

Praise for *Rewire Your Brain for Love*

“With entertaining humor and enlightening clarity, Dr. Lucas blends cutting-edge discoveries in neurobiology and psychology with time-honored practices from ancient wisdom traditions to help us navigate the challenges of intimate relationships. Full of real-life examples and practical tools, this book is a delightful must-read for anyone wanting to get along better with other people.”

— **Ronald D. Siegel, PsyD**, Assistant Clinical Professor of Psychology, Harvard Medical School;
author of *The Mindfulness Solution*

*“**Rewire Your Brain for Love** is delightfully engaging and easy to read. Everyone will find something life-enhancing inside these pages.”*

— **Christiane Northrup, MD**, author of the *New York Times* bestsellers *Women’s Bodies, Women’s Wisdom* and *The Wisdom of Menopause*

“Honest, warmhearted, and funny. Marsha Lucas explains neuroscience in plain English, so all of us can understand. She brings great clarity to the sometimes murky waters of romantic relationships and gives us a wonderful introduction to mindfulness meditation and its benefits.”

— **Sharon Salzberg**, author of *Real Happiness*

“Marsha Lucas takes the mystery out of two mysterious subjects —the inner workings of our brains and the successful pursuit of true love. She’s a wise and funny cupid, bringing together our hearts and minds as she explains amygdalas and anxiety, frontal lobes and commitment-phobes. She’s an excellent advocate for meditation, presenting its benefits in a unique, compelling way.”

— **Priscilla Warner**, author of *Learning to Breathe*

“Each of us has the potential to live with an open, loving heart. This book shows us how meditation awakens our capacity for increased presence, intimacy, and understanding in our relationships. With clarity and humor, Marsha Lucas gives us both the fascinating science behind this transformation, and the practices that make it possible.”

— **Tara Brach, PhD**, author of *Radical Acceptance*

*“With **Rewire Your Brain for Love**, Marsha Lucas has pulled off an achievement that is as valuable as it is rare: she synthesizes complex neurophysiological information about the brain’s role in relationships, in clear, reader-friendly ways; and combines this with effective tools and suggestions for beefing up the capacity for attachment. And there’s a bonus: she’s a really fine, witty, accessible writer. Anyone who struggles with garden-variety anxiety about love, all the way up to full-blown phobia, should read this book, more than once. And it should be dog-eared and well worn on every therapist’s reference shelf.”*

— **Belleruth Naparstek, LISW**, author of *Invisible Heroes* and creator of the Health Journeys guided imagery series

“Dr. Lucas shows readers how to use the power of neuroplasticity—the capacity of the mind to change the brain—to build up the ‘circuits’ of resilience, empathy, and assertiveness for relationships. Her voice is warm, funny, down-to-earth, practical, and so very helpful. This book is like having a best friend who is both savvy about the brain and a world-class therapist.”

— **Rick Hanson, PhD**, author of *Buddha’s Brain*

*“Marsha Lucas’s **Rewire Your Brain for Love** is a smart and reader-friendly guide for an exciting journey through our hearts and brains. Dr. Lucas skillfully interweaves her therapeutic and neuroscientific knowledge with personal wisdom into a rich, meaningful, and accessible tapestry that expands our self-awareness in the service of sustaining and deepening our relationships.”*

— **Louis Cozolino, PhD**, Professor of Psychology, Pepperdine University; author of *The Neuroscience of Human Relationships*

“Dr. Lucas provides an accessible and practical guide to help us bring alive the exciting intersection of mindfulness and neuroscience for healthier relationships and a better life.”

— **Elisha Goldstein, PhD** author of *The Now Effect* and co-author of *A Mindfulness-Based Stress Reduction Workbook*

“We live in a world of failed relationships and loss of love. Dr. Lucas has given us the science and clinical application of mindfulness meditation tools to help us heal ourselves, our relationships, and our world. We are all in need of this sage advice.”

— **Allan Warshowsky, MD, FACOG, ABIHM**, Director Emeritus of the American Board of Integrative Holistic Medicine

“You hold in your hands a unique piece of work. Marsha guides you carefully, to help you understand the unique benefits of mindfulness from the inside-out, and so helps to ignite or re-ignite your passion for the meditative practice. Better relationships lie at the heart of a life of health and well-being. Through reading this book, you learn to become an electrician of your own brain, and discover specific mind techniques that lead to a better relationship with both yourself and those close to you. A delight to read—highly recommended!”

— **Shamash Alidina**, author of *Mindfulness for Dummies* and *Relaxation for Dummies*

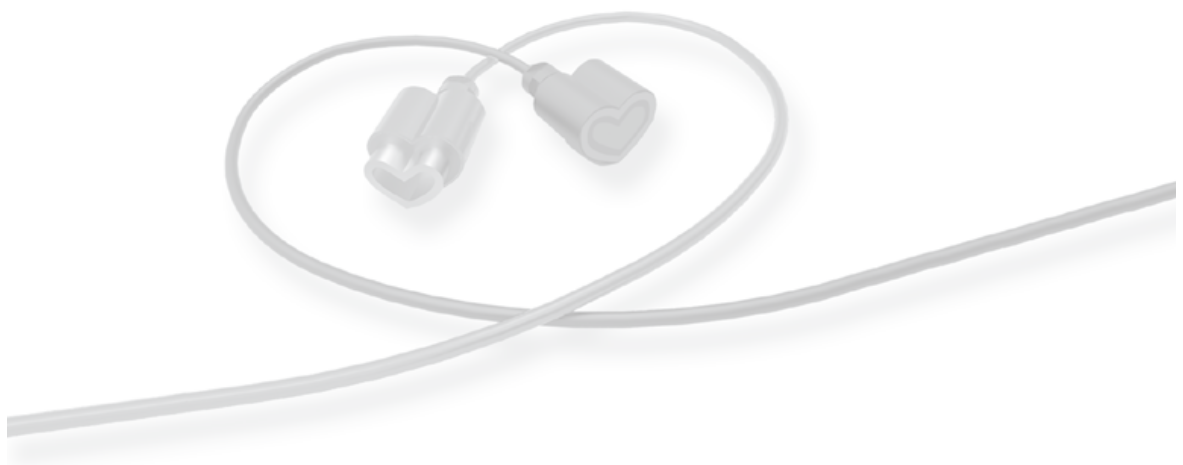
“This excellent book takes the reader on an exciting journey of self discovery and healing through the emerging field of neurobiology and mindfulness meditation. Dr. Lucas presents scientific concepts in an easily understood manner and goes on to assist the reader to learn meditation techniques that have demonstrated proven healing benefits for emotional, psychological, and physical problems as well as for those individuals who strive for optimal wellness. This book is a must-read for everyone.”

— **Leonard A. Wisneski, MD, FACP**, Professor at George Washington University, Georgetown University, University of Colorado; author of *The Scientific Basis of Integrative Medicine*

“Ever wondered why you get stuck in the same old relationship patterns? With no-nonsense wit and warmth, Marsha Lucas shows you what’s happening at brain level when habits form, persist, and most importantly, shift. Crucially, she also shows you how to apply this knowledge to transform your intimate connections—all with the simple practice of mindfulness. This book will bring joy not just to many readers, but to those who share their lives.”

— **Ed Halliwell**, co-author of *The Mindful Manifesto*

Rewire
Your.
Brain
for LOVE



Rewire Your. Brain for LOVE

Creating Vibrant Relationships Using
the Science of Mindfulness

Marsha Lucas, PhD



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Precautions have been taken to protect and disguise any confidential, personally identifiable information concerning patients discussed in this book.

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*For Duncan and Gabriel
and everyone who aspires to be
part of a more empathic world*

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INTRODUCTION

REWIRING YOUR BRAIN FOR LOVE

The Best Do-It-Yourself
Project You'll Ever Do

We live in a culture that holds tantalizing promise for a satisfying life with good friends and good relationships, yet the rate of depression, stress, overwork, and divorce—or simply choosing to veg out with the TV or Internet every night, instead of having real, satisfying relationships with real people—has literally reached pandemic proportions.

We're bombarded with helpful hints from relationship gurus on television and in magazines who promise they have the secret set of words and behaviors to make you happy: "simply follow these five simple rules!"

But you have (repeatedly) tried what they've suggested and you still aren't happy—and your relationships still don't cut it.

The pharmaceutical companies advertise to millions about curing depression and social anxiety with a little pill once a day. And yet the majority of people still suffer in their search for better relationships and more satisfying lives.

What's going on?

To answer this question, we turn to neuroscience: the way your brain is wired can either help you have happy, satisfying relationships or it can be a huge obstacle to healthy love.

So where does this wiring come from? Unfortunately, most of your brain's wiring for relationships was determined unbelievably early in your brain's development—before you were about two years old. (Your interactions as a baby have an enormous, lifelong influence on how your brain does relationships.)

The good news, though, is that you can rewire your brain for better relationships. You can change your old “relationship brain” neural pathways and develop new and improved ones using simple, 2,500-year-old mind-training techniques that are more precise than a neurosurgeon's blade, and without all the mess. The ancient practice of mindfulness meditation, as it turns out, produces real, measurable changes in the brain in key places so that deeper connections, better love, and healthier relationships can really take hold.

In as little as 20 minutes a day.

Whaddaya think? Are your relationships worth 20 minutes a day?

**OPEN MIND + WELL-WIRED BRAIN =
NEW FRONTIERS**

Something to let you know up front: I get excited by neuroscience. A little strange, I know, but it'll come in extremely handy as we go along. My hope is that you'll get a little excited by it, too, once you realize what a powerful tool it is.

As recently as ten years ago, neuroscience maintained an iron-clad rule about neurons in the brain: once you reached adulthood, you couldn't grow any new brain cells—they only died off as the years went on. (Of course, you could accelerate the process of neuronal die-off, depending on what kind of damage you were doing through drug use, head injury, and so on.) This “rule” also meant that old connections within the brain—those neuronal pathways

that determine how you react—couldn't be replaced if they were damaged. It was all downhill after the brain “completed” its development at the golden age of 25. Yikes.

Well, we found out pretty recently that that idea is wrong. Really wrong. We can, in fact, not only cause the neurons in our brains to change and to grow new connections and pathways, but we can produce *new* neurons, throughout our entire lives. It's called *neuroplasticity*, and it's the most radical finding in neuroscience since, well, the discovery that the brain wasn't just a cooling device for the body. (I'm not kidding: that idea goes back as far as the ancient Egyptians and went largely unchallenged for millennia.)

What does this mean for you and your relationships? If you can grow new connections and new neurons, your old, getting-in-your-way wiring can be redirected and/or overridden. *You can rebuild it.*

As a psychologist who has been working with patients for over 20 years, I find that radically exciting.

So how exactly do you change those structures and connections into supporters of happy relationships? Recent studies by leading neuroscientists and biobehaviorists—researchers from Harvard, UCLA, MIT, Princeton, Stanford, and Cambridge, to name a few—have shown that mindfulness practice promotes changes in your brain in areas and ways that promote healthier relationships with yourself and others.

The neurological changes seen in the brains of mindfulness meditators show up in how they feel, how they deal with their feelings, and how they do relationships. And it doesn't take years of practice—many beneficial effects are seen in the earliest stages of practice, in as little as a few weeks of practicing 20 minutes a day.

Can't do 20 minutes? That's perfectly okay; start with two.

Think you just can't do it at all?

About 95 percent of my patients thought the same thing. And nearly all of them found out that they could meditate—and much more easily than they thought, once they tried it with the kinds of knowledge and simple instruction you'll find in this book.

You don't have to become a monk or a vegetarian or spend hours contemplating your navel. You don't need to hum "Om" over and over, trying to get your brain to be still or empty.

What you do during mindfulness meditation is practice simply noticing your mind's busyness (a.k.a. your thoughts and feelings) and not getting all tangled up in it. You don't even have to sit while you do it (and you definitely don't have to sit like a pretzel). You can do walking meditation, eating meditation, lying-down meditation, or even washing-dishes meditation. With practice, you can meditate anywhere, during just about any activity.

I've been practicing psychotherapy for over 20 years, and I have always been deeply honored to help people as they dig in and do the often difficult work of creating better lives for themselves. I resisted becoming a physician/psychiatrist/neurologist because I knew early on that medication was not the only path to well-being. Since I began using mindfulness meditation with my patients, I have been privileged to witness some of the most amazing shifts and improvements. It has been the single most remarkable "ingredient" in therapy I've ever seen. We've known for a while from research that the most reliable predictive factor in psychotherapy outcome is the patient's sense of an authentic, attuned relationship with the therapist.¹ I believe that by adding mindfulness meditation, we're adding another authentic, attuned relationship for patients—the one *within themselves*.

By using simple mindfulness meditation, you can rewire your brain's relationship pathways—and change your life.

This book is about why and how to use mindfulness meditation as a simple, good-for-you approach to rewiring your brain for better, healthier, juicier romantic relationships.

THE SEVEN "HIGH-VOLTAGE" BENEFITS

Consider this: developmental psychologists talk about essential characteristics that are seen in people with healthy, attuned childhood relationships—characteristics that bode incredibly well

for these people's ability to have healthy relationships in adulthood.

And then this: *those same characteristics are seen in people who practice mindfulness*—plus bonus characteristics.

To top it all off: the latest scientific research has increasingly been showing that these characteristics are associated with areas of the brain that change as a result of mindfulness.

As I've worked with my patients and consulted with other psychotherapists, I've found that the most helpful way to think about these characteristics is to group them into a list of seven acquirable skills. These are skills you can develop and grow within yourself, within your brain—and they seem to be the most powerful in creating and sustaining a healthy and happy relationship:

1. *Management of your body's reactions*
2. *Regulation of your response to fear*
3. *Emotional resilience*
4. *Response flexibility*
5. *Insight (self-knowing)*
6. *Empathy and attunement—within yourself and with others*
7. *Perspective shift from “me” to “we”*

In the work I do with my patients, I've seen that the growth of these seven characteristics has such an important impact on interactions with others that I call them the “high-voltage” relationship benefits. We'll be exploring each of these in Part II of the book.

Daniel Siegel, MD, a Harvard-trained psychiatrist and an expert on childhood attachment was the person who first made me aware of the connection between these documented and compelling characteristics of well-being, seen in people who grew up with healthy, attuned attachments, and the brain structures and pathways shown to change with mindfulness practice. Since then, I've been seeing the results confirmed through my psychology

practice, in myself, and in the lives of my friends and colleagues. I want you to benefit as well.

THE WIRING DIAGRAM OF THIS BOOK

I've written this book in three parts. In each one, I'll teach you, in accessible, helpful ways, why your brain works the way it does when it comes to connections with others—and you'll get the information and tools to break free of old patterns and move into healthier, more vibrant relationships.

In Part I of the book (“Understanding Your Current Wiring Diagram: Please Read the Owner’s Manual *Before* Attempting Repairs”), you’ll learn first about how your brain got into the tough spot it’s in—how your earliest experiences with love, attachment, and relationships wired your brain for “how to do love.”

Once you know more about how you got your current wiring, I'll help you get familiar with some very basic neuroanatomy. (Don't panic! I've road-tested this brain lesson on scores of people whose eyes would typically glaze over at the first utterance of the word *neuroanatomy*, and they've all been happy to find out that it's not hard—or boring—after all.) It's important to know some basics about the brain's structure and connections in the way they affect relationships. That way, you can really understand what and where the miswirings are, how they play out in your relationship struggles, and what your new wiring plan needs to look like. I've seen time and again how much easier this little bit of knowledge makes it to let go of old, unhelpful ways of thinking about yourself and the relationship problems you've been trying to solve.

Part II (“Becoming Your Own Master Electrician: Essential Relationship Wiring Features and How to Power Them Up”) is where you'll roll up your sleeves and get wiring. And because I want you to get real, lasting benefits from what I've learned and written in the pages that follow, I strongly recommend that you start with Chapter 1 and experience the book in order. I know it might be tempting to pick and choose the chapters that you want to read

(and the ones you want to skip—or avoid), but the trek will yield much more benefit if you approach it one step at a time.

I've structured the book so that the benefits you gain through these practices work in a progression—each benefit is supported by the ones that come before it, and the ones that come later in the list keep the earlier ones strong. Like building a house, it works better if you start with the foundation and methodically work your way up. The chapters in Part II move from the bottom of your brain's wiring to the top—from your relationship with yourself toward your relationships with others.

For example, becoming better at being aware of and regulating your body's responses to the world “out there,” which is where Part II begins, gives you the foundation for what's next: getting a handle on the most relationship-derailing emotion of all—*fear*. Once fear isn't shorting out your relationship brain, you're ready to rock 'n' roll with increased resilience with all of your other emotions . . . which then affords you more room to choose from a wider range of healthier responses . . . and so on, through all of the high-voltage benefits.

At the end of each chapter in Part II (and at the end of Part III) is a mindfulness meditation/exercise. It'll probably serve you best to practice the meditation at the end of each chapter at least a few times before moving on to the next chapter. Along the way, you'll undoubtedly find some meditation practices that you like better than others—great! Feel free to bookmark those and return to them any time you want, but also be sure to keep moving forward and trying the ones that come next.

What do I mean by “practice”? I mean some meditating on a regular basis for a reasonable amount of time. The regular basis that's most helpful for most people is once a day; if you want to practice twice a day, go for it. As for what constitutes a reasonable amount of time, I recommend that you set aside 20 minutes to practice a given meditation. Longer is great, but not necessary. I'll say it over and over, though—if you can't do 20 minutes,

start with two. As a wise dental hygienist once told me, “Flossing once a week is better than not flossing at all.” The same goes for meditating.

You’ll also find some other exercises in the book that are helpful additions to the meditations. I invite you to at least try them and see if you find them useful.

All of that said, this is your book and, more important, your journey! I definitely understand about wanting to do it your own way or resisting a prescription (it’s my own first reflex in many situations). If you find yourself bumping up against some internal push-back—which might look like forgetting to meditate, skipping past a “useless” chapter, or losing the book—I invite you to take a little time to gently but persistently poke around at it: *Why might I be tempted to push back right here?* or *Why was it that when I got to this particular point in my progress, I started to lose my traction?*

In Part III (“You’ve Got the Power”), I’ll guide you through the maintenance of your new and improved wiring and how to handle obstacles that might come up as you live more fully in your brain and your relationships. I’ll also direct you to resources for learning more and getting support, including articles, books, and web-based resources.

Many of the people I’ve worked with said that they always knew meditation might be good for them, but either they never got around to trying it, or they practiced but never felt anything more than some healthy relaxation. After I worked with them for a while, though, they learned the things that you will know after reading this book—and they understood that meditation really could be beneficial. They understood what meditation was doing in tangible ways to change their brains—and to change their love lives. The vast majority of them found not only that it was more compelling to practice regularly, but that it was more helpful than they’d ever expected or experienced before.

Sara Lazar, PhD, a Harvard neuroscientist who studies the effects of mindfulness meditation on the brain, has said, “The thing that surprised me most about this research is how many senior practitioners and meditation teachers say that it motivates them

to practice during the times when their meditation seems to be going nowhere.” Meditators, she says, often tell her, “I used to think that I was wasting my time because my mind was all over the place. This helps to keep me on the cushion because I remember how significant these changes are.”² I’ve had the same experience myself—I was a meditation giver-upper until I discovered the neuroscience connection. When I hear similar reports from my patients, I’m thrilled.

As with anything worthwhile, rewiring your brain with mindfulness meditation takes practice and commitment. But the payoff, as you will see, is well worth the effort. One of the preeminent researchers in this field, Richard Davidson, PhD, has said that using mindfulness meditation to shift your brain’s emotional set point isn’t something that takes years—big benefits come at the beginning of practice. My deepest wish is for you to give this gift to yourself, and I’ve written this book to help you get there.

Well, I’m guessing that you’re eager (and maybe a little anxious) to get going. If you and I were sitting together, I’d probably look at you warmly, smile, take a breath, and say something like, “Take a breath.” (Profound, I know.) The next thing I’d say would be something like this: “You’ve decided to go on this mountain trek. It’s your trek, and you’re the expert about your mountain—even if you don’t know that yet. Think of me as a sherpa, one of those experienced Himalayan guides. While I’ve never explored *your* particular mountain, I have years of experience guiding people on their many and varied mountains. I also have some of the best tools and techniques to show you, and last but not least, I have the authentic and sincere desire to help you.”

Ultimately, it’s your journey. If you’re ready, let’s go.

PART I

Understanding
Your
Current
Wiring
Diagram

Please Read the Owner's
Manual *Before* Attempting Repairs

EARLY RELATIONSHIP EXPERIENCES

Attached at the ~~Hip~~ Hippocampus

When I was a kid, my mother tried to limit what I watched on TV, which now, as a parent myself, I appreciate. But there were shows she'd censor that made no sense—like *Marcus Welby, MD*, about a wise old family physician with a kindly bedside manner. To this day, I have no idea why she was so worried about such a benign TV show—except that my mother worried about everything, and what torqued her the most were relationships, including the one with me.

Her anxiety around being connected emotionally influenced the way my brain became wired for relationships far more than any TV show I could have watched.

And that's the bottom line.

Your first experiences with relationships—those you have with your parents—have a huge influence on how you deal with relationships throughout your life. The your-parents-to-you relationship covertly operates in important, behind-the-scenes ways in your later you-to-your-partner romantic relationships. The lessons of our primary childhood relationships run so deep and so strong—and often *waaaaay* outside our conscious awareness—that we all find it extraordinarily challenging to overcome them.

Louis Cozolino, PhD, is a clinical psychologist who studies and writes about neuroscience, especially about how our brains influence our relationships (and vice versa), and I appreciate his clear take on this: “Because the first few years of life are a period of exuberant brain development, early experiences have a disproportionate impact on the shaping of our neural systems, with lifelong consequences.”¹ The accumulated experiences of your relationship with your parents is like a powerful computer program that’s always running in the background in your brain, but the difference is that the “uninstall” feature is impossible to find.

This program—how it goes between our parents and us, and what we learn about relationships from them in early childhood—is, in psych-speak, *attachment*. For the vast majority of people, attachment styles fall into two broad categories: *secure* and *insecure*.

Slightly more than half of adults in the US (55 percent), according to research, fall into the “healthy” category, called a *secure* attachment style.² Our parents were able to regularly tune in to us, meeting our emotional needs on a consistent basis and giving us a sense of safety, security, and well-being. (Some of those 55-percenters may have what’s called “earned” secure attachment, through experiences after childhood—such as we’re working on in this book.)

But that means, of course, that the other 45 percent of us didn’t have a consistent, responsive secure-attachment harbor. As a result, we have an *insecure* style of attachment. We tend to have either an ambivalent/anxious feeling about seeking comfort or closeness (we want it, but we perceive it as risky) or a desire to minimize or avoid relationships altogether. We develop this style

as the best adaptation to our environment, in the same way that people who live in subarctic regions adapt by eating large quantities of fatty foods to produce extra body heat, wearing heavy clothing, and sleeping in a huddle.

Why is knowing about early attachment so important?

Because the style of attachment we develop in childhood is most often a lifetime deal. It drives and influences how we interact with others and how we see ourselves in relationships, and, as much as we might not like to believe this, it deeply influences the kinds of partners we attract and are attracted to. All too often, they end up being precisely what we *don't* need, despite our best efforts.

IT ISN'T ABOUT DICKENS

When I explain all of this to my patients, I almost invariably hear something like, “Don’t you think this is a bit over the top? Okay, based on how you look at it, I probably fall into the insecure category, but it’s not like my childhood was something out of *Oliver Twist*.”

I’m not talking about traumatic, awful childhoods and horrific, evil parents. And I’m definitely not jumping on top of the pile of mother-blaters and father-bashers who hold their parents responsible for everything that subsequently doesn’t go well in their own lives. But the fact is that, fairly often, ordinary, run-of-the-mill parent-child attachment simply falls short of what we need to create healthy, secure relationships later in our lives. (My husband and I have often thought about keeping a logbook of all of the times we mess up as parents, and then simply handing it to our kids when they’re grown, saying, “Here, this’ll give your therapist a head start.”)

Having an insecure attachment style isn’t the equivalent of being broken, deranged, wacko, or some other label that falls in the realm of “pathological,” but it does cause us quite a lot of pain, confusion, and unhappiness.

Consider Diane, an accomplished writer in her mid-30s, who was having a hard time finding a guy with whom she could have a relationship. She had been married and divorced in her 20s. “The guy wasn’t awful,” she said, “but he was really hard to please, and I always felt like I was coming in second to his work.”

Her parents were also smart and successful in their careers. Diane’s mother, a physician, was the chief of surgery at a highly respected hospital. When Diane was about two years old, her mom went back to work full-time—“about eighty hours a week,” Diane reported.

In retrospect, Diane’s mother and father both agreed that those two years between Diane’s birth and her mom’s return to work were very tough on her mother. She had an unmistakable undercurrent of worry and impatience. On the surface this was attributed to the potential loss of the professional status for which she’d had to work very hard. Deeper down, as Diane and I talked more, it seemed to have been more about a basic need to have everything—including Diane—reflect well upon her.

Diane’s dad was an artist with a studio in their house, and so Diane had a fair amount of time with him, but he, as Diane described him, “wasn’t a touchy-feely kind of guy.” If things didn’t go well, she said, “he’d go sulk in front of the TV.”

As we talked more about her relationships with her mom and dad, it was clear that Diane hadn’t made a connection between those relationships and her present problems. She said, “I know they care about me and love me; they were affectionate and all that, and it’s not like I was neglected or abused, so why are you saying that my parents are such a big deal in whether or not I can find somebody?”

Here’s why. Imagine, from little Diane’s viewpoint, that she felt her parents’ love for her—but she also picked up on the other, more subtle but still powerful feelings in how her parents related to her. She sensed the undercurrent of Mom’s anxiety and impatience and Dad’s default mode of checking out.

Well, then, little Diane developed a brilliant strategy, deep down in her brain, below conscious awareness: if she wanted to

avoid the yucky feeling of her mom's anxiety and frustration whenever she spent time with her, she'd better be darn sure she was making her mom feel that having a kid had been worthwhile. Diane remembers being a pretty anxious kid, always trying to accumulate enough "A's and praise" in school to impress her mom (*See? I can make you feel good about yourself as a parent, so love me. Please?*).

And she made sure that she steered conversations with her Dad to nonemotional, intellectual areas in which he felt competent and good, so he wouldn't go off and disappear.

Now, from this perspective of Diane's early relationships with her parents, take a look again at her description of her ex-husband: "He was just really hard to please, and I always felt like I was coming in second to his work."

Her parents weren't evil, or abusive, or neglectful. Far from it—they were doing the best they could. They were probably simply doing what *their* parents had wired into *their* brains.

As babies and kids, we're all just trying to do the best we can with the hands we're dealt—the adaptation I talked about earlier—and our brains wire up accordingly. It turns out that these early attachment experiences not only have an effect on how unpleasant it might be to go home for Thanksgiving, but they also have long-standing effects on how your brain takes shape. Let me emphasize again that this doesn't make your parents the "bad guys," and this doesn't make you a victim; it just means you have some work to do to turn the ship around—which you can do!

In fact, you are now on your way to digging in and getting the job done right. The challenge—the responsibility, really—of adulthood is understanding that you can no longer use the same (albeit then-brilliant) strategies you developed in childhood, and then making the necessary repairs. For example, Diane kept trying to be the same kind of achiever-and-pleaser with her ex-husband as she'd been with her mom and dad—and her brain was probably unconsciously attracted to him in the first place because a hard-to-please person was her most familiar connection—but the old strategy wasn't working. Something needed to change.

Coming to that awareness, though, wasn't enough for Diane to break those "habits" her brain had wired up when she was a kid. Despite her intellectual understanding, and in spite of her best efforts to stop herself, the pattern kept repeating in all her relationships with men. Being really smart, putting ideas together, and other higher-level thinking strategies aren't enough on their own to bring about lasting change in how you live your life. (That's why reading self-help books is often so unhelpful in making lasting changes, even though they make so much sense.) You need to change the underlying wiring itself, and insight alone doesn't do that. It can shine a light on the issue—*aha!*—but it doesn't do the rewiring.

So that's the bad news.

But there is good news! You can do something about that old wiring. That's why you're reading this book!

Before we move into fixing things, though, it'll be helpful to know a little more about what you're dealing with: what was happening in that little baby brain of yours as the first big bundle of relationship wiring was being laid?

CRAWLING INSIDE: A BABY'S DEVELOPING "RELATIONSHIP BRAIN"

There your parents were, holding your tiny little newborn self. You weren't doing much, or so it seemed, other than eating and sleeping and crying and filling your diaper. In reality, though, you were one busy baby. From the time you were conceived, your brain was exploding with development, much of it in response to what you were experiencing. As babies, we're little attachment-experience sponges, with our brains taking in a huge amount of interpersonal data and transforming it into our earliest wiring for closeness. You could see this as a survival tool: being born exquisitely sensitive to whether we're safe or not, and using that to lay down the wiring accordingly.

Your brain is divided into two connected but differentiated halves, or hemispheres. We're hugely right-hemisphere-dominant

when we're born, and the right hemisphere is the heavyweight champ when it comes to the earliest brain growth and activity.

For relationships, what does this mean? Well, let's look a little more at what we know about the right hemisphere's specialties (we'll get more into this later): It's where we "sense" feelings (ours and those of others). It's deeply connected to the viscera (our gut-organs) and the body, and it activates our emotions through our physiology. It understands things in a holistic, big-picture way, rather than breaking things down into smaller parts. It's very much into nonverbal information, such as body language and facial expressions. And it incorporates experiences as *implicit* memories. These are memories that are tapped into later when a current experience reminds us of something we've encountered before, and the tricky part is that they include old emotional information *without our being aware of it*. Another thing that makes implicit memories tricky is that they don't have any time-and-date stamp. They just "are," whenever your brain remembers them. When that happens, your left hemisphere, trying to be logical and helpful in making sense of your current experience, attributes the feelings evoked by the implicit memories to the present situation—and confabulates an explanation.

Let's say you went to the circus when you were a wee tot, and, like so many others, you were scared by the clowns—too much, too loud, too strange-looking for you. That feeling, which happened in the context of the circus, is stored in your implicit memory: *circus = yikes!*

Now let's say you're 25 and your first-time date has the bright idea of going to the circus. Probably without even realizing it, you start to feel a little anxious. Your adult, "rational" brain knows there's nothing scary at the circus (other than the price of the cotton candy), but still you just have this feeling that's been stirred, thanks to your implicit memory.

Because it's an implicit memory that is getting called up, you aren't aware that the feeling/memory you're having is about the circus from over 20 years ago—it feels like it's all about *now*. If *now* you're sitting with your date . . . well, pity the poor guy, because

you're likely to attribute the "yikes" feeling to him. Consciously or not, it could go something like this: *Hmm, I'm feeling kind of icky and anxious right now, sitting here with this guy. Maybe I should dump him.*

So your old, deeply wired memories about safe/unsafe, move-close/run-for-the-hills are pulling the strings on you behind the scenes—and the vast majority of the time, you don't even know they're being pulled from the past. You feel it *now*, and so you attribute it to what's going on *now*.

Another important thing to keep in mind about implicit memories (which we'll get into in more detail in Chapter 7) is that they're driven by the deep, nonverbal, nonlogical parts of your brain that are intensely engaged with survival and fear. And whenever you try to untangle some of those behind-the-scenes strings, you do it the way we highly verbal humans try to solve every other kind of problem—by using the language-based, logical, *upper left* hemisphere in your conscious brain. Yet it's mostly your *lower right* hemisphere that's pulling the strings. That's like trying to negotiate a peace treaty with life forms on another planet when you have little or no contact with them and you don't speak the language. It's not gonna go well.

BABY'S GOT A DEEP BRAIN

Another important aspect of baby brains to keep in mind as we talk about early relationships is that they're pretty basic. You know how we humans like to think we're superior to other mammals because we've got this fabulously wrinkly, highly evolved brain, and a really super-duper cortex (the part that presumably sets us "above" other primates)? Well, the thought-full cortex isn't running the show in young babies. They're not pondering the meaning of life or trying to understand trigonometry. Babies are mostly hanging out in the lower, deeper parts of their brains, which are focused more on survival.

Fear and its separated-at-birth twin, anger, are survival mechanisms, and so they're both wired in from the start. Of course, as a

baby, if you're afraid, you can't run, and if you're angry, you can't say, "Yeah, well, same to you, moron!" and stomp off. You're stuck there with your parents, since your little life literally depends upon them for survival.

So how does the "baby you" deal with those basic, vital emotions? An example will show you (and reinforce just how influential your parents are in the way you will deal with relationships for the rest of your life).

Say you're a crying baby and your mom is holding you in her arms and singing to you. She's a bit tense. She just had a tiff with Dad, and she's exhausted because you kept her up most of last night. She's worried that if she can't soothe you, she'll go sleepless again tonight (and Dad will be even crankier tomorrow).

While she's singing and rocking and doing whatever else she can think of to calm you down, she's also thinking and feeling something like this, a pretty normal response to a crying baby, if we're honest about it: *Pleeease stop crying. This is so frustrating! I'm exhausted! I love you, but you're a royal pain in the butt right now. I really want to be a good mother, but I can't seem to figure it out! I feel like an incompetent human being, and I hate that! Why can't I quiet a simple little baby? I went to college, for crying out loud!*

Also firing off are Mom's own implicit memory connections, the ones related to her own babyhood and maybe *her* mother's tension and impatience with *her* crying. And to make it even more challenging, her attachment style is coming on strong—which, let's say for this example, is based on the idea of needing to do things really, really well so that others will love her.

Mom's doing her best, holding you, singing, and probably not even consciously aware of most of the busyness in her brain, the tension in her arms, her increased heart rate, the fleeting emotions showing on her face. But you can bet your bottom dollar that you, the baby in her arms, so exquisitely sensitive to social and emotional cues, are taking it all in—feeling tone, body language, the whole deal.

In your right-brained, deep-brained baby wisdom, it goes something like this (although, obviously, not in words, and completely unconsciously):

I'm feeling and expressing the need for someone else to soothe me, and I'm getting a mixed response. There's this singing stuff, which is nice, and being held is good, but there's this tension and worry and, hmm, is that anger? They're all jumbled together. Yuck.

Ding! Here's our first implicit memory: *crying and being held is confusing and a little worrisome.*

(Of course, one bad night of crying with a stressed-out mother doesn't cause you, 30 years later, to shudder at the thought of turning to your partner when you're sad. Pathways are built by an accumulation of experiences.)

Since we've established that running away or telling your parents off can't happen until much later, what's a baby to do with all of this information? Baby brilliantly—but basically unconsciously—figures out the patterns of life with Mom and Dad and how to make the best of it.

That's where attachment styles come in.

HOW THIS PLAYS OUT AS YOU GROW UP: ATTACHMENT STYLES

Recall from earlier that, for most people, there are two ways attachment can go: secure or insecure. If your parents “got it right” at least half the time, research shows you will probably have a healthy way with attachment. But chances are you're a member of the Insecure Attachment Club. I can be fairly confident about that, for two reasons: First, as mentioned before, nearly half of American adults fall into this category. Second, if you're having problems with relationships such that you're reading this book about how to make them better (or had someone hand it you, with a look that said, “You. Need. This.”), it's an excellent bet that an insecure style of attachment has been in play.

It's a big camp, with lots of people like you—and me—with well-meaning parents who passed along some suboptimal ways of being in relationships.

It makes sense, then, that we'll be focusing first on insecure attachment, to more fully understand what we're up against. Since my firm stance as a psychologist is that I believe we're all capable of growth and healing, we'll also be spending plenty of time later on secure attachment and how to grow your own. And since I'm a neuroscience geek, we'll be looking at all of this through the lens of the brain.

Fear and Loathing in . . . Attachment

Your brain is constantly assessing your situation for safety/danger. If it determines that things are safe and good, then your body, via one part of your nervous system—the *parasympathetic nervous system*—is set to relaxation, receptivity, openness, flexibility, and connection to the world and people around you. You can slow down and take it all in.

But if the brain determines that things out there are unsafe or potentially painful, it activates a different part of your nervous system, the *sympathetic nervous system*, and the fight-or-flight reaction kicks in.

You can think of the sympathetic nervous system as the accelerator, the gas pedal—the thing that allows you to rev up to run or fight. The parasympathetic nervous system is the brake pedal; it slows you down. (You'll learn more about this later.)

With a good driving instructor (your parent), you can learn how to successfully slow down and speed up smoothly (healthy regulation of your emotions and impulses) and get the car to do what you need it to do.

How does your parent teach you this?

Take a look at a toddler who's just been surprised and a little hurt by a fall. Her sympathetic nervous system, the gas pedal, has accelerated a bit, but she's in that state where she's unsure if all-out

alarm sounding is needed. Her dad is the kind of guy who's always working really hard to keep things controlled and quiet (maybe there was a lot of fear-inducing yelling when he was growing up). He's quickly at her side. "Oh, NO!" is the likely response of his own body's gas pedal, mashed down by both the sight of his baby girl having fallen and his need for her not to cry. As a result, when he tries to comfort her, he's already uptight; he's not able to engage any of the soothing brakes of *his* parasympathetic system. The little girl, in Dad's arms now (which would ordinarily give her body the signal to calm down and start using her own parasympathetic brakes) hears Daddy say in a fast, loud, tense voice, "You're okay! No need to cry! It doesn't hurt!" She doesn't respond by immediately cheering up. Dad quickly starts to feel even more inadequate and uptight. His sympathetic nervous system is so keyed up at this point that he gets irritated and scolds her ("fight") and then, in his fear and shame about having scolded her and being a bad father after all, he leaves the room ("flight"). That's going to feel unsafe and confusing to this little girl, leaving her with a gas pedal and brakes that are confusing to regulate.

If this is a familiar, repeated pattern, this kid's brain will create wiring pathways that cause her to have some degree of anxiety/fear in response to closeness.

Hold Me Close, Pleeeeeease?

In the example above, the toddler could work really hard to stay in connection with her dad, unconsciously (and nonverbally) going for something like this: *I'm really a very good girl, and I'll please you and make you feel better about yourself, just please love me and don't leave me.*

That'd be anxious attachment: working hard to convince someone to love you and stay with you. And remember that for these earliest experiences, there's no time-and-date stamp. The unconscious lesson, incorporated well and deeply, is this: *If I want*

people to love me and stay close to me, I need to please them and do whatever it takes to get them to stick around.

Remind you of anyone you know? About 20 percent of American adults show this anxious style of insecure attachment, although most don't know it. Those of us with an anxious attachment style tend to seek intimate closeness—sometimes to a very high degree; we seem to crave approval and responsiveness from our significant others, and can often become pretty emotionally dependent. At the same time that we want/need a lot of closeness, we actually tend to be pretty distrustful of the whole deal (*is it safe?*), which leads to a lot of worry, busyness, and impulsiveness (*I know I said I wasn't going to call, but I just couldn't help myself*). Expression of emotion tends to run pretty high, while self-esteem is often quite low. All of this, remember, fits with the anxiety about wanting to be close, but feeling that “close” is a risky place, rife with the possibility of rejection and abandonment. Wanting love so badly that you end up losing it is a confusing way to live. (Albert Brooks's character in *Broadcast News* said it best: “Wouldn't it be great if we lived in a world where insecurity and desperation made us more attractive?”)

Steer Clear

Our unhappy little toddler could also take another tack: *Uh-oh, here comes Dad and that closeness stuff again. That never goes well. I need him, but when he tries to make me feel better, he always ends up mad at me and walks away. That hurts. Who wants that again? I'll just be quiet and keep my needs to myself.*

That'd be avoidant attachment. The deeply ingrained, unconscious lesson here is: *I'm not going to reach out and show that I need anyone. Getting close to people is unlikely to make me feel better, and will probably make me feel worse. I'll be just fine as long as I keep a big emotional distance from others.*

This probably sounds familiar to you as well. The research shows that 25 percent of American adults have this avoidant style

of insecure attachment—again, usually without their awareness. Sometimes holding independence up like a trophy, those of us with this style often prefer to see ourselves as self-sufficient and not needful of close relationships. Emotions are very often shunted to the background, and even if we put ourselves out there enough to experience the pain of rejection, we can do things like “rationalize the feeling away” by thinking poorly of an emotionally “needy” former partner. Another form of this self-protectiveness sometimes results in having the desire for closeness, but feeling so uncomfortable and mistrustful of it—and seeing ourselves as so undeserving of it—that we avoid it and try to bury our hunger for it.

Because these early experiences are pretty ordinary, we tend to be unaware that they’re in any way significant in shaping our brains and our attachment styles. Most of us simply say, “Well, that’s just who I am,” as if it’s a done deal and can’t ever change. But your brain can change, and by changing it, you can have more joy and ease in connections and relationship.

Anxious, Meet Avoidant.

Avoidant, This Is Anxious.

What may sound really familiar to you is when these two types of attachment styles meet up and decide to have a relationship.

Unbeknownst to her, Ann has an anxious style of attachment. Her mother was consistently anxious about how Ann was doing as a child, and as a result her mother was emotionally needy and intrusive.

Not surprisingly, Ann tends to pay a lot of attention—consciously and unconsciously—to what other people around her are feeling or needing, and she enjoys being thoughtful, generous, and considerate. She likes to feel appreciated and can be a little hypersensitive if someone is displeased with her.

One fine day she meets Steve, who grew up with an avoidant attachment style. His parents basically steered clear of Steve’s (and

their own) inner, emotional life and tended to dismiss all of that “talking-about-feelings nonsense.” Above all, they prized intellectual discourse and a cool head.

At first, being with Steve felt great to Ann: he wasn’t intrusive at all; he was independent, had his own interests, and was certainly not clinging or needy as her mother had been.

For Steve, Ann’s emotional openness and generosity were wonderful, welcome antidotes to his own rather cold, aloof parents. She seemed to “get” his feelings, which he appreciated, because he’d long felt unseen and misunderstood.

Sounds like a good match, right?

Flash forward about two years. We find Ann and Steve in my office for couples’ therapy (Steve, very reluctantly so). Ann is fed up with Steve’s emotional distance and refusal to commit to a deeper relationship. Steve says that Ann’s emotionality and constant demands for affection and approval are driving him nuts.

THERE YOU HAVE IT

So now you can really understand how deeply (literally and figuratively) your earliest experiences of relationships have shaped you in being able to find and have a relationship with Mr. or Ms. Right. I hope you also understand a bit more about why recent findings that you can change the shape and wiring of your brain are so exciting. We’ve all been given a second chance.

And now that you’ve read this chapter, you know that all of us who have struggled to engage in self-improvement or to increase our self-acceptance—or any other method for trying to make healthier relationships with ourselves and others possible—have been going about the problem a bit backward. We’ve been trying to get our cortex, the intellectual part perched way atop our brains, to make changes in the way the deep, lower parts of our brains drive our relationships.

If we can bring a bit more integration between these parts of our brains, we can bridge that communication gap. And your brain has the perfect structures for that very task—they’re probably just

not buff, brawny, and connected enough. In order to make the best use of the latest neuroscience to bulk them up, we're going to need just a bit more familiarity with those helpful but as yet underdeveloped parts.

Let's move on to Chapter 2 and take a look at the inside of your brain, so you can see which parts and pathways we're wanting—and able—to build up and rewire using mindfulness meditation.