against are the left-right brain theory and the learning styles theory, hence my joy in Kelly Macdonald and Lauren McGrath's neuromyth research. <sup>14</sup> Further common myths they identified were the Mozart effect, dyslexia, using ten percent of the brain, and how sugar affects attention. They also found that these "classic" neuromyths tend to cluster together, so if you believe one myth, you are more likely to believe others. I found this to be the case, as well, in my research with educators and mental health professionals. It was a challenge to change their neuromyth mindsets. <sup>15</sup>

Neuromyths about memory abound as well. Memory is not only the heart of learning but is also indispensable in every area of life. It has become the privileged subject of fantasies and false ideas. "Improve Your Memory!" "Increase Your Memory Capacity!" "How to Get an Exceptional Memory Fast!" These are typical examples of a number of advertising slogans for apps, books, pills, and programs. Memory, however, is complex, not fully understood, and requires intensive focus and understanding. Long-term memory and habit formation take time and hard work to develop—there is no quick fix or simple solution when it comes to building memory.

Unfortunately, commercial, computer-based memory training programs are based on this neurocentric approach. These programs claim to benefit those suffering from purported ADHD, dyslexia, language disorders, poor academic performance, the dementias, mental ill-health, and many other issues. Some claim to even boost IQ or EQ scores. <sup>16</sup> These programs are used around the world in educational institutions and clinics, and most are digital platforms

that involve tasks in which participants are given memory tests designed to be challenging.

However, research shows that the short-term memory and sensory skills developed in these so-called brain games do not necessarily develop deep thinking or meaningful cognitive skills that change behavior in ways that lead to success.<sup>17</sup> These games do not improve the kind of intelligence that helps people intellectualize, reason, solve problems, or make wise choices. In contrast, mental training via deep thinking and understanding to build memory and learn—as put forward in my techniques in this book—increases the numbers of neurons that *survive*, particularly when the training goals are challenging.<sup>18</sup> This survival of neurons with their dendrites (where memory is actually stored) means long-term, useful, and meaningful memories are formed.

In fact, according to a study published by the American Psychological Association (APA), working memory training from these brain games is unlikely to be an effective treatment for children suffering from learning disorders. Likewise, memory training tasks appear to have limited effect on healthy adults and children looking to do better in school or improve their intellectual and cognitive skills. Do

Many programs bring rote memory more into play than comprehension—at their peril. We are not designed to remember everything and anything. We are designed to remember what we *need* to succeed. This requires comprehension and deep, focused understanding. We need to learn *what* to learn and *how* to learn.

I will explain how to build meaningful memories in chapter 20, memories that not only increase intelligence but enhance brain health and reflect the complexity of the thinking process.<sup>21</sup> There are a great number of helpful techniques to improve memory, but they act on a particular type of memory only, whether it is mnemonics, repetitions of the same stimulus, and so on. I prefer to focus on teaching you how to build memory that is *useful*, significant, and able to help you succeed and thrive in school,

the workplace, and life. Like my patients, once you learn how to learn using your mind, you will notice a significant increase in your ability to resolve problems and improve cognitive flexibility in *addition* to building meaningful memory.

A growing body of evidence shows how our thought lives have incredible power over our intellectual, emotional, cognitive, and physical well-being. Our thoughts can either limit us to what we believe we can do or free us to develop abilities well beyond our expectations or the expectations of others. When we choose a mindset that extends our abilities rather than limits them, we will experience greater intellectual satisfaction, emotional control, and mental and physical health.

But how do we do this? How can we harness the power of our thoughts to think deeply, learn powerfully, and deal with the problems of the fast-paced digital age in order to lead lives filled with meaning? How do we achieve success? For over three decades, I have worked with thousands of families, children, teenagers, and adults diagnosed with ADHD, autism, dementias, and other learning and emotional difficulties, teaching them how to resolve their challenges and improve their thinking. My experience, both professionally and personally, as well as the testimonies from individuals who have watched my TV shows<sup>22</sup> and read my other books, reveal that, if you teach people how to think deeply, they can do anything they put their minds to. They can learn *how* to learn.

Regardless of what anyone has told you, you can learn. You can succeed at life. When you learn how to learn, exploring, understanding, and mastering the art of mental self-care, you can go beyond mindfulness, developing a whole mind lifestyle that allows you to transform your neighborhood, your community, your nation, and your world.

#### SECTION ONE

## The Mindset Guide

#### ONE

# Thinking and Learning to Succeed

mindset is an attitude, or a cluster of thoughts with attached information and emotions that generate a particular perception. They shape how you see and interact with the world. They can catapult you forward, allowing you to achieve your dreams, or put you in reverse drive if you are not careful. A mindset is therefore a significant mental resource and source of power. Your mindsets set your expectation levels, which will either be positive or negative.

Every moment of every day, your brain and body are physically reacting and changing in response to the thoughts that run through your mind—your mindsets add "flavor" to your thoughts, making your brain and body work for you or against you. And because you control your mindsets—they are not some preprogrammed function—it's you that is actually making your brain and body work for you. Understanding how mindsets form and how they change your thinking is a practical and helpful way to understand the power of your mind to change your brain. Mindsets help you see the power of your perceptions while optimizing your thought life by generating the correct perceptions, revealing your inner

strength and resilience. The correct mindsets are integral to succeeding in school, work, and life.

Your brain responds to your life choices—which are influenced by your mindsets. You are not controlled by your biology, no matter how emotionally flat or chaotic your mind feels at any given moment in time. Just *thinking* about something can cause your brain to change through the waves of energy that are generated, on a structural level through genetic expression and on a chemical level through the release of neurotransmitters. The power of the mind to change the brain is incredibly exciting and hopeful!

Our thoughts can improve our peace, health, vision, fitness, strength, and much more.<sup>2</sup> The ability to think, feel, and choose and build thoughts into mindsets is one of the most powerful things in the universe, because this power is the source of all human creativity and imagination. As scientist Lynne McTaggart notes, "a thought is not only a thing; a thought is a thing that influences other things." Where your mind goes, your life follows.

Research, as well as common sense, shows that believing you will succeed is a precursor to success. Conversely, thinking that you are limited is itself a limiting factor—a nocebo effect. We can *choose* to adopt a mindset that improves our creativity and functionality in general, or we can choose to adopt an attitude that constrains us.

The truth is, we don't have to learn to think outside the box. We have to recognize that the "box" is a figment of our imagination—we are as intelligent as we want to be. The purpose of this book is to help you discover how unlimited your ability to think truly is. You *can* design and sculpt your brain with your thoughts.

#### What Happens When You Think

Think of your mind as the movement of information as energy through your nervous system. Each thought has quantum energy and electrochemical and electromagnetic signals, which flow throughout your brain and body largely below the level of awareness in your nonconscious mind (see chapter 21 for more on this). Just thinking about a loved one, for example, can cause positive structural changes in the caudate nucleus of the brain, which is closely linked to feelings of reward and happiness. Likewise, healthy electromagnetic signals and quantum fields fire up across the entire brain and body in response to a good attitude, giving you strength to face the day.

The converse also applies. Stress, which is actually good for you, can become incredibly toxic, depending on your perception of the situation. The other day, a friend was telling me how just driving past her previous workplace brought back significant physical heart pain, which she used to experience daily in the toxic work environment. While still there, this friend was considering seeing a cardiac specialist due to the severity of her toxic stress-related symptoms, but they disappeared once she resigned. The treatment in this case wasn't medication or potential surgery, it was the mental self-care decision to get another job!

Research in quantum physics and the mind-body connection shows the signals of the mind, which are considered nonphysical light waves or packets of energy, form 90 to 99 percent of who we are. These waves are our dominant reality; we cannot ignore the intangible, powerful mind element of who we are as humans.9 As thoughts travel through our brains at quantum speeds, neurons fire together in distinctive ways based on the specific information being handled, and those patterns of neural activity transform our neural structure (you will learn more about this in chapter 22). Essentially, the way you think, through the mindsets you adopt, will influence the neural correlates in your brain, thereby influencing your words and actions. In turn, these words and actions influence the brain, and a feedback loop is established based on this mindset. A feedback loop can be changed any time you desire through your *choice* to change your mindset. An interesting study, for example, indicated that instead of trying to calm down to cope with preperformance anxiety such as meeting with a boss, public speaking, or writing a math exam, reconceptualizing the anxiety as *excitement* while taking deep slow breaths (which dissipates cortisol) helped people cope better. Choosing to shift from a threat mindset to an opportunity mindset changes functioning.<sup>10</sup>

You have so much power in you to thrive instead of strive. When people consciously choose to practice operating in a mindset of gratitude, for instance, they get a surge of rewarding neurotransmitters such as dopamine and experience a general sense of being alert and a brightening of the mind. The path to success starts with our thinking, and our brain will respond accordingly.

If, however, you bombard the 75 to 100 trillion cells of your brain and body with toxic signals from negative thoughts, you negatively influence the quantum actions and genetic expression in your cells, *training* them to reproduce negativity in the future. Thinking in this way, you develop a negative mindset that can wreak havoc in your mind, brain, and body. These negative mindsets are not, however, your destiny. You can change any mindset by transforming the way you think, feel, and choose. You can choose to bombard the cells of your body with positivity, honing in on your natural proclivity toward love. <sup>11</sup> We are wired with an optimism bias.

As long as you can breathe, your brain can make new neurons in a process called neurogenesis. <sup>12</sup> Stem cells persist in the adult brain and generate new neurons throughout life; thousands of new cells are created on a daily basis. These thousands of new neurons that are added into the brain each day do not survive. However, one of the most effective ways to keep these cells from dying (which increases toxic levels in your brain and body) is by thinking and learning properly. <sup>13</sup> This is exactly what I will be teaching you to do in section 3 of this book with the Switch On Your Brain 5-Step Learning Process. Different signals promote stem cells to form neurons that migrate to their place of action. <sup>14</sup> You also have glial cells in your brain that produce more cells on a daily basis. <sup>15</sup> These cells are essentially "housekeepers" and are also involved in cognition.

In fact, you have the power to change toxic mindsets with your customized thinking about every ten seconds! Your brain is finely attuned to your mind; it is designed to respond to your conscious thinking (see chapter 21).

This is truly what it means to renew and redesign your mind and bring all rogue thoughts into captivity. This also means you *can* redesign your brain with your mindset by choosing to be more optimistic and adopting healthy thinking practices such as the mental self-care techniques you will learn about in this book. This process of reappraising and realigning your mindsets back to your natural wired-for-love design is integral to the life well-lived. It is a way of deliberately and intentionally paying attention to what you think, say, and do in a self-reflective and self-regulatory way. And it all hinges on what you *choose* to think about.

#### Genetic Expression and Mindful Thinking

Your thinking, feeling, and choosing impacts your genetic expression. You switch genes on and off with every thought you have, and every thought you have is a response to the way you *see* and perceive your life experiences. <sup>16</sup> Research actually shows that only about 5 percent of genetic mutations directly cause health issues. <sup>17</sup> Roughly 95 percent of genes are influenced by life factors and lifestyle choices. <sup>18</sup> Your genetic activity is largely determined by your thoughts, attitudes, and perceptions, which collectively form your mindset.

So how do you control your genetic expression? The science of epigenetics shows us that our thoughts control our biology, and perceptions are made of our thoughts, which create our mindsets. Our lifestyle choices can actually be traced to the genetic level. What you are thinking at any one moment becomes vitally important because your thoughts determine the signals your genes receive. By changing your thoughts, you change your mindsets, and, in turn, you can influence and shape your own

genetic readout. Research even shows that your mindsets can impact how you age!<sup>20</sup>

The more you learn to think in your unique and powerful customized way, which you will read about in section 2, the more mindful, self-reflective, and self-regulating you will become in your thinking; you will develop successful mindsets. The healthier the input signal, the healthier the output of your genetic expression, and the healthier and more successful you will be.

I cannot stress enough the power of learning to control and activate the power of mindsets to influence life outcomes. During my academic research and in my clinical practice, I observed over and over again just how extremely important positive mental self-care was in succeeding versus surviving, because of the impact of thinking on our memory and our mental and physical health.

Of course, we are all different. We all think differently, and how we think differently influences the effectiveness of building useful, sustainable memory. And when we learn how we, as unique individuals, think and learn, we have a sense of purpose, which according to recent research increases the tendency to healthier living and therefore longevity. Thus, through thinking in our wired-for-love mode, <sup>21</sup> partnered with healthy eating, sleeping, and exercising habits, <sup>22</sup> we can develop deep-rooted memories while reducing the risk of mental ill-health, educational problems, and degenerative diseases. Strong evidence is available suggesting controlling one's inner thought life and detoxing the mind is a preventative against Alzheimer's. <sup>23</sup> This is real mental self-care that leads to success. (For more on detoxing the mind, see my app at drleaf.com.)

Understanding your "gift," your customized thinking, and how to use the Switch On Your Brain 5-Step Learning Process will activate and sustain the power of positive mindsets, which, in turn, will give you direct access to influencing your genetic activity in a beneficial way. As you begin to understand and realize how much power you have in your mind, you will start using your thoughts to work *for* you instead of *against* you.

#### Wired for Love

We are wired to think positively with optimism.<sup>24</sup> Your body and brain are finely attuned to your uniqueness and the positivity of your mind. You are essentially wired for love, right down to the genetic level; the more you improve your mental self-care habits, the more your brain and body will respond in positive ways.<sup>25</sup>

Yet, when you have a negative mindset, which is out of sync with your wired-for-love design, you damage the brain and body. You begin to function at a compromised level, which affects your mental and physical health. Fortunately, you can combat this negative spiral when you choose to change your mindset, healing the damage and improving the way you function. You can rewrite the story of your past!<sup>26</sup>

Cultivating healthy, successful mindsets is the key ingredient to achieving a thriving lifestyle. We all have significant internal resources to think, learn, and succeed at life, but these often go unused or are misused. Through the knowledge you gain from this book, you will learn how to harness the power of your mind for success.

However, before we explore what these successful mindsets look like, we have to first understand what it means to be "wired for love." There isn't a structure, tissue, cell, protein, molecule, atom, or quantum wave that is designed for toxic thinking; we are wired for love and we learn to fear.<sup>27</sup>

Does that mean that all types of fear are inherently bad? Not necessarily. We love life, for example, so we fear things that can take life away from us, and thus we avoid these things, such as running in front of a moving car or traveling through dangerous areas late at night. Similarly, we experience grief because we love. *Love* is an umbrella term for all the characteristics we value as human beings, such as gratitude, joy, peace, patience, kindness, positivity, happiness, and so on. I therefore use "love mindsets" to refer to all types of mindsets that help us prosper as we go about our daily activities. When we operate in love-based mindsets, we

enhance our brain, body, mind, and spiritual health.<sup>28</sup> Love is about succeeding, not merely surviving. A life of love is "the good life."

Fear, on the other hand, is distorted love. It is the opposite of love, just as ingratitude is the opposite of gratitude and cruelty is the opposite of kindness. Fear eats away at us, crippling our ability to live the kind of life we want to live. A fearful mindset focuses on the absence of love; the fear of failure, for example, stifles creativity and the imagination, hindering an individual's ability to pursue his or her goals and dreams.

Our mindsets set the tone for how we approach the events and circumstances of life, which are often out of our control. We are designed to react in a love mindset, which doesn't always mean things are going to be easy but does mean we can shift into success mode and manage a situation more effectively.

Brain plasticity means the changes that occur in the brain as a result of thinking and lifestyle choices. Brain plasticity allows us to master simple skills or sports and also allows us to train ourselves to be more positive, whether it is raining or the sun is shining, literally and figuratively. I did some of the first neuroplasticity research back in the eighties, showing how intentional, deliberate thinking changes intellectual, cognitive, emotional, social, and academic performance.<sup>29</sup> In my practical clinical experience, the power of neuroplasticity continued to play out with the people I worked with—you can change your brain with your mind, and, by doing so, change your life.

We *can* retrain the brain to focus on the good things in life. We step into our "normal" when we do this, because we are wired for love. Having an "attitude of gratitude," so to speak, enables us to see more possibilities, to feel more energy, and to succeed at higher levels in our lives.

I emphasize *retraining* the brain as opposed to training the brain. It is incorrect to assume that the brain has a negative bias and that we have to fight off the brain's natural tendency to scan for and spot the undesirable. This kind of negative mindset will

actually work against the natural optimism bias of brain function and upset thinking patterns!

As I mentioned above, the brain is wired for the positive, which is also called the optimism bias, or what I call the wired-for-love bias. Occasionally, you may feel like the negative dominates your life, but take a moment to analyze your thoughts. What do you think about the most? Whatever you think about the most will grow; if you are thinking about something daily, within approximately two months your brain has changed to accommodate this pattern of thought (see more on this in chapter 21, on memory). You plant these thoughts deep into your nonconscious mind, allowing them free rein to shape your mindset, which in turn affects your future thoughts, words, and actions. We merge with our environments; whatever we think about the most will have the most energy and will dominate our thinking, the good and the bad. In section 3 of this book I show how this happens, and how just seven minutes a day of directed, intentional thinking for sixty-three days can renew your thinking!

Indeed, we can harness the brain's plasticity by using our mind to train our brain to build normal positive patterns. This is called *automatization* and involves the reconceptualization of memory—that is the deliberate, intentional, mindful, and intellectual redesigning of thoughts (and thus the structure of the brain) over time.

Automatization is not incredibly difficult, but it does require time, discipline, and effort. If asked, I am certain you would be able to point out your positive and negative thinking habits, your love and fear mindsets. You have already been practicing building mindsets, albeit without consciously knowing the technique! The conscious control of this process can take you to a whole new level of life, allowing you to function successfully on both a personal and professional level. You will learn to develop not only a positive outlook but also a sense of mastery and intellectual satisfaction that allows you to be more creative. It's time to start harnessing your powerful mind to change your life!