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MEMORY

What can I do to improve my memory right away?

How do I keep a big chunk of information in my memory?

How can I easily access this information when I need it?

A few years back, I walked into our office early in the morning, before anyone else had come in. The phone started ringing, so I went to answer it. Immediately, a woman's effusive voice sang out from the other end.

"I love you, I love you, I love you!"

Trust me that this was not a common response I received to answering a call.

"Whoa," I said. "Who is this?"

"It's Anne. I took your course." She then quickly declared, "I found it!"

Okay, she had me. "What did you find?"

"I don't know what it is, but I've been doing all of these exercises you've been teaching, and I've started to remember things. Even when I'm not using the strategy, I'm remembering names and conversations."

So, she hadn't answered that question, either. I realized I was just going to have to let her tell her story the way she wanted to tell it. Over the next few minutes, I learned that a few years earlier she'd been given a family heirloom from her grandmother. It was a necklace that had been passed down from generation to generation, and her grandmother skipped over her own daughter and her three older sisters to bequeath the necklace to her. Anne was extremely honored to receive this gift and vowed to be careful with it. There was only one problem: She'd been so concerned about keeping the necklace safe that she'd hidden it somewhere that she couldn't remember. When she realized she didn't know where the necklace was, she started searching, but to no avail. This led to monumental levels of angst and an enormous amount of guilt compounded by her family.

After three years, she'd come to the conclusion that she'd either misplaced the heirloom forever or that someone had stolen it. Then, at 2 A.M. the morning of this call, she woke up out of a dead sleep. She went down two flights of stairs to her basement, ran over to the boiler, moved behind it, and reached into a crevasse there. She pulled out the necklace and nearly died from the relief.

"That's an amazing story, congratulations," I said to her. "I'm curious, though. I didn't teach you how to find misplaced items. That's not one of the things we've covered in our classes."

"Yes, but you did something way more valuable. I don't know what it is, but for the past few weeks I'm just remembering all

kinds of things. Not just in the present, but stuff I hadn't thought about for years.

"Jim, thank you for giving me my brain back."

What Anne was illustrating through her excitement is something I've been sharing with people for a long time. Yes, your brain is an organ. But it acts like a muscle. And it most significantly resembles a muscle in that it's a use-it-or-lose-it device. Our brains stay fit only when we make a concerted effort to keep them fit. If we fail to keep our brains in shape—either through laziness or being overly dependent on technology to do our thinking for us or by failing to challenge ourselves with new learning—it becomes "flabby." Think about it this way: If you have your arm in a sling for six months, you don't come away with a stronger arm. In fact, after you take the arm out of a sling, you're likely to have very little function at all. Your brain is the same way. If you don't exercise it regularly, it might not be at its best when you need it the most. But if you make the effort to keep your brain in top shape, you'll discover that it's always ready to do superhero-level work for you, just as it did for this caller.

YOU CAN ALWAYS RELY ON MOM

Memory is arguably the most important part of the learning process. If you could not remember, then you could not learn anything. There is no knowledge without memory. But why do most people have less-than-ideal memory skills? I think it's because of the way we were taught to memorize things, which was usually through rote memorization. To this day, most schools teach students to memorize by repeating a fact or a quote until it is temporarily burned in, even though people tend to forget this information as soon as they no longer need it and this type of memory rarely leads to mastery of the material being memorized.

Your memory is also one of your greatest assets. It supports you in every area of your life. I challenge you to do anything without utilizing your memory. If you did not have a memory, life would be extremely challenging, to say the least. Imagine waking up each day and forgetting everything you ever knew. You would have to teach yourself how to get out of bed, how to get dressed, how to brush your teeth, how to eat your breakfast, and how to drive a car. That would be quite inconvenient. Luckily you were born with a great memory; you just need to be shown how to use it.

KWIK START

How would you rate your memory right now? What aspects would you like to improve? Take our memory assessment at www.LimitlessBook.com/resources to understand more.

If you're going to perform a major upgrade on your brain, you're going to want to unlimit your memory, as memory is such a fundamental part of most brain function. Since that's the case, let me reassure you with a very important fact: There's no such thing as a good memory or a bad memory; there is only a trained memory and an untrained memory. If you have trouble remembering people's names, making presentations without notes, or

even finding your car keys in the morning, it's extremely unlikely that this is because you're incapable of doing these things. Instead, you just haven't gotten the training.

Joshua Foer is proof positive that memory can be trained. In 2005, Joshua was a journalist who had taken on the assignment of writing about the little-known world of mental athletes. Fascinated by what he saw in elite memorization contests, he wanted to discover more about the participants. To his surprise, he learned that almost every participant he interviewed described themselves as having a poor or average memory before they learned and practiced the principles of memorization. Now they were competing at the highest levels of these contests.

It dawned on Foer that there were no restrictions to memory and that memory can be trained just like athletic skill. He began to practice what he learned. One year later, he returned to the U.S.A. Memory Championship but this time as a competitor. The day of the event, we had lunch together between competitions and marveled at the fact that often what appears to be genius can actually be learned. Later that day, Foer placed number one and took home the trophy. He went on to write the groundbreaking book *Moonwalking with Einstein: The Art and Science of Remembering Everything.*

Why is memory so important if you're going to unlimit yourself? Because your memory serves as the foundation for every action you take now and every one you will take in the future. Imagine what it would be like if your computer had very little storage or had inconsistent access to what it had stored. Most functions would be nearly impossible to perform—you'd start to write an e-mail message, and your computer might or might not have the addressee among your contacts and might or might not remember how to send the message after you'd written it—and the ones that it did perform would take excruciatingly long while your computer figured out how to do it.

While I've likened our brains to supercomputers, we all know that they're so much more than that. Perhaps the most significant difference is our ability to reason, to consider the facts or the situation in front of us, and to act, innovate, or navigate through circumstances based on those facts and situations. The process of reasoning requires us to shift through our rich store of memories, using tools that have proven useful in the past to make informed and productive decisions.

"It is impossible to think creatively into the future without a sense of what is known," writes Dr. Eve Marder, professor of neuroscience at Brandeis University. "We commonly say that we are looking for interdisciplinary and synthetic thinkers who can make connections between disparate fields and see new paths for discovery. I cannot imagine finding those creative leaders for the future among the legions of students who forget everything they have learned because they can 'just look it up.' How does one know what to look up if one has forgotten so much?"[1]

Dr. William R. Klemm, who we met in Chapter 12, gives us five reasons why improving memory is essential:

1. **Memorization is discipline for the mind.** Much needed in an age when so many minds are lazy, distracted, have little to think about, or think sloppily. Memorization helps train the mind to focus and be industrious.

2. **No, you can't always "Google it."** Sometimes you don't have access to the Internet. And not everything of importance is on the web (and a great deal of irrelevant trash will accompany any search). Nor is looking up material helpful under such situations as when you learn to use a foreign language, must write or speak extemporaneously, or wish to be an expert.
3. **Memorization creates the repertoire of what we think about.** Nobody can think in a vacuum of information. To be an expert in any field requires knowledge that you already have.
4. **We think with the ideas held in working memory, which can only be accessed at high speed from the brain's stored memory.**Understanding is nourished by the information you hold in working memory as you think. Without such knowledge, we have a mind full of mush.
5. **The exercise of the memory develops learning and memory schema that promote improved ability to learn.** The more you remember, the more you *can* learn.[2]

I want to emphasize this last point. It's not accurate that your memory works like a container, cup, or hard drive in that once it's full of data no more can fit. It's more like a muscle in that the more you train it, the stronger it gets and the more you can store.

In this chapter, we're going to discuss some tools and techniques designed to train your memory. You will be applying basic principles of the mind and developing your memory in such a way that will make learning (remembering) more natural, easy, and fun. The most fundamental of these, though, is this: always remember MOM, a mnemonic device I created to kick up your memory instantly:

- **M is for Motivation:** The simple fact is that we are considerably more likely to remember things that we are motivated to remember. If someone says to you, "Hey, remember our call tomorrow," you may or may not remember that you've scheduled a call with that person. If instead he says, "Hey, if you remember our call tomorrow, I'll give you $5,000," you will definitely remember that you've scheduled the call. You are overwhelmingly more likely to remember something when you have a strong motivation to do so. So, if you want to train yourself to have a stronger memory, give yourself a stronger motivation to do so. Reasons reap results, so make remembering personal. If you can convince yourself that there's value in retaining a memory, there's a good chance that you will.
- **O is for Observation:** How often do you forget someone's name as soon as you hear it? The reason is likely that you weren't entirely paying attention when you heard that name. Maybe you were looking around the room to see who else you knew. Maybe you were still thinking about a conversation you'd just had. For whatever reason, you weren't entirely present. Most of the time, when we fail to remember something, the issue isn't *retention* but rather *attention*. If you're serious about boosting your memory, condition yourself to be truly present in any situation where you want to remember something.

- **M is for Methods:** Over the course of this chapter, I'm going to provide you with a set of tools that you'll be able to use when you want to remember something. Make sure you're always carrying these around in your mental toolkit, and be sure to employ them to the point where they become second nature.

THE MORE MEMORABLE BAKER

The chances of remembering something increase dramatically if people can attach a reference point to the thing they are trying to remember. A number of years ago, after a study testing peoples' ability to put names to faces, researcher Gillian Cohen coined the name for what came to be known as the Baker/baker Paradox. In the study, participants were shown photographs of faces, offered the names and various details about the people in the photographs, and then asked to later recall the names. The study showed that people had far more trouble remembering last names than they did occupations, even when the last name and the occupation was the same word. So, for example, it turned out to be significantly easier for a participant to remember that someone was a baker than that their last name was Baker.

Let's go back to Joshua Foer a moment for an explanation:

> When you hear that the man in the photo is a baker, that fact gets embedded in a whole network of ideas about what it means to be a baker: He cooks bread, he wears a big white hat, he smells good when he comes home from work.
>
> The name Baker, on the other hand, is tethered only to a memory of the person's face. That link is tenuous, and should it dissolve, the name will float off irretrievably into the netherworld of lost memories. But when it comes to the man's profession, there are multiple strings to reel the memory back in.
>
> Even if you don't at first remember that the man is a baker, perhaps you get some vague sense of breadiness about him or see some association between his face and a big white hat, or maybe you conjure up a memory of your own neighborhood bakery. There are any number of knots in that tangle of associations that can be traced back to his profession.[3]

What the Baker/baker Paradox illustrates for us is that creating associations for ourselves is likely to boost our memories dramatically. The exercises on the following pages are tools along these lines that I have found particularly effective.

RECALLING A GREAT DEAL OF INFORMATION

One of the things I do regularly when I'm speaking to large groups is ask audience members to throw out a group of random words—somewhere between thirty and a hundred—that I will then repeat, backward and forward. It never fails to get an awed reaction from the crowd, but that isn't what I'm looking for. Instead, I do this to get across a key point: that everyone has the capacity to do the same thing.

We've already talked about the importance of memory in performing nearly all brain functions. If you're going to unlimit your brain and therefore unlimit yourself, you need to unlimit your memory. This means training your memory to the point where it can retain a great deal of information and allow you easy access

to that information. What I do on stage with the list of a hundred words might have the immediate impact of a parlor trick, but how I trained myself to do this is through a technique that anyone can use to remember and access lots of information. Maybe in your case it's the specifications for your entire line of products. Or maybe it's a long string of mathematical formulas. Maybe it's the directions to all the stops on your swim-practice carpool. Whatever it is, this tool can help.

For the sake of this exercise, let's talk about how to memorize a list of words. The technique will be the same regardless, but it'll be easier to explain it to you if we can focus on a particular thing.

Below we have provided you with a list of simple words. Your assignment is to memorize them in the order they are given. Spend no more than 30 seconds looking at the list, then flip the page over. Good luck!

Fire Hydrant	Diamond
Balloon	Knight
Battery	Ox
Barrel	Toothpaste
Board	Sign

What was the method you used to remember this list? Did you repeat the words in your head over and over? For instance, were you saying to yourself "fire hydrant, balloon, battery, fire hydrant, balloon, battery, fire hydrant, balloon, battery, barrel, etc." Did you find that you needed to repeatedly say the words over and over again, until they stayed in your head? Did you try to see the words as pictures in your mind? Most people use one or a combination of the first two methods described. The process of repeatedly saying or writing information down to remember it is called repetition learning, otherwise known as rote learning.

You may have used rote learning in the second grade to remember your multiplication tables. You would say to yourself "seven times seven is forty-nine, seven times seven is forty-nine, seven times seven . . . ." Or you may have written it out "7 × 7 = 49, 7 × 7 = 49, 7 × 7 = 49," and would continue to fill up your sheet of paper. This is also most likely the method you used in elementary school to learn how to spell. Your teacher may have asked you to spell a word like *chair* 50 times on a piece of paper. What was happening was your natural learning ability was being stifled. You bored your mind continually with this method until it finally gave up and said *You win! For the 100th time, Columbus landed in 1492, just no more of this chanting!*

Most people find rote learning to be a very tedious and boring process. It taxes your mind and is extremely ineffective for remembering most things. We know that as much as 85 percent of the information you take the time to remember in this fashion is lost in only 48 hours. That is why some students find the need to cram, because they know that the material will be lost in a very short period of time.

ELEMENTARY LEARNING

One of the reasons rote learning is inefficient is because it only

involves a small part of your brain. You're using a more analytical part of your brain to process information and store what you need to learn. By implementing rote learning, you only engage part of your mind and an even smaller portion of your potential.

In the traditional education system, you probably learned this way in such topics as:

- **History:** "Calvin Coolidge was the 30th president of the United States, Coolidge 30, 30 Coolidge . . ."
- **Chemistry:** "Glucose C6H12O6, Glucose C6H12O6, Glucose C6H12O6 . . ."
- **French:** "*Comment allez-vous* means 'how are you?' *Comment allez-vous* means 'how are you?' *Comment allez-vous* is 'how are you?' . . ."

The list goes on and on and on and on. The question you must ask yourself now: "Is the way I learned in elementary school the best method for me to learn today?" The answer is most likely no. In school, they taught you the three Rs: reading, 'riting, and 'rithmatic (too bad spelling wasn't one of them). I always thought the fourth R should have been recall. Your requirements for learning have changed a lot over the years. Repetition learning had some decent results when you were younger, but in today's world, it will leave you drowning in information and mental fatigue. (Note: The word *rote* literally means "an unthinking repetition or mechanical memorization.")

In this section I'm going to show you the skills to remember more effectively than you ever thought possible. These skills will help you to replace the feeling of hoping you'll remember with the feeling of confidence in knowing that the information you possess will be available, whenever you need it.

Now, take a minute and, without looking back, try to recall the list in the order it was presented. Write down as much as you can remember. Take a minute and do this now.

_____

_____

_____

How did you do? If you are like most people, you probably were able to retain a few of the words on the list.

KWIK START

Now let's try something else. Take a minute and stretch. Take a few deep breaths. Clear your mind and relax more with every breath that leaves your body. Just take a moment and relax. When you are done, continue.

Next, make sure you are comfortable and imagine you're standing next to a giant fire hydrant, the biggest one you've ever seen. Now, attach a bunch of balloons on top of the fire hydrant. There are so many balloons that it takes the hydrant out of the ground so it floats up high in the sky. Then suddenly it is hit with a load

of batteries and explodes. The batteries are being launched into the sky in large barrels. The barrels are being thrown up with a wooden board like a seesaw. The board is being balanced by a large diamond, a big brilliant sparkling stone. Then a knight in shining armor takes the diamond and runs away. He's quickly stopped by an ox. The only way to get through is to brush the teeth of the ox with toothpaste. The ox moves aside and reveals a big neon sign with the word *Congratulations* on it, and then there is a huge explosion.

Now take a minute, close your eyes and review this little story. You may read the story again if you need to. Do this now before continuing.

KWIK START

Without looking back, write the story down.

As you may be aware, we turned your list into a story. Now go through the story in your mind and list as many of the words as you can remember. Check your answers and write down the number you got correct.

How did you perform the second time? If you are like most students, you were able to recall more of the words than you did previously. The amazing thing is that once you start training your memory in this way, you can use this tool to memorize vast amounts of information. I've used this technique to help actors learn all their lines in a script, to help students memorize the periodic table, and to help salespeople speak about a product with a level of granularity that made it seem as though they'd engineered the item themselves. Remember that there's no such thing as a good memory or a bad memory, only a trained memory or an untrained memory. Employing this tool regularly will give you the kind of training that you can access in all kinds of situations.

YOUR ACTIVE FOCUS IN MEMORY

This is a very important concept: Most people approach learning as a passive activity. They encounter information in books, notes, or lectures and if the material is absorbed, great! But if it is not, they feel that there is nothing they can do. This passive outlook is the hit-or-miss approach. It holds that if the information sticks, it's more a result of luck and repetition than focus and skill. By taking a more active approach to learning, you will have greater results and the satisfaction that comes from involvement and personal awareness. Learning passively is weak; active learning is strong.

> “The secret of a good memory is attention, and attention to a subject depends upon our interest to it. We rarely forget that which has made a deep impression on our minds.”
>
> —TYRON EDWARDS

Visualization

Your visual memory is very powerful. By seeing the pictures a story paints and not just the words that represent those pictures, you create a stronger means by which to remember. Thinking is done through the use of pictures. Do this now: Think of your bed. What did you visualize? Maybe you saw a queen-size mattress, with a wooden headboard, navy-blue sheets, and giant pillows. You probably did not see the words *navy-blue sheets* and *giant pillows* in your mind; you saw pictures of them. This is how your mind thinks. If you doubt this, then ask yourself, do you frequently find yourself dreaming in words? Probably not. Remember a picture is worth a thousand words!

Association

This is the key to memory and all of learning: In order to learn any new piece of information, it must be associated with something you already know.

This is worth repeating. To remember any new piece of information, you must associate it with something you already know. You have done this all your life; you just might not have been aware of it. Here's a simple test. What comes to your mind when you think of a cherry? Perhaps red, sweet, fruit, pie, round, seeds, etc. These are words and pictures that you have learned to link to a cherry. You associated something you knew to something you did not know. You use association to ride a bike, eat your food, have a conversation, and to learn to do anything. In the same way, by making a story out of the words on your list, you associated them consciously, for easier recall. Your mind is constantly making countless associations every minute, most of them without your conscious awareness. This is how you learn. Do you have a song that reminds you of a special person? That memory is an association. Do you have a smell that reminds you of a time in your childhood? That memory is an association. Why not use this information and make associations consciously to learn more effectively?

> “All thought is a
> feat of association:
> having what’s
> in front of you
> bring up something
> in your mind that you
> almost didn’t know
> you knew.”
>
> —ROBERT FROST

Emotion

Adding emotion makes something memorable. Information by itself is forgettable, but information combined with emotion becomes a long-term memory. When we add emotions to something, we make it adventurous, we make it action-filled, we make it humorous, and we're much more likely to remember it.

Location

We are really good at recalling places because as hunter-gatherers, we didn't need to remember numbers and words, but we needed to remember where things were. We needed to know where the clean water was, where the fertile soil was, where the food was. If you can associate something with a place, you're more likely to remember it.

These are some of the keys to having a great memory; the rest of this chapter will be dedicated to showing you specific techniques and applications you can use in different situations. If you did not have much luck with the memory story, don't worry. This is understandable, you may just need a little practice. Most people have not used their imaginations since they were children. You may want to review the story a few times as it will be a good workout for your creative mind. Do this now.

Notice that you can also go through the story backward; the associations can give you the list in any order. Practice this and see for yourself.

You should be truly amazed. For most people, using rote methods, it takes anywhere from 10 to 30 minutes to memorize this list and with only very temporary results. However, you'll find that this story, which took you no more than a minute to learn, will be available for you to recall days or even weeks from now without reviewing it once. This is the power of working smart and not hard. This is the power of your imagination. This is the power of your mind. Let's try it again.

A KWIK MEMORY EXERCISE

Ask a friend to give you a list of 10 random words. Or you can make a list yourself: To make this as random as possible, grab the nearest piece of printed media available to you, whether it's a book, a newspaper, a magazine, or a flyer from your local supermarket. Use the first substantive words in the first 10 paragraphs you see (in other words, don't use things like *I, the, when,* etc.), making sure not to use any word more than once. Write these down.

Now flip over the paper you wrote these words on and try to write the list again, in order. Check what you wrote against the original list. How did you do? You probably didn't remember all 10, but you probably didn't forget all 10, either. That's instructive, because genius leaves clues, by which I mean that your innate intelligence teaches you about your intelligence. There was a method that allowed you to memorize what you did, and you can access that to move to the next step.

Tell yourself out loud which of the words you remembered and why you think you remembered those words. Doing so will help you to understand how you memorize things. For example, there's a good chance that you remembered the first word and the last word. This is that common phenomenon we discussed back in Chapter 4 known as primacy and recency, where people

tend to remember the first thing as well as the most recent thing they heard in any given situation. Which other words did you remember? Do these words have anything in common, such as that they all start with the same letter or they're all action words? What does this tell you? Were the other words you memorized organized in any way? Did they evoke any kind of emotion in you? Was there something unique about any of the words you remembered?

What you've likely learned by this point is that the words you were able to remember on your first pass had certain qualities about them. The words you didn't remember failed to have any quality that resonated with you. So, let's create a process where every word has a memorable quality.

- Tell yourself a story using these 10 words, moving from one word to the next. You're not trying to win a literary competition with this story, and it doesn't matter if the story makes much sense. What's important is that you provide some kind of imaginative detail for all the words on your list (for example, if one of your words is *outside,* imagine that you're in a vast field) and that you "link" your words in the story in the order in which they appear on your list by creating an image for each. Remember, the more emotional and exaggerated they are, the better you will recall.
- Now, on a separate piece of paper, write down the list again, using the story you created to remind you of the words and of the order in which they appeared. How did you do this time? In all likelihood, you did better, though there's a good chance you still didn't get all of them.
- Now write down the list again (not looking at any previous versions of the list you created), but this time write it down backward. You'll need to access the story you invented in a different way in order to do this, but this is really going to help lock these words down for you.

At this point, you've probably memorized most if not all the words on your list. At the same time, you're likely wondering how this is going to help you remember all the details in a presentation you're giving.

DELIVERING A GREAT DEAL OF INFORMATION WITHOUT NOTES

As we've discussed, your memory is fundamental to nearly everything you do. There's really no way to unlimit yourself without having a well-trained memory, because memory governs your ability to reason, to calculate possible outcomes, and to serve as a resource to others. And sometimes you just need to be able to deliver a significant amount of information to a person or a group of people at once. This might take the form of delivering a report to your board, giving a speech to an assemblage, sharing your expertise in a subject in front of your class, or any number of other situations. And in many of these cases, it's critical that you be able to do this without having any notes in front of you, because the notes would suggest that you are less well versed in the material than you should be.

I've been teaching business executives, students, actors, and others a time-honored technique for making their presentations without notes. And when I say time-honored, I mean this quite