

At some level, Abby knew she was living an incomplete life by neglecting her true self, yet she saw no way out. Beholden to her deceptive brain messages and paralyzed by indecision, she often felt guilty and anxious. No matter how she tried, she could not pull herself out of her excessive thoughts, alter her assumption that she had to protect everyone, or use her Wise Advocate to help her see the bigger picture.

## WISE ADVOCATE

The aspect of your attentive mind that can see the bigger picture, including your inherent worth, capabilities, and accomplishments.

The Wise Advocate knows what you are thinking, can see the deceptive brain messages for what they are and where they came from, understands how you feel (physically, emotionally), and is aware of how destructive and unhealthy your habitual, automatic responses have been for you.

The Wise Advocate wants the best for you because it loves and cares for you, so it encourages you to *value your true self* and *make decisions in a rational way* based on what is in your overall best interest in the long term.

Equally devastating were Steve's deceptive brain messages that kept him from being able to truly connect with his wife, children, and coworkers. In his case, Steve's deceiving brain tried to convince him that everyone in his life wanted something *from* him and that they were not spending time or talking with him because of who he was or because they genuinely cared for him. This false perception caused Steve to become easily annoyed and excessively angry with anyone he perceived was indirectly asking him to do something. Of course, Steve's deceptive brain messages were clouding his ability to invoke his Wise Advocate to help him see the truth: that the people in his life really liked and respected him because he is smart, funny, caring, and insightful, which draws people to him and his ideas. Contrary to what his deceptive brain messages were saying, the people in his life didn't want him to do their work or take care of him—they wanted to spend time with and learn from a genuinely interesting and charismatic man.

Sadly, believing in and relying on his deceptive brain messages caused Steve

to live in a state of chronic stress. No matter where he looked, he saw needy, helpless people everywhere, which drained his energy and fueled his frustration further. Unfortunately, his response to these unsettling surges of anger and disappointment in others was to avoid people whenever possible and to seek solace and relaxation each night in a few glasses of wine. While drinking definitely helped dissolve the stress, it created worsening problems at home and at work: Steve became ever more emotionally distant from the important people in his life, which made him feel alone and deeply sad.

Ed, Sarah, Abby, and Steve are just a few examples of the devastating toll deceptive brain messages can take on people's lives and how listening to such false messages can lead to depression, anxiety, relationship difficulties, isolation, addictions, unhealthy habits, and more. When they were not able to use their Wise Advocate to look at the bigger picture and did not align their actions with their true self, our patients were stuck in an endless cycle of deceptive brain messages.

## **The Cycle of Deceptive Brain Messages**

How do deceptive brain messages manifest and what do they cause you to do? To find out, let's follow the case of Kara, a twenty-five-year-old woman who had been dieting, bingeing, and purging since her teens. If you met Kara today, you would have no idea she held such distorted views of her body as a teen. Confident and vibrant, she seems to have it all. She is successful in her career as an analyst and has a large network of friends. Yet for most of high school and college, she was overwhelmed by deceptive brain messages related to her appearance.

Kara describes the process of how deceptive brain messages impacted her in this way. First, a false, negative thought would strike, telling her she was "no good" and "unlovable" because she was not physically perfect. Although it was not true, Kara would take this missive at face value and accept it as reality. What happened next was excruciating, she says. "I would get an intensely uncomfortable sensation," she remembers, "a feeling that I could not stand being in my own skin." She felt "gross" and "disgusted" with herself, both emotionally and physically. The sensations were unbearable and all Kara wanted to do was get away from these feelings as fast as she could. Her distress would rise,

reaching a crescendo that she could no longer tolerate. Although she would sometimes try to resist them, the uncomfortable sensations, including strong anxiety and self-loathing, were too strong. Eventually, she would relent and engage in an unhealthy behavior (e.g., purging, bingeing, dieting excessively). Once she gave in, a sense of calm would wash over her and she would feel all right again. That momentary relief—and that’s all it ever was—was better than nothing.

Or so she thought. What Kara learned with experience was that once she completed the behavior, the deceptive brain messages and uncomfortable sensations came back in full force. “No matter what I did, I always ended up right back where I started. Nothing ever worked,” she recalled recently. Her life was consumed by her deceptive brain messages and its mandates of how she should act. “I was wasting my life,” she laments. She lost important time that she could have spent with her family and friends, on her career, or on pursuing activities she truly enjoyed.

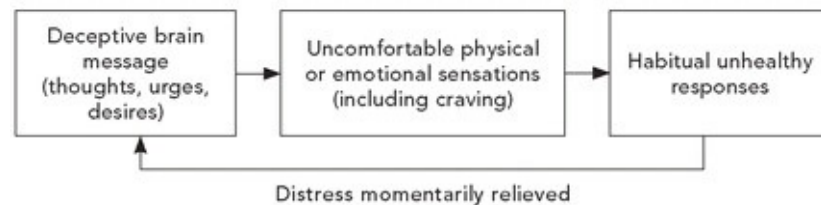
Kara felt horrible about engaging in these cycles to try to make the terrible feelings of inadequacy go away. Deep down, she wanted to figure out how to stop the behaviors and not buy into the deceptive brain messages, but she had no idea how to do it. She had tried almost every diet and had been to numerous therapists and nutritionists. Nothing helped. Even worse, Kara eventually realized that the problem was intensifying, not getting better: “The more I paid attention to food and to how I looked, the worse I felt about myself and the stronger those negative thoughts became.”

What was happening to Kara when she was immersed in following her deceptive brain messages? She was stuck in an unrelenting pattern where destructive thoughts and impulses led to distress and unhealthy behaviors.

If we simplify the process of what transpired whenever Kara gave in to her deceptive brain messages, we see a cycle unfold in which the negative thoughts or urges were followed by intensely uncomfortable physical or emotional sensations that she desperately wanted to get away from. As a consequence, Kara would engage in some unhealthy or unhelpful behavior to relieve her distress. While they provided a momentary reprieve, these actions ultimately were detrimental to her because her body and brain learned to associate these behaviors with relief (despite the fact that they were causing her harm in the long term).

What Kara described is a universal phenomenon that applies to you and all of your deceptive brain messages, regardless of what initiates them. As shown in figure 1.1, the process begins when a deceptive brain message surfaces and causes you to experience some kind of distress or discomfort. You might

experience a physical sensation, like your heart pounding, a pit in your stomach or overwhelming cravings, or an emotional state, such as fear, dread, anxiety, anger, or sadness. No matter what it is, your primary goal at this point is to get rid of that sensation as fast as you can, so you act in an automatic, habitual way.



*Figure 1.1. Cycle of Deceptive Brain Messages*

This figure depicts the process of how a deceptive brain message progresses to unhealthy behaviors and habits. After a deceptive brain message arises, you experience intensely uncomfortable sensations that can be physical or emotional. Because of how unpleasant and powerful the sensations are, you feel an urgent desire to make these sensations go away. As a result, you respond in an *automatic* (habitual) way that is ultimately unhelpful or unhealthy for you.

As you've seen from Ed, Sarah, Abby, Steve, and Kara, the harmful strategies used to avoid and escape those uncomfortable sensations vary depending on the content of the deceptive brain messages and the patterns you have developed to attempt to deal with distress. The range of possible responses is endless and includes feeding an addiction, getting into an argument, avoiding a situation, shutting out the world, or endlessly checking something. In many cases, you are not even aware of what you are doing, but somewhere inside you, likely below the level of conscious awareness, you instinctively believe you have to complete the behavior to get rid of the intense and unpleasant feeling you're experiencing.

## **EMOTIONAL SENSATIONS VERSUS EMOTIONS**

Something that confuses many people when we talk about the uncomfortable sensations that arise from deceptive brain messages is the difference between an *emotional sensation* and an *emotion* or *true*

*feeling.*

Whenever we talk about emotional sensations, we are referring specifically to those feelings that are *evoked by deceptive brain messages and are not based in the truth*. For example, if you are feeling sad because you lost someone you care about, that is an emotion based on a real event. In all likelihood, your reaction is what most people would experience and is proportional to the event. Thus, it is an *emotion*, not an *emotional sensation*. These kinds of emotions should not be avoided; rather, you should experience and constructively deal with them as they arise.

In contrast, if you were feeling sad because you had the thought that no one cared about you and that you were unlovable—despite evidence to the contrary, such as having good connections with a variety of loving family and friends—then your sadness would be based on a deceptive brain message. We would consider this an *emotional sensation* (not an emotion) that could lead you to act in a way that is not helpful to you, such as isolating from people who really do care about you, using food or substances as an escape, or engaging in another unhealthy behavior.

Throughout the book, we will use the term *emotional sensation* to refer to feelings that are caused by deceptive brain messages. These are the sensations we want you to focus on as you use the Four Steps because they are the ones that you need to learn how to dismiss and see as being caused by deceptive brain messages. Ultimately, they are not true and are leading you to act in ways that are not helpful or constructive.

We will continue to discuss the difference between emotions and emotional sensations caused by deceptive brain messages and help you learn how to differentiate them. For now, keep the following distinction in mind: *Emotions* should be felt and constructively dealt with because they honor your true needs and your true self, whereas *emotional sensations* should be Relabeled and Reframed with the Four Steps because they are destructive and false, and cause you to act in ways that are not healthy or beneficial to you.

Although it is natural to want to avoid distress, seek out pleasure, or feel relief, the problem with satiating these cravings or quelling that upset is that your brain then becomes hardwired to automatically choose unhealthy behaviors to

calm you down. In essence, indulging these habitual responses causes your body and brain to begin to associate something you do, avoid, seek out, or repetitively think about with *temporary* relief or pleasure. These actions create strong and enduring patterns (circuits) in your brain that are difficult to change without considerable effort and attention. As this process unfolds, the deceptive brain messages occur more frequently and the uncomfortable sensations grow more intense, making it harder for you to resist them or change your behaviors.

Therefore, whenever you repeatedly do something pleasurable or avoid some kind of overtly painful sensation, your brain “learns” that these actions are a priority and generates thoughts, impulses, urges, and desires to make sure you keep doing them again and again. It does not care that the action ultimately is bad for you.

As you will learn throughout the book, what you do now and how you focus your attention influence your brain and how it is wired. This means that if you repeat the same act over and over—regardless of whether that action has a positive or negative impact on you—you make the brain circuits associated with that act stronger and more powerful. So, if you avoid something that causes you anxiety (like Ed), hide from people who love you when you are depressed (like Sarah), continually worry about others (like Abby), or drink to reduce your stress level (like Steve), your brain is going to strengthen the circuits supporting those actions—meaning that your brain will be far more likely to repeat the behavior or habit automatically whenever a similar situation arises.

You will learn more about why habits are so hard to break and the biology behind deceptive brain messages in chapters 3 and 4. For now, keep in mind the cycle Kara described: The take-home message is that deceptive brain messages lead to uncomfortable sensations (both physical and emotional) that cause you to act in automatic ways that are not beneficial to you.

## **HABITUAL RESPONSES**

When someone mentions the word *habit*, most people think of repetitive physical actions. While those certainly are habits, we consider a larger range of responses to be habits as well. For example, if you constantly avoid a situation, person, or location because of how uncomfortable it makes you feel, you also are acting in a habitual way.

The same goes for engaging in repetitive thoughts caused by deceptive brain messages that do not lead to a solution or any forward

progress. Remember Abby's overactive "guilt machine" that caused her to worry about every little thing related to her family members and Sarah's struggle to try to figure out solutions for interacting with her friends and coworkers? They each described repetitively thinking about and analyzing situations to try to *rid themselves of the horrible sensations they were experiencing*. In Abby's case, the sensation was guilt and for Sarah it was anxiety and depression. Although the content of their deceptive brain messages and their uncomfortable emotional sensations were different, their responses and goals were the same: repetitively thinking about something for which there was no solution and desperately trying to get rid of the uncomfortable sensation caused by a deceptive brain message. (Note: Other words for repetitively thinking about something include *rumination*, *mental compulsions*, and *overthinking*.)

We consider overanalyzing and overthinking to be habitual responses. Therefore, when we talk about the Habit Center and habitual responses, we are referring to repetitive thoughts, actions, or inaction—anything that you do *repeatedly* that is caused by a deceptive brain message and takes you away from focusing on something that is beneficial to you.

## **Identifying Your Deceptive Brain Messages**

Now that you have a sense of what deceptive brain messages are, you can begin to think about how they are negatively impacting you. Some things, like behaviors and cravings, are easier to identify because you can see or feel them physically. What is harder for many people to identify at first are the thoughts associated with specific actions.

Although it is often difficult initially to see your deceptive thoughts at the beginning, we do not want you to feel discouraged or give up. Through case stories, explanations, and exercises, we will help you recognize the kinds of deceptive, negative messages your brain sends you. The point right now is for you to start becoming aware that these deceptive messages likely are lurking in your brain.

How can you begin to recognize the false, negative thoughts associated with

your actions and uncomfortable sensations? One of the best ways to “see” the deceptive thoughts is to be attentive to your “negative self-talk”—those things you automatically say to yourself without awareness that are not true and that others might never even suspect were present inside your head. You may have already been exposed to the idea of such deceptive brain messages, just under a different name. Some therapists or authors might refer to them as “cognitive distortions,” “automatic thoughts,” “negative thinking,” or “scripts.” The main point is that these are the disparaging stories you tell yourself—the inaccurate explanations you give for why something is happening the way it is—that cause you to act in habitual ways that are not beneficial to you.

Often, seeing what others have described and experienced can be helpful in identifying your deceptive brain messages. On pages 16 and 17 are examples of deceptive brain messages, uncomfortable sensations, and unhealthy habitual responses we’ve heard over the years.

#### False Thoughts/Impulses/Urges (i.e., Deceptive Brain Messages)

- I’m not good enough.
- I should have/I shouldn’t have.
- I’m crazy/I’m a sick person.
- I’m a bad person/I am not as good as . . .
- I don’t matter/Everyone else is more important than me.
- I will be rejected/Everyone thinks I am . . .
- There’s something wrong with me.
- I have no control.
- No one likes me/I am unlovable/I will be alone.
- All of my worth is in taking care of others.
- I don’t deserve to be happy—I deserve to suffer or be punished.
- Everyone else seems to be doing things correctly; what’s wrong with me?
- I want unrealistic or unattainable things, like always feeling “good.”
- I have a repetitive craving for something that ultimately is not beneficial to me.
- I have an urge to escape reality.

#### Uncomfortable Sensations

- Anxiety
- Pit in my stomach
- Butterflies
- Tightness or pounding in my chest



- Sweating
- Heart beating fast
- Excessive anger
- Heat in my chest, arms, or face
- Sadness/depression
- Fatigue
- Feeling scared/frightened
- Feeling helpless/hopeless
- Having a physical craving for something pleasurable

### Habitual Responses

- Using drugs or alcohol
- Shopping/spending money I do not have
- Wasting time on things I do not need to do
- Fighting/arguing
- Compulsive sex
- Excessive eating, dieting, or purging
- Avoiding people, places, events
- Smoking
- Eating things that are not good for me
- Repeatedly checking something (e.g., e-mail, text, facts, information)
- Avoiding unpleasant (but beneficial) things like exercise
- Overthinking or overanalyzing situations, events, problems

Think about your deceptive brain messages and the cycles you go through. What are the false messages your brain sends to you and what do you do as a result of those negative messages? It could range from negative thoughts about yourself to feelings of inadequacy to the desire to escape your reality, indulging in a pleasurable craving, or something else that wastes your precious time and money. What we are getting at are the thoughts, urges, desires, and impulses that cause you to act in ways that take you away from your true goals and values.

Here are examples of how the cycle of deceptive brain messages played out for some of our patients. Read across each row to get a sense of what the person's thoughts, sensations, and responses were. After you review these examples, we'll have you come up with some of your own.

### **EXAMPLES OF THE CYCLE OF DECEPTIVE BRAIN MESSAGES**

Deceptive Brain Message	Uncomfortable Sensations	Habitual Responses
I'm not good enough.	Pit in my stomach	Get reassurance from someone that I am okay.
I'm a bad person.	Tightness in chest	Isolate/withdraw from people.
I should have listened to Joe, not argued with him.	Heart beating out of my chest, sweating	Repeatedly apologize to Joe, even though he keeps saying it was not a big deal.
I am so stressed out, I just need to get out of my head.	Overwhelmed, "amped up"	Use alcohol, pot, or other drugs to escape.
They are not going to hire me for this position.	Butterflies in my stomach, scared	Make up an excuse to not go to the interview; avoid the situation.
I am going to mess up this presentation.	Ringing in my ears, feeling a little dizzy	Ask someone else to give the presentation or move it to another day.
She's going to leave me!	Scared, nervous energy, light-headed	Check my e-mail again to see if she responded (and that everything is okay).
I am so angry at him—it's all his fault!	Surging heat in my chest and arms	Get into an argument, even though it really wasn't his fault.
I really want to eat something sweet.	Hunger, salivation	Eat some cake even though I don't need it and am trying to lose weight.
I have an urge to eat fried food (even though I have high cholesterol).	Craving—it tastes so good—I want it!	Eat some fried chicken and increase my cholesterol levels further.

The clear message in the examples above is that all of the people doubted themselves and their truth, could not see what was really happening, or craved something so strongly that they were unable to follow the path of their true goals and values. To deal with the uncomfortable sensations (both physical and emotional), they did *something* to alleviate the distress, including looking for reassurance, repeatedly apologizing, checking e-mail, avoiding a situation, using a substance to dull their senses, or indulging a craving to bring themselves momentary pleasure, such as eating sweets or fried food. In all cases, the actions were harmful to them and did not get them any closer to their true goals in life.

With this background, use the table below to figure out your pattern of deceptive brain messages, uncomfortable sensations, and habitual responses.

Don't worry about doing this perfectly or having an all-inclusive list. This is just a jumping-off point—there will be many more opportunities along the way to refine your list. For now, just see what comes to mind. Remember: We're trying to increase your awareness of what your brain is doing automatically, without your knowledge. For now, write down some of your deceptive thoughts, uncomfortable sensations, and what they cause you to do or avoid.

### EXAMPLES OF THE CYCLE OF DECEPTIVE BRAIN MESSAGES

Deceptive Brain Message	Uncomfortable Sensations	Habitual Responses

Deceptive Brain Message	Uncomfortable Sensations	Habitual Responses

Throughout the book, we will help you identify what kinds of deceptive brain messages are causing problems in your life and figure out ways to deal with them. For now, we simply want you to start becoming aware of all the times during the day that your brain tries to tell you one thing, whereas your goals or intentions would guide you to do something else.

## **You Are Not Your Brain**

Now that you understand what deceptive brain messages are and how much

damage they can cause, you likely want to know the solution: *constructively focusing your attention with your mind*. What do we mean?

We've shown you that the *brain* is capable of sending out false, deceptive messages in an unrelenting fashion and that these unwanted thoughts and destructive urges can overrun your life. They can take you away from your true self (i.e., your true goals and values) and cause you to live a life devoid of direction. And, as long as you remain unaware of what your brain is doing or believe that there is no way to alter how your brain functions, you are essentially powerless to live life on your terms. There's no place from which to make a change because the very thing that is generating the deceptive brain messages appears to be running the show.

The good news is that you have an ally that can help you sculpt your brain to work for you, rather than against you: *the mind*. Although there are many different concepts and definitions of the mind out there, ours is straightforward: The mind is involved in helping you constructively focus your attention. Why is this important? When you learn how to focus your attention in positive, beneficial ways, you actually rewire your brain to support those actions and habits. In this way, the mind gives *you* the power to determine your actions, decide what is important (and what is not), and reassess the value or meaning of situations, people, yourself, and events.

## **THE DIFFERENCE BETWEEN THE MIND AND THE BRAIN**

The brain receives inputs and generates the *passive* side of experience, whereas the mind is *active*, focusing attention, and making decisions.

Another way to think about the difference between the mind and the brain is this: The brain receives information from the environment, including images, verbal communication from others, emotional reactions, bodily sensations, and so on, and then processes that information in an automatic and rote way. No thought or awareness is involved (at least initially). Once it processes these inputs, the brain presents the information to our conscious awareness.

This is where the mind comes in. At this point, the mind has the ability to determine whether it wants to focus either on that information coming from the brain or on something else. In comparison to the mind, then, the brain is passive

—it does not take a long-term, values-based approach to actions. In other words, the brain does not incorporate your true self or Wise Advocate into its processes, but merely reacts to its environment in habitual, automatic ways.

In the case of Kara, her brain was wired to falsely associate bingeing, purging, or excessive dieting with being thinner and loved. As long as she believed in these deceptive brain messages and responded with the same unhealthy behaviors, *Kara's brain was running the show*. She would be stuck in unending loops of deceptive thoughts, rising anxiety, and unhealthy actions—and her brain wiring and unhealthy habits would only get stronger and more entrenched. She would not break this cycle until she could begin to engage her Wise Advocate to help her see how destructive those acts were (even though they brought her momentary relief or pleasure). As her Wise Advocate grew stronger, she would *actively* change how she focused her attention and how she responded to the deceptive brain messages. This would allow her to resist the strong urges to excessively diet, binge, or purge in the future when deceptive brain messages surfaced.

As you can see from Kara's example, what makes the mind unique is that it has the ability to consider many options and can weigh short-term actions against longer-term goals. In essence, the mind is the agent that ensures you are following the path to achieving your goals as defined by your true self. How does the mind align these goals and actions? By integrating the view of the Wise Advocate and using insight, awareness, morals, and values to guide your responses and empower you to make choices that are in your long-term best interest. The brain, in contrast, tends to act in an automatic way that ensures momentary survival and a sense of safety. Remember Darwin? You can think of the brain as working in the survival-of-the-fittest mode—trying to ensure safety, comfort, or relief in this moment, no matter what the future costs.

Just to be very clear: The brain and the mind work together, as a team. Neither is “better” than the other. We certainly need the brain's quick actions to survive if we are confronted with a dangerous situation, such as being attacked or about to be hit by a car. That fight-or-flight response is what ensured the survival of our species to this point. In the end, it's really about balancing the necessary, energy-efficient, and quick actions originating in the brain that ensure momentary survival with the longer-term, considered decisions coming from the mind (assisted by your Wise Advocate).

## **WHEN THE SYSTEM GOES AWRY**

On the surface, it seems like this division of labor between the mind and the brain is ideal. When we are dealing with thoughts, emotional sensations, and actions that are consistent with our true self (who we aspire to be), all is fine. But what if we actually have unhealthy or maladaptive routines programmed into those automatic neural structures and we are not aware that they are happening? For example, what if we've taught the brain's Habit Center to perform an action that is not good for us, like excessively drinking alcohol when we're stressed or eating ice cream every night (even though we are trying to lose weight) because it makes us feel good?

We'll talk more about how this happens in later chapters, but for now believe us when we say that the automatic parts of the brain are so efficient that their routines can become wired into our brain without us realizing it and can lead to devastating consequences. That's why learning how to *focus your attention* is so important—it is the one variable you have power over that *can change your brain*. This is why, when the stakes are high, such as continuing to use a drug that is destroying your life, repeatedly eating something that causes your health to suffer, or giving in to anxiety to the point that you avoid things that are beneficial to you, you need to engage the Wise Advocate to recruit the mind to make important long-term decisions.

Unfortunately, many people, when in the grips of sadness, desire, anger, urges, anxiety, fear, or addiction, cannot and do not make this distinction between the mind and the brain. They cannot see what is happening and tend to blindly follow the impulse-laden brain wherever it wants to take them. They accept momentary relief or pleasure at the price of future pains. It makes sense from a biological perspective—we are all wired to use the automatic, energy-efficient parts of our brain first, with the primary goal of survival or safety in that moment. But choosing momentary relief and placing your attention on an unhealthy behavior come at a steep price because these choices can end up shaping the brain in detrimental ways.

We'll talk more about the mind's ability to change the brain, known as Self-Directed Neuroplasticity, in chapter 2, but first we want to address one other fact: Biology is *not* destiny. To succeed with the Four Steps and sculpt your brain in the ways you want, you need to believe that you are not destined to live a predetermined life based on your genetics. You have the ability to overcome many of the obstacles you inherited and to influence the ways in which your brain and body function.

## **BIOLOGY IS NOT DESTINY**

Many of us feel powerless to make a change. We think, “I am these thoughts, I am these urges, this is *who* I am.” Some feel that even if they seek out treatment and improve, the fact that they have been depressed, anxious, or addicted in the past means they will always be *that* person, the one with the problem. Or they worry that the symptoms are destined to recur. They believe they were dealt a bad genetic hand at birth and are sentenced to a life of misery and chronic struggle. They often end up thinking, “What’s the point? I can’t beat this thing. I’ve tried before and nothing has ever worked. I might as well give up.”

This is a sad and tragic way to approach life, especially when there is so much we can do about many of our problems and challenges. Granted, we are talking about genetic vulnerabilities or predispositions, not severe genetic diseases, such as Down’s syndrome or Huntington’s disease, that cannot be altered by lifestyle changes. Several examples of genetic vulnerabilities that often come to mind include alcoholism, high blood pressure, high cholesterol, and diabetes. What’s most interesting—and applicable to you—is that in all of these cases, the underlying biology you were born with can be heavily influenced by how you act. In fact, *there really is no distinction between many physical and psychological ailments in terms of your ability to influence your body and brain to make positive changes in your life.*

Equally important, there also is no distinction in how hard it is to make those changes, even when your life depends on it. Yet people often do not make the changes, even when they know it is best for them. This is because *change demands considerable effort and a strong commitment.* Often, the knowledge that we need to change isn’t enough and shaming us into submission doesn’t help, either. In fact, it usually causes us to react in the opposite way: We become entrenched in our behaviors rather than liberated from them. This is perhaps the most important reason why we must never capitulate to confusing our biology with our true self. What we need instead is to use our awareness of the crucial difference between biology and who we want to be to *motivate* and *empower* us to truly believe we are in control of our lives and our health.

The key to succeeding, then, is not merely education and fear tactics, but an awareness that overcoming rote, automatic neural pathways takes an incredible amount of effort, patience, and dedication. Not only do you have to clearly see that you are engaging in these actions and that they are hurting you, you have to expend the effort and energy to recruit different brain pathways and make different choices each time you are confronted with the urge to follow your old ways. It is the same struggle we talked about previously: giving in to short-term rewards and enticements at the expense of long-term gains. It is the dilemma of satiating the brain-based messages in the moment versus choosing actions that



are aligned with your goals and values (i.e., your true self). The ultimate goal is seeing that you are far more than your deceptive brain messages and that you can make choices that are in your genuine best interest.

## **YOU ARE NOT A DISEASE OR DISORDER**

If biology is not destiny and the brain is constantly sending out false messages, then it follows that you are not what your brain is trying to say you are. You are not a bad person just because those inaccurate and highly deceptive brain messages are present in your head. Rather, you are a person who is experiencing an onslaught of brain-based communications that are not true.

Accepting this fact, we know, can be challenging. Insidious and highly destructive, these types of false brain messages try to convince us that what we are feeling is the truth, that we are defined by our deceptive thoughts and feelings. Unfortunately, these messages can become so ingrained and inculcated in our lives that they begin to provide a sense of familiarity and comfort—which makes it all the harder to try to give them up.

If you don't believe it happens, consider this example from Ed. One day he posed a question to others he knew were also dealing with deceptive brain messages: "If you had a magic wand and could get rid of all your symptoms—be 'normal' right now—would you do it?" Surprisingly, some of the people hesitated in answering this question because their lives and identities had become so entwined with their symptoms. Despite improving considerably and having some knowledge that their brains were sending out these caustic messages, Ed's acquaintances still had trouble de-identifying with their symptoms and their current way of life. Although they wanted to be free from the deceptive brain messages, they were also scared. Who would I be, they asked, if I didn't have these thoughts, these feelings, these habits? After all, isn't this what defines me? Isn't this who I am?

Although difficult to believe at first, the fact is the brain is distorting reality by framing the majority of your experiences through the lens of deceptive brain messages. The truth is that you are a good person, worthy of love, attention, affection, and more.

With time and repeated practice with the Four Steps, Ed came to know that this was true. He triumphantly realized one day: "This is just a reality my brain is *creating*. It is not the truth and I don't have to believe it." With this eloquent insight and an ever-increasing belief in himself and his abilities, Ed was able to lift the veil of his deceptive brain messages by saying to himself: "Don't believe

everything you think or feel!” Similarly, Sarah came to this empowering conclusion regarding her symptoms and identity: “This isn’t *me*, this is *depression*.”

Separating your identity, your true self, from the deceptive brain messages and unhealthy habits you’re engaging in is critical. Therefore, we cannot overstate this point: *You are not a disease, problem, or disorder*. You are a *person* struggling with upsetting symptoms from which you want to find relief. This distinction is crucial because people who realize that they are more than their symptoms feel like they have the power to overcome them. Without this belief in yourself and your abilities, the path to healing will be much more challenging. We hope that this knowledge, along with specific help from us throughout the book, will help you increase your ability to dismiss the deceptive, brain-based messages, believe in yourself, and change your life for the better.

## **YOU CAN SUCCEED**

From the stories of Ed, Sarah, Abby, Steve, and Kara, it is clear that the brain can lead you down a dangerous path resulting in depression, anxiety, troubled relationships, addiction, excessive anger, emotional isolation, and more. Their stories have highlighted a major roadblock you’ve likely been encountering: a lack of awareness that your brain was running the show.

The true message of this chapter is that you have the ability to define who you aspire to be (your true self) and align your behaviors with those goals. Let’s face it: This is no easy task. We know that to really alter your behavior requires that you fundamentally modify the choices you make on a daily or even minute-by-minute basis. We also know that you are going to have to fight against powerful brain biology in the Habit Center, which acts in a very efficient and automatic way outside of our awareness. Ultimately, you succeed when you recognize that it is not your fault that you are struggling—it’s just that your brain is simply doing what it does best—and resolve to make changes that are in your long-term best interest. That said, the fact that you are up against some intense brain biology does not get you off the hook or give you an excuse to give up—only you can free yourself from the tyranny of bad brain circuits.

## **Summary**

- Your brain sends you false messages all the time throughout your day.
- These messages often are destructive and can prevent you from achieving your goals.
- Deceptive brain messages are any thoughts, impulses, or desires that take you away from your true goals and intentions in life.
- You are not defined by the thoughts in your head.
- The mind and the brain are distinct entities.
- The Wise Advocate can help you decide how to act and how you perceive/think about things.
- The mind chooses how you focus your attention.
- You have the ability to define your true self and align your actions with those goals and values on a moment-to-moment basis.
- You are not a disorder, disease, or problem.
- Biology is not destiny.
- Your Wise Advocate encourages you to make decisions that reflect your true self and that benefit you in the long term.
- **YOU ARE NOT YOUR BRAIN.**

## CHAPTER 2

### Using Your Mind to Change Your Brain

#### The Power of Self-Directed Neuroplasticity and Meaningful Goals

Imagine what it would be like to wake up one day and not be able to move half of your body. On the Saturday before Easter in 2001, Connie Smiley experienced that firsthand. An engaging, lively sixty-five-year-old outreach coordinator at the Cincinnati Zoo, Connie was driving to the zoo for a Safari pre-trip meeting. As an avid animal lover and former grade school teacher, Connie couldn't wait for this trip to Africa, which would be her fourth. This time she was going to visit the cheetah sanctuary—a lifelong dream—and tour parts of Africa she had never seen.

As she was driving to the zoo that day, she noticed that something was wrong. “I began to realize that I was having trouble keeping my car from going left,” she says. A little later, while walking on the zoo grounds, she was dragging her left foot slightly and it felt like her left arm was “made out of a ton of bricks.” She met her daughter there, who correctly identified that she was having a stroke and insisted she go to the hospital. Both she and her daughter knew the signs of stroke well because Connie's husband had a massive stroke ten years prior and lived out his days in a nursing home, unable to care for himself.

Connie was admitted to the hospital and at first her symptoms did not seem that bad. However, by Monday morning—three days after her symptoms began—she could not move the left side of her body at all. “Not a finger, not a toe, nothing,” she recalls. When you have a stroke like that, you lose half of all your muscles, including those muscles involved in chewing, breathing, and speaking loudly. Connie didn't want to believe what was happening to her and was incredibly disappointed that she was about to miss this amazing opportunity to see her favorite animal in its natural habitat.

“Things went downhill from there,” she remembers. Her physicians believed

that her stroke was severe and that she would not recover the use of her left arm or leg. They certainly were not sugarcoating her prognosis, as Connie recalls: “My own doctor came in to see me and said, ‘Well, you’ll never walk again.’” Another doctor said she would pray for her. Images of Connie’s husband flashed before her eyes. Would she end up like him, stuck in a nursing home for the rest of her life? Despite what the doctors were telling her, Connie did not give up hope: “I made a decision right then and there, knowing it might not be possible. If there was any way I could keep from ending up like that, I was going to do whatever it took.” Unbelievably, seven weeks after her first symptoms began, the woman whose left side had been completely paralyzed was able to walk with assistance and go home.

Since her stroke, Connie has made incredible progress. Some of her abilities, such as walking, came back very quickly, whereas others, like holding heavy objects in her left hand, have yet to fully return. Throughout it all, she used Self-Directed Neuroplasticity powered by her meaningful goals to guide and fuel her recovery.

Why introduce you to Connie and her stroke, a physical problem, when we are focusing on overcoming deceptive brain messages? There are several reasons. First, physical struggles and the emotional toll they take often are easier to understand than purely emotional ones. You can see part of the struggle with your eyes and understand it in a more universal way. Second, Self-Directed Neuroplasticity—the underpinning of Connie’s recovery and yours—works in exactly the same way for the physical maladies Connie experienced and the psychological distress caused by deceptive brain messages. This means that everything Connie learned and did can be applied to you. Finally, the challenges Connie faced emotionally and the motivation she had to muster to achieve her goals are similar to what you will face as you work with the Four Steps.

## **Labeling Physical and Emotional Sensations**

Connie’s road to recovery was anything but easy. She spent a week in the hospital and then transferred to Drake Center, an acute rehabilitation facility in Cincinnati, Ohio. There she spent three weeks in the acute inpatient unit and another three weeks at their assisted living center. The days were long and intense. She was making progress every day, but she was not improving as fast

as she had wanted or expected. As she remembers, “I think I originally thought I would be back to the way I was before. It took me a while to accept that, no, that’s never going to be.”

The discrepancy between her expectations and reality led to considerable frustration and anger—two emotional sensations that became Connie’s biggest obstacles during her stay at Drake. Often, if she could not achieve what she wanted, she says her frustration would get “to the point where I would start throwing things and losing it.” Her deceptive brain messages were telling her that she was not working hard enough and that she *should* be able to complete the task. As these negative messages took hold, Connie would be consumed with strong physical sensations—the surging heat of anger—and her thoughts would become clouded. No longer able to focus on the task at hand because her emotional sensations were taking over, she would become stuck.

Rather than stewing in the uncomfortable sensations of rising anger and frustration, Connie labeled her emotions so that they no longer held power over her. “By simply saying ‘I’m mad,’” she recalls, “I wasn’t mad anymore . . . it took care of the problem.” Once she stated what was happening—by making mental notes—Connie was able to get outside of the sensations. Instead of being consumed with anger, frustration, and the powerful physical sensations that accompanied them, Connie would focus her attention toward the task at hand.

## **MAKING MENTAL NOTES**

The process of becoming aware of and focusing your attention toward noticing the appearance of a thought, sensation, urge, response, or event as it arises.

Mental notes involve more than simply identifying a deceptive brain message, uncomfortable sensation, or habitual response—they also include focusing your attention on them long enough for you to encode, or *remember*, the experience without becoming ensnared by it. This allows you to start noticing patterns in your thoughts, urges, sensations, and responses that are unhelpful or harmful to you. When you repeatedly make mental notes, you start to “see” the unhealthy thoughts, urges, sensations, and responses faster and can dismiss them before they spiral out of control. We will teach you more about mental notes in Part Two of the book when we discuss Step 1: Relabel. For now, keep in mind that

mental notes are a powerful way to identify your deceptive brain messages and the patterns they create so that you can more rapidly dismiss them and refuse to give in to their commands.

## **Saying No to False Brain Messages—Reframing Their Content**

Making mental notes was a key step for Connie, but it was not enough on its own. She also needed to evaluate the content of her deceptive brain messages so she could counter and veto them.

One day while at Drake's assisted living facility, Connie fell in the shower. She was not yet strong enough to walk on her own and was still using a wheelchair. Having no way to summon help, Connie knew she would have to figure out a way to get to the hall. As Connie lay there, she managed to get her upper body onto the seat of the wheelchair and propelled herself forward on her knees. She was making progress, but then her chair got stuck on the door frame. "I had this awful 'I can't do this' moment," she recalls, and she momentarily gave up.

Then, something miraculous happened. A few moments after saying "I can't," Connie realized that she was giving in to a deceptive brain message. She reminded herself of something she had learned years earlier: Whenever she said the phrase "I can't," what she was really communicating is "I won't." The minute she recognized what was really happening and called it like it was, she remembers, "I was totally empowered to do it." She turned the deceptive brain message on itself by discounting it and instead believing in herself by saying, "Of course I will! This is ridiculous." Once she labeled and Reframed the content of her deceptive brain message by looking at it rationally, Connie calmed down, collected her thoughts, and figured a way out of the bathroom, successfully receiving the help she needed.

Connie's process of Relabeling her negative brain messages (Step 1) and Reframing their content (Step 2) as self-punitive allowed her to veto the intended action (Step 3)—the one telling her to give up and accept defeat. To counteract those negative messages, she used a rational, supportive perspective to see reality as it truly was and believe in herself. In other words, she successfully invoked her Wise Advocate to reevaluate the deceptive brain messages. With its guidance, she chose a positive, healthy response that enabled her to get help.

## **Veto Power**

Another one of Connie's assets was her ability to focus her attention away from deceptive brain messages and on to activities that helped her regulate her physical and emotional sensations. Struggling daily to make gains in therapy, Connie remembers crying and feeling overwhelmed whenever anyone would come visit her. While she wasn't depressed or demoralized, she would become flooded with physical and emotional sensations that were out of her control. At one point, a psychologist recommended that she consider taking an antidepressant to deal with her crying spells. The psychologist said to her, "If you are going to cry every time someone comes in, your friends won't want to come around anymore." Because of her strong belief in herself and strong alignment with her Wise Advocate, Connie declined the medications and responded by saying, "Look, my friends will come and if they don't, they're not friends. I will take care of it." And she did.

When those overwhelming physical and emotional sensations surfaced, Connie would "stop a second and swallow—then I could get over it." By focusing on a physical act like swallowing (i.e., Step 3: Refocusing away from the distressing false sensations), Connie was able to move forward. That ability to refuse to give in to her deceptive brain messages—what we call *veto power*—allowed her to choose new responses that enabled her to interact with her family and friends in the ways she wanted.

## **VETO POWER**

The ability to refuse to act on a deceptive brain message, uncomfortable sensation, or habitual response.

## **Self-Directed Neuroplasticity**



A large part of Connie's success was due to her ability to keep going forward even when she felt like giving up. By focusing her attention and efforts on things that mattered to her, Connie was able to persevere through almost any challenge. Peter G. Levine, a researcher at Drake Center and author of *Stronger After Stroke*, worked closely with Connie during parts of her recovery. As he explains, she used her passion for the animals and teaching—those things that gave meaning to her life—“to drive her nervous system towards recovery far beyond any expectations.”

What Levine is referring to is a concept known as neuroplasticity, which is the ability of the brain to take on new functions based on a person's changing needs and actions.

## PLASTICITY AND NEUROPLASTICITY

*Plasticity* comes from the Greek word *plastikos*, meaning “formed” or “molded.”

*Neuroplasticity* includes any process that results in a change in the brain's structure, circuits, chemical composition, or functions in response to changes in the brain's environment. It is a property of the brain and is best understood as a *capacity* (or potential) for brain areas and circuits to take on new roles and functions.

How does neuroplasticity work? Let's take the hypothetical example of Sam, who was unable to walk after a stroke, to see what normally would happen when a person sustains damage to his brain that causes the left side of his body to be weak. When a stroke occurs, blood flow decreases in a specific part of the brain, which can result in permanent damage to that area. Where this damage occurs determines what kinds of deficits a person might have. For example, if someone has a stroke in the speech area, he may have trouble speaking, whereas if he has an injury to the motor cortex (where movements are initiated), he may not be able to move parts of his body.

For Sam, the part of his brain that controls movement was damaged—that's why he couldn't walk. There was nothing wrong with his muscles or other parts of his brain. Rather, it was that some of the nerve cells involved in moving the left side of his body had died. They would never come back and could not be used again. This means that for Sam to walk again, he had to “teach” another