PENN & TELLER

TEACH THE ART OF MAGIC

MASTERCLASS

CHAPTER ONE

MEET PENN & TELLER

Penn & Teller have been performing together for over forty years. In the late 1970s, they were part of a trio called The Asparagus Valley Cultural Society that performed in several cities around the country, including a three-year run in San Francisco.

They started performing as a duo in 1981, and in 1985 they did their first off-Broadway show. This was quickly followed by a series of six appearances on *Saturday Night Live* and over twenty performances on *The Late Show with David Letterman*.

Since then, they have had national tours, two successful Broadway runs, hundreds of TV appearances, including several of their own TV specials and series in the United States and the UK, including *Bullshit!* and *Fool Us*, which is currently in its sixth season. Having performed at the Rio All-Suite Hotel and Casino since 2001, they are now the longest-running headlining act in Las Vegas history. They have written three books that teach magic and have a popular magic kit called "Fool Everybody."

All of which is our way of telling you that, over the years, they've thought about magic a lot. And they have a lot to share with you, no matter how much or how little experience you have had with magic.

No matter your personality, no matter your strengths and weaknesses, you can amaze people with magic. It doesn't matter if you're young or old, silly or serious, bombastic or subtle, there is an area of magic perfectly suited to your style and interests. Magic is a diverse art form that draws upon all branches of human knowledge: physics, chemistry, psychology, mechanical engineering, optical illusions, mathematics, art, architecture, nearly all the performing arts (acting, comedy, mime, dance, music), and many more. Which means there is an entry point for almost anyone and a never-ending spectrum of things to explore.

If you've never done any magic in your life, this is a good place to start. You will learn tricks that you will be able to perform and surprise your friends and family.

If you already do some magic, you'll be able to incorporate the ideas Penn & Teller discuss into the tricks you already do. And maybe you will learn a trick or two you're not already familiar with.

Even if you have no intention of ever performing magic, you will still get a kick out of this MasterClass. The thinking and psychology at play in magic are interesting in and of themselves, and can be applied to other areas of your life. Learning about magic helps develop an understanding of how people think and knowledge of human perception. It helps develop unorthodox thinking and unconventional problem solving, as well as discipline and creativity. In the age of information, it's easy to forget that there is a difference between information and knowledge. With politicians, "news" organizations, advertisers, clergymen, scam artists, social media platforms, and unethical "friends" attempting to deceive you almost continuously, learning magic can help. The study of the art form devoted to deception has a way of sharpening one's ability to recognize deceptions that are less benevolent.

If you are new to magic, we have to warn you: when you are first shown how a magic trick works, it's almost always disappointing. The secrets behind magic tricks are usually unimpressive. Very little magic relies on technology newer than theatrical lighting, or is more sophisticated than something you could build in a high school shop class.

But when you start to study magic—even if you don't perform any of it—and you start to get a sense of everything that goes into it, from the history of the moves or plots, to the technology that is incorporated, the physical skill required, the acting, and psychology, the next time you see a magic show, you will appreciate it on a much deeper and richer level.

You will need the following simple items for the tricks that will be taught in this MasterClass.

PROPS LIST

- 2 SMALL TINFOIL BALLS
- 2 LARGE TINFOIL BALLS
- 1 MAGIC WAND
- SOME GRAPES
- 3 PLASTIC CUPS
- SOME LARGE COINS OR QUARTERS
- 1 DRINKING GLASS
- 1 NEWSPAPER OR STURDY NAPKIN
- 1 SMALL PIECE OF PAPER
- 1 PENCIL
- 1 ASH TRAY
- 1 LIGHTER
- 2 DUPLICATE DECKS OF CARDS
- ONE 4-6 FT. PIECE OF ROPE
- SCISSORS
- AN AUDIENCE

CHAPTER TWO

SLEIGHT OF HAND: THE FRENCH DROP

The fundamental discipline of magic is sleight of hand. Making an object vanish is *the* quintessential magic trick. Just ask Teller how often some asks him, "Can you make this [random object] disappear?" Once you learn sleight of hand, there is an almost unlimited number of things you can do. With small objects like balls or coins, the most common method used to effect a vanish is referred to as a false transfer. A false transfer is when you pretend to move an object (such as a small ball) from one hand into the other, but secretly retain it in the original hand. And the French drop is usually the first false transfer a magician learns.

THE FRENCH DROP

EFFECT: *You pick up a small ball and hold it in your closed hand. After you touch it with a magic wand or speak a magic word, you open your hand and the ball has vanished.*

NEEDED: ***A small ball about one inch in diameter****—the perfect size will vary, depending on the size of your wand, but one inch works well for almost anyone. It doesn't matter what the ball is made out of. It can be rubber, wood, plastic, or even a rolled up piece of aluminum foil. Rolling up approximately four inches of a one-foot roll of aluminum foil will give you a ball that is the right size.*

THE REAL ACTION

While it seems that this is a very simple sleight, there are many details to get right if it is going to be deceptive. So it will be broken down into distinct actions, so you can examine (and practice) each of these actions one at a time. First, let's examine the real action that the French drop simulates.

STEP ONE: Pick up the ball with the right fingers and hold it in your palm-up hand between the index finger and thumb (figure 1). Make sure you take it with those fingers when you first pick it up, so that you do not have to readjust it in the hand when you first display it to the audience.

Figure 1

STEP TWO: The right hand moves toward the left hand. Your left fingers, which should look relaxed and naturally curled, reach over and take the ball from the right hand at the tips of the left fingers (figure 2). Note that the left hand approaches from the left, with the back of the hand toward the audience, and the left thumb merely goes behind the ball to grasp it. The right hand stops as the left hand closes into a loose fist around the ball and moves away to the left and turns palm up (figure 3, ball exposed for clarity). The left hand should not squeeze the ball too tightly.

Figure 2

Figure 3

As the left hand takes the ball and moves away, the right hand turns inward slightly, relaxes, and drops at the wrist. The fingers are curled slightly, but the hand does *not* close into a fist. It is empty, and should look empty. The thumb and fingers stay separated, leaving an "empty space" where the ball just was a second ago. Notice that only one hand is moving at a time. The right hand moves toward the left hand. When the hands meet, the right hand stops, then the left hand takes the ball and moves to the left, continuing the movement the right hand started.

Do this action over and over. Pay close attention to what it feels like to take the ball into your left hand. All the details described above are very important. It is recommended you stand in front of a mirror and study what it really looks like (recording yourself and watching the video is helpful, too).

Note: This move is often done poorly by having the left hand approach from behind the right hand, with the palm of the left hand toward the audience and the left thumb inserted below the ball into the opening between the right thumb and index finger (figure 4). This is not a natural way to take the ball, and will look suspicious to an audience—you've almost certainly seen magicians do it this way, but it is poor technique. Again, the right hand moves to meet the left hand, which has its palm toward you, and the left thumb goes behind the ball, not underneath it.

THE SIMULATED ACTION BROKEN DOWN

Here are the steps that comprise the French drop (the fake action which simulates the real action described above). It will look like you are taking the ball into the left hand, but it will be secretly retained in the right hand.

The Right Hand's Actions:

STEP ONE: Pick up the ball with the right fingers and hold it in your palm-up hand between the middle finger and thumb as you did above, with the back of the hand toward the audience (figure 1, again). The hand moves to the left and stops.

STEP TWO: Release the ball with your thumb and let it drop into the right hand, where it is caught by the curled fingers (figure 5). The hand is not straight up and down; it is tilted slightly palm upward so the ball doesn't drop straight through the hand. There should be no movement of the fingers as you catch the ball. The hand should not close into a fist; it is supposed to be empty. Holding the ball in your fingers like this is called palming (specifically finger palming—and yes, that's a phrase that makes no real sense). Make sure your fingers are held together, so that the ball cannot be seen between your fingers. The gaps in the fingers through which the audience can see into your hand are what magicians

Figure 4

Figure 5

call "windows." (Magicians love fun lingo like this.) Windows are usually bad, so you have to be careful to keep your fingers together, without making them look too stiff or tense.

STEP THREE: Immediately after dropping the ball into your fingers, the right hand turns inward slightly, relaxes, and drops slightly at the wrist, as in the real action (figure 6). Don't close the hand into a fist, and leave the "empty space" between the fingers and thumb.

Figure 6

Do this action over and over. Learn to catch the ball without moving your fingers or closing your hand into a fist. The hand should look empty.

The Left Hand's Actions:

STEP ONE: You'll practice this with no ball. Pretend to hold the ball in your right fingers—that is, hold your fingers as in figure 1, except with no ball. The left hand pretends to take the (non-existent) ball (figure 2 again, except with no ball) at the fingertips, then moves away, and closes into a palm-up fist (figure 3, again except with no ball).

There should be a bit of little tension in the left hand. Think about what it was like to actually hold the ball in the hand when you did the real action. Try to convey that here. Don't close the fist too tightly, it is apparently holding a ball.

THE FRENCH DROP REASSEMBLED:

Now you will combine all the above into the actual sleight.

STEP ONE: Pick up the ball with the right fingers and hold it in your palm-up hand between the middle finger and thumb (figure 1, again). The right hand moves toward the left hand.

STEP TWO (THE FAKE TAKE): You are going to pretend to take the ball into the left hand. When the hands come together, the right hand stops, and just as the left fingers cover the ball, let the ball fall into the right hand. Close the (empty) left hand into a fist, and move it to the left (figure 7). Follow the left hand with your eyes. Your focus should be where the ball is supposed to be.

Figure 7

STEP THREE: As soon as the left hand apparently takes the ball, turn the right hand slightly inward, and drop it at the wrist, relaxed, and apparently empty (figure 8). Do not close the right hand around the ball.

Figure 8

STEP FOUR (THE VANISH): If you open your left hand, it will be seen empty, and the ball will have "vanished". When learning this (or any sleight) alternate between doing the real action and the simulated or fake action, so that they look and feel the same. Go back and forth and execute the real action, then the fake action, over and over again.

MOTIVATING THE FRENCH DROP

The French drop by itself, out of context, is not very deceptive, so you will add a prop, some context, and the most important element—motivation. The French drop is only deceptive if it is motivated. In other words, there needs to be a reason *why* you are taking the ball from your right hand into the left. Otherwise, it will be obvious that you're only doing it because the trick requires it, and the audience will be much more likely to realize it's in your other hand, and bust you.

The prop you are going to add is a magic wand. (This can be something you buy from a magic shop, a stick you've painted, or even a wooden rod from a coat hanger.) A magic wand is more than decoration. It serves several functions, but first and foremost, it can add a playful depiction of magic power, making you look like a magician. With your magic wand, you help the audience make believe that the wand—instead of your secret moves—is causing the magic to happen. A wand can also give you motivation for moves like the French drop.

Tuck the wand under your left arm and hold it there. Pick up the ball in your right hand as described above. Your motivation for the French drop is that you need to use the wand to make the ball vanish, but the wand is under your arm. In order to free up your right hand to take the wand you have to take the ball into your left hand.

Do the French drop, and as the left fist is moving away with the "ball," the right hand grabs the wand and removes it from underneath your arm.

Now do something with the wand to indicate the magic is happening. This can be something simple like tapping the left fist, or running the end of the wand across the left knuckles or waving the wand around the fist. The following is particularly effective. Put the outer tip of the wand into the left fist, and then jerk your hands as if a burst of electricity has gone through your hands. Give this moment a "Pow!" by imagining it is burning or painful or gives you a shock. This is the magic moment—the precise second the magic event (the vanish of the ball) happens. Now open your left hand to show it is empty.

Here is the final (and most important) function the wand serves. It is an essential piece of misdirection, and it's actually called the wand principle. After the ball has "vanished" it is, in reality, in your right hand. Secretly palming an object in your hand (such as a ball after a French drop) is very common when you do magic, and the best way to disguise the fact that you're secretly holding an object the audience is not supposed to know about is to hold an object the audience *does* know about—such as a magic wand!

Without the wand, it would soon become obvious that your right hand still has the ball, because your fingers are curled around it. But if you're also holding a wand, it is not suspicious at all. The right hand looks like it is curled because it is holding the wand, and not like it is holding a ball and a wand.

FINAL NOTES: A magic wand can be a variety of things. It doesn't have to be a foot-long piece of wood. A pencil, pen, Sharpie marker, or lipstick will all work. Magicians have been known to wave half dollars, sprinkle salt on their fists, or spark cigarette lighters to make objects vanish. If you use one of these more unconventional "wands," rather than tucking the "wand" under your arm, have it sitting on the table to your right. Do the French drop, then reach for it with your right hand and use it to create a magic moment.

This sleight happens while you are doing a mundane action—taking a ball from one hand into the other. It should not be overly emphasized, framed, or hurried. It's an unimportant action that no one should notice, and it happens in between more important actions, such as the initial display of the ball, and the "magic moment" when you insert the wand into your fist. There should be focus and emphasis on those moments and relaxation and no focus on the moment when you are doing the sleight.

GRAPE HEAD

There are many, many things you can do with a French drop. If you hide ("palm") a coin or a small piece of candy in your left hand before you do the french drop, then—after you touch the hand with the wand—you can open that hand to show that the ball has apparently transformed into money or a snack. Here is a fun way to use it for young relatives or friends, while you're having lunch or just hanging out where there happen to be some grapes.

EFFECT: *You slam a grape against the top of your head. Instead of splattering, the grape pops out of your mouth.*

NEEDED: ***Two grapes.***

PREPARATION AND SETUP: *While no one is looking, take one grape and put it into your mouth. Obviously, since you now have a grape in your mouth, you will do this quick trick without speaking.*

THE TRICK / STEP BY STEP: With your right hand, pick a grape from a bunch on the table, bowl, or wherever they reside. Hold the grape between the right middle finger and thumb as in figure 1 above.

Pretend to take the grape into your left hand, but actually execute a French drop. Raise your left hand above your head, and smack it down onto the top of your head. Everyone will think you've splattered it into your hair (or onto your bald pate, as the case may be). Immediately lift your left hand to show there is nothing there, and pop the grape out of your mouth, as if it somehow traveled through your cranium.

CHAPTER THREE

CUPS AND BALLS

The Cups and Balls routine is often referred to as the oldest trick in magic and, unlike most things magicians say, that might actually be true. Versions of the Cups and Balls exist in virtually every culture that has magic as a performance art. It has a glorious history, and it is said that during the "Golden Age of Magic" (roughly 1880 – 1930) magicians were judged by their performances of the Cups and Balls. Most often Cups and Balls routines are performed with three cups and three balls, but here is a fun routine that seemingly uses just one of each. As in virtually all Cups and Balls routines, there is an additional ball that the audience is unaware of. The secret use of duplicate objects is a very strong principle of deception.

EFFECT: *You're seated at a table, with an inverted cup before you. Twice, you make a small ball vanish from your hand and appear underneath the inverted cup. You offer to explain how the trick is done. You confess that it uses two balls. You lift the cup and underneath it a huge ball has materialized. Then with a tap of your magic wand, a second huge ball appears underneath the cup.*

NEEDED:

- ***An opaque cup of some sort.*** *This can be a coffee mug, Styrofoam cup, opaque drinking cup, or a metal magician's cup, which can be purchased at a magic shop.*

- ***Two small, identical balls, approximately one-inch in diameter.*** *They can be rubber, wood, plastic, or (as recommended in Chapter 3) rolled up pieces of aluminum foil. Rolling up approximately four inches of a one-foot roll of aluminum foil will give you a ball that is the right size.*

- ***Two large balls.*** *The ideal size will vary, depending on the size of your hands and the size of your cup (each ball needs to be able to fit inside the cup). Two-and-a-half inches will work for most people. You probably don't want the balls to be smaller than two inches or bigger than three inches. Rolling up approximately two-and-a-half feet of a one-foot roll of aluminum foil will give you a ball that is the right size. The two balls do not necessarily need to be identical. In fact, the second one can be a piece of fruit, like a lemon or small apple. Magicians call the large balls in tricks like this "final loads."*

- ***A magic wand.***

PREPARATION AND SETUP: *You need to be seated at a table. If you're wearing a jacket or blazer you can begin with the final loads in your right jacket pocket; if not, just put them in your lap. Place the cup, one of the small balls, and the wand onto the table. Take the other small ball and conceal it in your right hand in finger palm (see Chapter 3: Sleight of Hand). It is held by the little finger, which curls around it.*

THE TRICK / STEP BY STEP: With your right hand, pick up the wand and display it to the audience. Make a comment about it: where you got it or the power it possesses, etc. You are utilizing the wand principle here (see Chapter 3: Sleight of Hand) to conceal the ball you have hidden in your hand. Place the wand under your left arm and hold it there.

With your left hand, pick up the cup and casually display it, letting the audience see it is empty. Make a comment about it if you'd like. Place the cup mouth down into the right hand, so that the rim of the cup is right above the finger-palmed ball (figure 1). As the right hand places the cup down onto the table, secretly slip the ball under the cup. This is called "loading."

Figure 1

With the right hand, pick up the visible ball, and do a French drop (see Chapter 3: Sleight of Hand). With the right hand, take the wand from under your arm, and use it to make the ball vanish. Tap the cup with the wand. With your left hand lift up the cup to reveal the ball.

You are now in an interesting position, almost identical to the situation you were in at the beginning of the routine, and therefore you can repeat this entire sequence, as follows:

Place the wand under your left arm. Place the cup mouth down into your right hand directly above the ball concealed there (figure 1, again), then set the cup down onto the table, secretly loading the concealed ball under it.

With your right hand, pick up the visible ball, and once more, do the French drop. Take the wand into your right hand, and vanish the ball, then tap the wand against the cup. With your left hand, pick up the cup, and show that the ball has again magically materialized there. Place the wand underneath your left arm. Place the cup mouth down into your right hand (above the ball concealed there), then set the cup down onto the table, secretly loading the concealed ball under it.

You could repeat this vanish/reappearance sequence over and over again, but twice like this is enough. Repeating a trick just gives the audience another opportunity to catch on.

After the second time say, *"I'm going to put the ball away."* With your right hand, pick up the ball and put it into your right pocket (or lap if that's where you have the final loads). Pick up one of the final load balls and hold it in your right hand, held in place by your curled little finger, and keep the hand under the table.

With your left hand, pick up the cup, and show that the ball is once again under the cup. While the audience is reacting to this surprise, the left hand (with the cup) moves back to the edge of the table, where the right hand (with the final load) comes up, and the cup is placed mouth down into the right hand, directly on top of the final load ball (figure 2). Your (implied) motivation for placing the cup into the right hand is that you want to pick up the small ball with the left hand; in order to do this, you have to free up your left hand by placing the cup into the right hand.

Figure 2

As your left hand picks up the small ball, the right hand places the cup (with the final load concealed under it) onto the table. This is the same as the load move you have been doing, except the ball is bigger.

Say, *"I thought I got rid of this."* Take the ball into the right hand, and place it into your pocket (or lap if that's where the second final load is.) Let go of the small ball, and grab the second final load, holding it in the right hand.

Say, *"Would you like to know how I did this trick? Well, I have a confession to make. I used an extra ball. But I didn't think you'd mind..."* With the left hand, lift up the cup to reveal the large ball. *"...because this one is bigger!"* During this moment of surprise, you load the second final load into the cup (figure 2, again) and set it onto the table, in the same way that you loaded the first one.

Say, *"But that's not the real surprise.* This *is the real surprise."* Lift up the cup and reveal the second large ball.

FINAL NOTES: Every time you reveal a ball under the cup, it creates a moment of magical surprise. During these moments, the audience lets its guard down, and you exploit these moments of relaxed attention to cover the next move (such as loading one of the final load balls).

Think about what objects you can use to do this trick spontaneously. If you're performing at a picnic, perhaps you could use cherries for the small balls and apples for the final loads. If you're at a coffee shop, perhaps you'd use a paper coffee cup and rolled up napkins, with a coffee stirrer for a wand. Look around and see what objects are in the world waiting to be incorporated into your magic performance.

Also think about the story you'd like to tell with this trick. Why are the balls appearing under the cup? Is there a scientific explanation? A supernatural explanation? Is it there something special about the cup? The balls? The wand? Or maybe you'll do it silently like Teller and keep the spectators wondering what you're thinking.

PRACTICE DRILL: Practice the load move with both the small balls and the final loads. Have a ball palmed in your right hand. Pick up the cup with your left hand. Transfer the cup to your right hand, and set the cup onto the table, loading the ball underneath the cup. Practice this over and over so that there is no hesitation or extraneous finger movement.

CLEAR CUPS AND BALLS

Back in the 1970s, in his street act, Teller did the Cups and Balls with pewter goblets. One day, he and Penn were sitting in a diner, and Teller was messing with Cups and Balls moves, using rolled-up napkins and empty water glasses—a lifelong habit. He placed one ball on top of an inverted drinking glass and he had a second ball secretly palmed in his right hand. He used his right hand to tilt the glass forward so the first ball would fall into his left hand, while he simultaneously loaded the palmed ball under the glass. This is a standard move with Cups and Balls.

As he did this, he and Penn realized a wonderful thing: The ball falling off the glass was such a strong point of focus that the second ball (which was being loaded at the same time) was almost impossible to notice. The misdirection was so strong that what was visible to the eye was virtually invisible to the mind. That phenomenon of attention being diverted by a very natural action seemed profoundly amazing. They got excited by the intellectual concept of doing something where the eye could see the moves, but the mind could not comprehend them. So they developed a four-handed Cups and Balls routine using clear plastic cups. To their delight, they found that with clear cups, the effect was even more amazing (you can see a performance of it in this Chapter.)

Of course, it would have been pretentious for them to say, "Note how you can see the secret action and the ostensible action at the same time! Isn't that an interesting counterpoint?" And they didn't want to present it smugly, either: "Look how clever we are! We can fool you even with clear cups!" Instead of shoving it down the audience's throats this way, they thought it would be more polite and funny to let the audience realize on their own that they'd been fooled. So they presented it as though it were an exposé. Penn's patter announced that they would expose the trick, and they allowed the audience to notice that Penn & Teller had, well, failed in their exposure.

People started asking them what magicians thought of the "exposure." Naturally, they claimed magicians were terribly upset. Of course, most magicians noticed that the audience was no wiser after the "exposure" than before and that a supposed hatred of magic was a departure point for much of their comedy.

But Penn can be very convincing. Some magicians actually believed what Penn said, instead of what they saw with their own eyes. And when Penn told them they were outraged, they believed that, too. This little tempest in a top hat was good for Penn & Teller, because the press amazingly picked it up as "news." The media were actually paying attention to entertainers arguing philosophically on the ethics of make believe! Newspapers, magazines, and TV started to notice Penn & Teller, and before they knew it their career was taking off and they were headed for off-Broadway.

CHAPTER FOUR

WHAT IS MAGIC?

There are two broad approaches to magic. Some magicians are mostly interested in fooling people. They love figuring out how people think, and what kind of elaborate machinations are necessary to make something seem like what it is not. This is the kind of magician Teller is. And some magicians, like Penn, are more interested in manipulating objects. Penn is most interested in the part of magic that is most like juggling: the flourishes and techniques and difficult moves used to manipulate cards and other objects.

What both approaches have in common is acting. As you get proficient at magic, you will get good at a very specific, complex kind of acting. There are two levels of reality in any magic trick. There is the reality that you are apparently presenting to the audience, and the genuine, hidden actions that you are executing. A large portion of your brain is concerned with secret actions and reality; simultaneously, you must convey none of that with your attitude or demeanor. You must convey one reality while engaging in a different one entirely.

In addition to acting, practicing magic will teach you about storytelling, assumptions, and the way people perceive the world. You often have to conceive a story, write a script, create a character, and even invent your own special effects. Jean -Eugène Robert-Houdin, often referred to as the "father of modern magic," famously said that a stage magician is an actor playing the part of a sorcerer. Magic, even when performed for family members at the kitchen table, is a form of theatre. A magic trick can be thought of as a short play that simulates an impossible event, a violation of the natural laws of the universe. Like a "real play," there are characters, a story, and a series of events. There is a climax, which fulfills, subverts, or exceeds the audience's expectations.

You might be surprised to learn that there are no real secrets in magic. Magic tricks are done the way they have to be done, and if you were to devote enough thinking to it, you could figure out every magic trick Penn & Teller do. The big secret in magic is that there is no big secret, just a lot of little secrets. Inventor and author Jim Steinmeyer takes an even more extreme view. He has written, "Magicians guard an empty safe." The secret to a trick is rarely more interesting or diabolical than a duplicate card, a piece of black thread, or a gimmick hidden in your hand. When non-magicians learn how a trick is done, their reaction is always, "That's it?!"

The real art is in the finesse with which you handle the gimmick, how the thread is precisely concealed, or the subtle way the duplicate card is used. Magic is a very sophisticated art form. It's rare that the duplicate cards, threads, or gimmicks themselves deceive people. It's the magician utilizing those props that leads the audience to deceive themselves. A magic performance consists of a collection of tiny lies and secret actions that are deviously arranged to create a miracle. The audience appreciates being deceived but is also questioning, examining, and resisting all the while. The magician needs to anticipate their thoughts and stay two steps ahead. In order to fool someone, you need to see things through another person's point of view and their way of thinking. Magic requires you to be empathetic. This should be true of all art, but it is definitely true of magic.

One of the things that make magic so appealing is that it is essentially an intellectual art form. There is an irony and a wonderful dichotomy that has to happen for a magic show to exist. The audience has to know something's impossible—that it cannot happen—while their senses are telling them it is happening. Even the simplest tricks involve intellectual engagement by the audience, which is why Penn & Teller prefer the word "trick" to the word "illusion." Illusion is a term that refers to visual deceptions. They can be very interesting and deceptive, but they have no intellectual content.

The fact that magic is about things that seem to be one way, but are another way, is very interesting. Magic does not require a willing suspension of disbelief. That's another distinction between magic and a play. Watching a play, the audience willingly suspends its disbelief. If someone picks up a stick and says, "This is a sword," the audience thinks, "I'll believe it." In a magic act, if a magician walks out, picks up a stick, and says, "This is a sword," the audience does not believe it. He must pick up something that looks like a sword, acts like a sword, and yet seems to do impossible things.

Magic has a strong epistemological element to it. It playfully asks the question: How do we know what is true? A magic trick takes one of the heaviest philosophical concepts and deals with it in the silliest way. The most important question you can ask yourself is: What's real and what is not? If you answer this question wrong, you can get hit by a bus or hire the wrong surgeon. But in the context of a magic show, you can answer that question wrong at every turn and there will be no harm done.

"Magic" is a word that has always had supernatural overtones. The touring magicians of a century ago often featured devils, demons, and imps in their presentations, and those creatures figured prominently in many of their advertising posters. But many magicians in the 21st century, including Penn & Teller, ignore those overtones or work to counter them. But it is still not unheard of for magicians to surround themselves with superstitious window dressing like astrological charts and tarot cards. Penn & Teller have certainly never done that, but you must decide what approach you want to embrace. Magic, like all art forms, is a form of self-expression, and you should try to express your worldview in your work. Penn & Teller's pro-science, libertarian, atheistic point of view can be seen in their work. They have tricks in their act that include references to physics, political theory, and epistemology. What kind of experience do you want to create for your audiences? What worldview do you want to convey in your performances? When people see a show, they want to learn something about the performer, and it's important that you put yourself into the work.

Penn & Teller try to adhere to what they call the Sawing a Person in Half Rule: They do not want anyone to leave the theatre after their show having acquired a belief that Penn & Teller do not believe is true. The name of the rule comes from the fact that when you saw a human being in half onstage, everybody knows that a person was not mutilated—they leave knowing that they've seen a trick. To be honest, they haven't achieved perfect adherence to this rule. There are two tricks they perform that can be perceived as memory stunts, but how memory is involved is ambiguous. Penn has said that that bothers him a little. Despite that, they probably adhere to this rule more than any other magicians, which is not saying

much, as they may be the only ones who are even trying. Penn & Teller also have performed tricks over the years that seem to have an element of danger, and they play up the danger for dramatic purposes. But they don't want people to believe what they are doing is actually dangerous because they think it's immoral that something life-threatening should be entertainment. They have said that it is because they have too much respect for life, and they believe that no one should ever get seriously hurt doing art.

Although you can spend a lot of time by yourself practicing magic, it is not solipsistic. Magic cannot exist in isolation. You can play music for yourself, you can write poetry for yourself, you can paint or sculpt for yourself. But you cannot do magic for yourself. You can't perform a trick and be deceived by it at the same time. If a magic trick is not performed in the presence of, or for, at least one other human being, it is not a magic trick. That's why one of the benefits of learning magic can help you connect with other people—including other magicians and magic enthusiasts around the world.

Learning magic, like learning any skill, is a wonderful experience, whether it becomes your profession or remains a hobby. It's fun, creative, and helps develop discipline and problem-solving. It gives you a lot of bang for your buck. Doing something wonderful and beautiful for other people is an end in itself. It is its own reward.

It shouldn't need to be said, but you must practice the tricks. If you can't do it right in private, you probably can't do it right in public. So it pays to get your tricks as right as possible before you get on stage—even if your "stage" is your living room or a booth in a diner. Don't be nervous! What's the worst that can happen if the trick goes wrong? Audiences—even if they're your friends and family—don't like to watch performers who seem nervous or uncomfortable. So, even if you are nervous, hide it. Fake confidence if you have to.

Talent and natural aptitude don't matter nearly as much as what Penn & Teller like to call flight time. Flight time is the amount of time that you're in front of an audience, and they say it's all that matters. Pilots don't keep track of difficult conditions they've encountered or tough landings. They only track how many hours they've been in the cockpit. It is understood that statistically, over time, pilots will encounter different conditions and situations and learn how to react. That's the way it is with magic. Performing as much as you can will help you get more comfortable in front of an audience. You don't know who you are onstage until you've been in front of a lot of audiences. When something goes wrong in a performance, it's not a disaster. It's a good thing—you actually learn something. You learn what can go wrong, and you will either figure out how to make sure it never happens again or what to do if it does. You don't really understand a trick until everything has gone wrong, so do everything you can to get yourself in front of an audience. And get as much time on stage as you possibly can.

Have fun while you're practicing. Performing tricks will be awkward and difficult at first; that's what practicing is for. Things get easier over time. And have fun while you're performing. It's a blast when you distort someone's reality and show them something impossible, especially the first time it happens. The high you get from that is something Penn & Teller have been chasing most of their lives.

There's a rather ancient piece of advice that is always good to follow: it's a good idea to learn to do one or two tricks really well. Because every piece of material that you develop that's really good, you'll be able to use again and again and again. Whereas if you do fifteen tricks in a half-assed way, none of them are really of any use to you. But, if you can put together a good, original 15-minute show, you can work as a performer. Magicians and variety artists can work easier than comics, writers, or actors. And if you can work silently, and are smart enough not to have a partner who doesn't, you can work anywhere in the world.

CHAPTER FIVE

MISDIRECTION

Almost everyone is familiar with the concept of "misdirection," and almost everyone's idea of it is wrong. The popular misunderstanding is that misdirection is a form of distraction. The magician waves his right hand and says, "Look over here," while he does something sneaky with his left hand over there.

But using distraction in this way does not work. If a magician succeeds in making you look away, you know you've been distracted. There is no magic trick; the distraction is the explanation. When misdirection is used poorly, the audience thinks, "You made me look away, and then you snuck the ball under the cup." Wouldn't you rather your audience thought, "How did that ball get under there? I was watching you the whole time!"

Audiences should feel that their attention during the entire show was exactly where they wanted it to be, and that they weren't manipulated. Certain subtle forms of "distraction" misdirection exist because audiences will miss the key things that are happening where they are not looking. But misdirection is a much more complicated subject.

Teller is fond of saying that the strongest lie is the lie that the audience tells itself. Misdirection is the story you get the audience to tell itself—as well as the ways in which you get the audience to tell itself that story. The audience is an active participant in their own deception, and there are many ways to nudge their thinking in the direction you'd like it to go.

The word misdirection implies that you are directing attention away from something. This is impossible. You can't direct attention away from something any more than you can tell someone not to think of a pink elephant. You can only direct attention *toward* something, and this is a tool you can definitely use. The audience will focus their attention wherever you are directing your attention. If you want the audience to look at an object, look at it yourself. If you want the audience to look at you, look at them.

There are many subtle ways to ensure audiences miss the secret steps that make the magic happen. Understanding when and where an audience's focus is, and when their focus loosens is crucial to understanding magic. For example, if you make an audience laugh, there is a moment of relaxation after the laugh, where their attention is lessened. If you are sneaky, during these moments, you can get away with anything. Some tricks, such as the Cups and Balls routine in Chapter 3, have more than one magical moment. There is a moment of surprise and relaxation after a magical moment when you can take advantage of the same way you take advantage of a laugh.

If you have a secret move you need to do, ask a spectator a question or give them a task, such as cutting the cards. This will split their focus and you can perform your secret move while they are thinking of an answer or completing the task.

Non-magicians tend to think that every trick has a secret, the one thing that explains what makes the trick work. This is inaccurate on several levels. The method to a trick is what makes the trick possible. But the method is not what makes the trick deceptive. What makes it deceptive is everything surrounding the method. Take the French drop, for example (see Chapter 2: Sleight of Hand). The secret is that you pretend to take the ball into your left hand, but secretly retain it in your right hand. In and of itself, that won't fool anyone. After you show the ball has "vanished," the thought process of the audience will be: "Where's the last place I saw the ball? In the other hand. I'll bet it's there." But the French drop can be very deceptive, if performed in context: if you have something to say, if you give the audience something to think about as you do it, if you justify the (false) transfer, if it is choreographed well, if you use the wand principle, etc. All of these elements are examples of misdirection. The secret is what makes it possible. It's everything else that makes it deceptive.

Convincers are an effective form of misdirection. Convincers are the things you do that make the audience cancel out possible methods. For example, in the classic levitation tricks, a hoop is often passed around a floating person or object to prove that there are no wires. Thus the audience rejects one possible solution. Other examples include: having the cards shuffled by a spectator, rolling up your sleeves, using borrowed objects, letting the audience examine the props, having a card signed, so that the audience knows it's the same card when it reappears, taking note of a borrowed dollar's serial number, etc.

In "The Disappearing Glass" in Chapter 6: Coin Magic, you will be introduced to a common form of misdirection, which is repeating a trick, but using a different method the second time around. The methods are combined in the audience's heads, and the weaknesses in each get canceled out. For example, imagine you have two methods for a Rising Card trick. With the first method the spectator can name which card rises, and with the second method, he can hold the deck while the card rises. If you perform these two different tricks as though you're repeating the same trick, most spectators will think you could have had a named card rise in the spectator's hands. And after a few days, they'll likely swear they saw you hand the spectator a pack of cards and any card named jumped right out.

There is also a powerful tool called "time misdirection" that can help prevent an audience from figuring out your methods. Time misdirection is when, after a not completely deceptive procedure, you let some time pass before you reveal the result of that procedure. You do this by either talking for a while or doing some other actions. This way, the audience won't really remember the details of the procedure when you make your final revelation.

Take a look at the card force used in "The Whispering Queen" (see Chapter 9: Card Tricks). If immediately after the spectator looked at the chosen card, you were to say, "You picked the Seven of Spades," it would not fool many people, because observant spectators could reconstruct the selection procedure and realize that the participant ended up with the original top card of the deck. That's why, after the card is chosen, you have the card returned, then the deck is reassembled and shuffled. Then you run the Queen through the deck and she whispers to you. All of this is part of the time misdirection. These actions dilute the memory of the selection procedure, and the audience only remembers that a card was picked. The revelation is much more likely to come as a surprise, and the audience will have trouble backtracking to reconstruct the selection procedure.

"MISDIRECTION"

Penn & Teller do a trick called "Misdirection" (you can see a performance of it in this Chapter) which capitalizes on the popular misconception of misdirection. What Penn & Teller are doing in this trick is using the idea of misdirection as the magic wand to make another trick happen. It is an idea that they love and have experimented with many times.

A little learning is a dangerous thing. Everybody thinks they understand misdirection, but they really don't. So, Penn & Teller use that misguided idea to suggest they

are doing one trick, when in fact they are doing another. The trick they are actually doing is an old classic called "The Lion's Bride," in which a person (in their case a gorilla) appears inside an empty cage. The actual misdirection is *learning the concept of misdirection*. They imply the trick they are doing is making a chicken vanish, and then they teach the audience a crude example of misdirection—a person in a gorilla suit jumping onstage and banging cymbals—and that keeps the audience from anticipating the *true* plot of the trick.

Using a standard magic trick and pretending to give away a magical concept that has nothing to do with the trick is something magicians have been doing for a long time. There is a whole genre that does this called sucker tricks, but this is a name—and a concept—Penn & Teller hate. What is to be gained by thinking of your audience as suckers?

Penn & Teller have had several versions of "Misdirection" over the last 30 years, and Penn says, "It has taken us several tries to get it right." They originally introduced the misdirection jokes and references after the alleged "misdirection," rather than before. It was like doing the punch line before the set-up. They learned they had to introduce the idea of misdirection before the actual misdirection—the cymbal-banging gorilla—appears. The staging of the misdirection has changed, as well. In the first version, the gorilla was at the back of the theatre and they tried to get the audience to turn completely away from the stage. In another version, they had a gorilla chase a half-naked showgirl across the stage. They also had a very different version called "By Buddha, This Duck Is Immortal!" where they apparently dropped an anvil on a duck. The misdirection was when a part of the set—a giant lighting tree—crashed onto the stage.

Getting it right was complicated, because they needed to make the audience look at the misdirection and the audience had to know that they were looking. The timing was difficult because it was a case of "we know that you know that we know that you know." But it had to exist on that level theatrically before they could do what was really a fairly dumb, straightforward trick. The *real* misdirection in this trick is that Penn & Teller are doing something intellectually complex for something that isn't even slightly intellectually complex. It's a cruise-ship-magician trick that is wrapped in a concept (misdirection) that is true, but not for the trick they are doing.

CHAPTER SIX

COIN MAGIC

There are magicians who do nothing but coin magic for their entire careers. Solid, shiny objects that make sound—it's as if coins were invented for magic. Using coins as props offers many advantages. Coins are everyday objects that people know and understand. They are made of metal; they have weight and inherent value. People take for granted that metal is solid and substantial—making a metal object appear, disappear, or penetrate other objects—is viscerally impressive. And where most magic only fools the eyes, coin magic often incorporates sound, engaging another sense. Experienced magicians know that shiny objects really do draw people's attention, and controlling people's attention is essential to good magic. If that doesn't convince you that coin tricks can engage an audience, remember: not everyone loves magic, but everyone loves money.

Because of their ubiquity, you will likely use quarters for the following moves and tricks, but half dollars are excellent for magic. Their larger size makes them ideal for sleight of hand; they are easier to secretly palm, and they are more visible to the audience. The heightened reactions your tricks will get is going to make the trip to the bank worth it.

Remember the French drop that was taught in Chapter 2? Well, that venerable sleight can be used with coins as well. You just need to make a couple small adjustments. You begin by holding the coin by the edges between the right index finger and thumb (figure 1). This looks like an unnatural way to hold a coin, so you'll need to justify it. Perhaps you are holding it this way because there is something you want the audience to notice about the presidential profile, or you want them to take note of the date of the coin, or the eagle on the back, whose wings enable the coin to magically fly.

Figure 1

The French drop is executed just the way it is described in Chapter 2, however, when you pretend to take the coin into the left hand, the coin doesn't roll down into your right fingers, it just drops down into your fingers, where they will slightly curl around the coin, holding it in finger-palm position (figure 2). The rest of the sleight is the same.

Figure 2

One of the fundamental guidelines in magic is: never repeat a trick. In the first two phases of the following trick you are going to do the same trick twice, however you are going to use a different method each time. If the audience has a suspicion regarding how you do the trick during the first phase, that suspicion will be cancelled during the second phase, because of the change in method.

The following trick uses a technique called "lapping." Lapping is where you secretly drop items into your lap—usually as a way to make them vanish.

In order to lap items, you should be seated comfortably with your body less than a foot away from the edge of a table, with nobody seated directly next to you where they can see into your lap. You need to make sure that when you drop something into your lap, you will be able to catch it. How to best ensure this will vary depending on your body type and your clothing. It may be sufficient to just press you thighs tightly together. You might find it useful to cross your legs at the ankles in order to help hold your knees together. Placing a napkin across your lap can help. (Of course, if you're wearing a skirt, a napkin is unnecessary.) If there is a tablecloth that hangs down long enough, you might be able to spread that across your lap. Do some experimentation to find out what works best for you.

THE DISAPPEARING GLASS

This is a classic of magic and a great trick to do at a dinner table or in a cafeteria or diner. It is strong enough to be done in a formal show, but works just as well when performed casually for friends or family.

EFFECT: *You show two coins and take one into each hand. Your right hand goes beneath the table, and the left hand stays above the table. You slap your left hand onto the table, and the coin penetrates the table and falls into your right hand, where it lands with a clink against the other coin. You repeat this. You now propose to make both coins penetrate the tabletop simultaneously. To make this feat even more impressive, you will do it without touching the coins. They are isolated underneath an inverted drinking glass, which you cover with a piece of newspaper. You bang your hand against the top of the glass, and the glass somehow goes through the table, instead of the coins. An unexpected, but more impressive, stunt.*

NEEDED: ***Two coins of the same denomination*** *(quarters will work, but half dollars are recommended),* ***a drinking glass****, and one of the following:* ***a sheet of notebook paper, a newspaper page, a napkin, or a paper placemat****. A cloth napkin can sometimes work, if it is stiff enough. Also, you need to be seated at a table.*

PREPARATION AND SETUP: *You need to be seated at a table, and need to have the coins, glass, and paper somewhere convenient.*

THE TRICK / STEP BY STEP: Bring out the two coins and set them onto the table, side by side, off to your right a little bit—this will help you justify the false transfer that is coming up. Leave the glass and the newspaper aside for now.

With your right hand, pick up the leftmost coin and display it in French-drop position (figure 1 again).

Your thought process here (what actors would call your internal monologue) will help justify doing a French drop. You want one coin in each hand; your right hand has a coin, but the second coin is off to your right side, and it would be unnatural to reach across your body with your left hand. So you apparently take the first coin into the left hand (but actually do the French drop). Your closed left hand turns palm up and moves slightly to the left, apparently holding the first coin.

Figure 3

Your right hand is now free to pick up the second coin, which is right next to it, and display it at the fingertips (figure 3).

Since your right hand is secretly palming the first coin, when you display the second coin, you are using the wand principle (see Chapter 3: Sleight of Hand). The "wand" in this case is the second coin. The audience sees you are holding/displaying a coin in the right hand, and that conceals/explains the real reason why your fingers are curled the way they are (because you are secretly palming a coin).

Take your right hand, with its coin(s) beneath the table. Raise your palm-down left fist about nine inches above the table. Quickly slam your left hand down onto the table, the hand opening as it descends. (Teller did not do the following in the video, but here is a nice convincer you can add.) At the exact second the hand slaps against the table, your right hand bangs the coin in its fingertips against the underside of the table. The sound of the coin against the table sounds to the audience like the sound of a coin in the left hand against the top of the table. Immediately, your right hand drops that coin into the hand, where it falls against the other coin and makes a clink. If the two coins don't initially make a sound, shake your hand to jingle them together.

Raise your left hand to show there is no coin under it, then bring your open right hand up from below the table to show it has both coins. Drop them onto the table. You're now going to make the second coin penetrate the tabletop. Place your open left hand, palm up, at the edge of the table, with your knuckles along the table edge. With your right hand take one of the coins and place it right into the center of your left palm (figure 4). You will now rotate your left hand palm down and simultaneously close your fingers into a fist. Before your fingers close around the coin, however, it falls directly into your lap. (This is called a revolve vanish.) Without pausing, raise your left hand and move it forward, several inches above the table, and away from the table edge.

With your right hand, pick up the second coin and display it on your open palm, so that it is clear that you only have one coin in your hand. Take that coin down beneath the tabletop, and secretly pick up the other coin that is in your lap.

You will now apparently make a second coin penetrate the table. Raise your palm-down left fist, then slam it onto the table, simultaneously using your right hand to bang a coin against the underside of the table. Immediately, your right hand should drop its coin into the hand, where it falls against the other coin and makes a clink.

Raise your left hand to show there is no coin under it, then bring your open right hand up from beneath the table to show it has both coins. Drop them onto the table.

You will change things up considerably for the third phase. Place one coin directly in front of you about nine inches away the edge of the table, and stack the other coin on top of it. Grab the glass and invert it over the coins. *"I'll make both coins go through the table, you'll hear them hit the floor. But to prevent me from doing any sleight of hand, I will cover them with this glass, so I can't touch them."* Now take the paper, place it over the glass, and with both hands shape it around the glass, so that it forms a kind of shell (figure 5). Say, *"But I don't want you to see*

Figure 4

Figure 5

how I do it, so I'm going to cover the glass with this paper." If you were to lift the paper from the glass, it would retain the shape of the glass.

With your right hand, hold onto the paper-wrapped glass and slap the top of the glass with the palm of your left hand, then set your left hand down right at the edge of the table. With your right hand, lift the glass to see if the coins have gone through. With your eyes, focus all your attention on the coins. Lean your whole body backward; your left hand, which was right at the edge of the table, will fall into your lap, where it turns palm up, ready to catch the glass. Rest your right hand, with the glass, just off the edge of the table, with the bottom of the glass even with the tabletop (figure 6). Let go of the glass, and let it fall into your left hand. Set the glass into your lap or between your thighs.

Act disappointed that the coins didn't go through the table. Replace the "glass" (which is just the paper shell) over the coins and hold it there with your right hand, so that the shell retains its shape. Say, *"I'll try again."* Smash your left palm down onto the paper, completely flattening it. The fact that the glass has apparently vanished will be very shocking.

Figure 6

Lift up the paper. Show that the coins are still under it. Say, *"I didn't make the coins go through the table. I guess I can't do this trick."* Ignore the fact that the glass vanished, and crumple up the paper and toss it aside.

PRACTICE DRILLS: Practice finger-palming a coin while picking up a second coin. Your fingers can't look cramped or unnatural when picking up the other coin. Be careful of windows. Don't let the finger-palmed coin be seen between your fingers.

Practice banging the one coin against the bottom of the table and then dropping it into your hand to get a nice "clink." Practice and adjust your grip so you can get the clink every time.

Do the revolve vanish over and over, so you can catch the coin in your lap every time. You don't want it falling to the floor. This is a move you will instinctually do too fast, because the move is a little scary. Don't rush it. Relax and turn your hand palm down at a natural pace, then move your hand up and away from the table edge. Practice dropping the glass from the paper shell into your left hand, so that nothing suspicious is seen—no finger movement and no rippling of the paper. And your left hand and arm can't move when they catch the glass.

THE MISER'S DREAM

The appeal of coin magic can readily be seen when watching a performance of "The Miser's Dream." In this classic routine, often performed by stage magicians and street magicians, multiple coins are seemingly plucked from thin air and dropped into a bucket. Over the years, it's been known by many names, such as "Aerial Treasury" and "Shower of Money." These days, it is almost universally known as "The Miser's Dream." Teller has performed his own versions of the trick for over 40 years, and though it involves advanced sleight of hand that is beyond the scope of this MasterClass, you may enjoy researching some of the great performers who have featured this trick:

ROBERT-HOUDIN: He was a nineteenth century French magician, referred to as "the father of modern magic". His version of "The Miser's Dream" involved a "crystal casket" to hold the coins.

T. NELSON DOWNS ("THE KING OF KOINS"): Downs was a vaudeville star and one of the all-time great manipulative magicians. He made his career exclusively with coin magic, and he popularized the name "The Miser's Dream".

TALMA (STAGE NAME OF MARY ANN FORD): Talma, who was active around the turn of the last century, was perhaps the first great female sleight-of-hand artist. She specialized in coin manipulation, including "The Miser's Dream".

AL FLOSSO ("THE CONEY ISLAND FAKIR"): Flosso was a much-beloved, all-around magician. He was active up until the 1970s, and his interactions with spectators while doing "The Miser's Dream" were unforgettable.

JEFF SHERIDAN: In the 1960s and 1970s, Sheridan's outdoor performances around Manhattan, which featured "The Miser's Dream" helped launch the modern era of street magic.

If you'd like to learn more about "The Miser's Dream" or coin magic in general, then you will want to read the bible of this genre: *The New Modern Coin Magic* (1966) by J.B. Bobo. There are enough coin tricks in there to last you the rest of your life, but if coins really excite you, then *David Roth's Expert Coin Magic* (1985) by Richard Kaufman is also recommend.

CHAPTER SEVEN

MAGIC VS. LYING

You have to accept the fact that in magic, you're going to lie. And you have to accept the fact that, if you have a moral compass, you don't want to. Because looking another person in the eye and lying to them is one of the major transgressions of the social contract. But lying is the one "sin" that becomes okay if you put a proscenium around it. All art is a form of lying, and magic is a special form of lying. As the twentieth-century magician, Karl Germain, said, "Magic is the only honest profession. A magician promises to deceive you and he does."

One of the best ways to make something convincing to an audience is to allow them to come to certain conclusions themselves. For example, if you were to casually hand a spectator a deck of cards and say, "Would you please shuffle these?" your attitude and lack of concern will convince the audience that the pack is ordinary (even though it may not be). If you were to say, "Here is an ordinary deck of cards," this does nothing but raise suspicions and doubt. A skilled magician can persuade the audience to tell itself the story that the magician wants to tell. It's very difficult for the audience to contradict the ideas that they themselves have constructed. That's why you have to be extra careful about what you imply during your performances. You have to carefully consider what conclusions audiences are going to make based upon your actions.

CHAPTER EIGHT

MENTALIST OR CROOK?

Mentalism is a genre of magic that deals primarily with people's thoughts. Mentalism effects include mind reading, thought projection, suggestion, divination, predicting the future, mind control and other "psychic" phenomena, such as using your mind to bend metal and move objects.

Mentalism is nothing more than a genre of magic, but people are more inclined to believe that mentalism tricks are "real" than other types of magic. Some mentalists try to take advantage of that; they encourage the audience to believe their tricks are done by genuine (?) psychic power. To avoid being branded a fraud, a crooked mentalist may resort to verbal chicanery and say things such as, "You all have the same mental powers as I do; I've just spent more time developing them." To people who know magic, this means, "You could fake this, too, if you practiced." But to people inclined to believe in psychic communication, this says, "We're all psychic; I've just developed my psychic abilities more than you have."

Those weasel-like double-meaning words mislead trusting people. That's not what entertainment should do. Penn & Teller believe it's immoral to lie about the way the world works. Even mentalists who don't claim to read minds, but pretend to read body language or influence people with priming or neurolinguistic programming, give Penn & Teller the creeps.

While most mentalists are honest entertainers, some shamelessly use the techniques of mentalism to scam people out of money by exploiting their grief at the death of a loved one. This is something you can't do. Grieving people are at their most vulnerable. Delivering messages from loved ones beyond the grave is emotionally abusive, and pollutes a person's memories of their loved ones with lies. "Psychics" often claim they are comforting people who come to this, making them feel better. This is not a justification. It's a flimsy excuse and a lie. Abandoning your empathy and compassion this way is deeply immoral.

Mentalists have certain ethical and philosophical considerations that most magicians don't. One of the most important things you have in your life is your reputation. And as a magician, you can have a reputation as someone who is profoundly concerned with truth and honesty. This can be true of mentalists, as well. Here's one of the most practical and amazing pieces of mentalism you can learn. It's adapted from a great book called *Thirteen Steps to Mentalism* by Tony Corinda. You may find that the hardest part of it is to convince the spectator that it's just a trick.

THE CENTER TEAR

EFFECT: *A spectator writes a secret word on a slip of paper and folds it in quarters. You tear this slip of paper into tiny pieces and burn (or throw away) the pieces. Yet somehow you mysteriously know what the secret word was.*

NEEDED:

- ***A few slips of paper****. Small notepads work well, or you can use printer paper. Ideally, the paper should not be too thin, so that the writing doesn't bleed through.*
- ***Scissors.***
- ***A pencil or pen.***
- ***A cigarette lighter or matches (optional).***
- ***An ashtray or a small dish or saucer (optional).***

PREPARATION AND SETUP: *Cut a slip of paper between two to three inches square (the exact size is not critical). Draw a circle in the center of these slips of paper just over an inch in diameter. If you want to get fancy, you can draw the circle as a crystal ball* (figure 1).

Fold the paper in quarters (figure 2). *If you look at the paper, you can easily identify which corner is the center of the paper (which is where the circle is). It's the corner where all the edges are folds, not single layers of paper. In performance, you'll need to quickly identify this corner. Fortunately, it is very easy to do. Unfold the paper.*

Put the lighter in your right pocket. Have the paper, pen, and ashtray wherever is convenient.

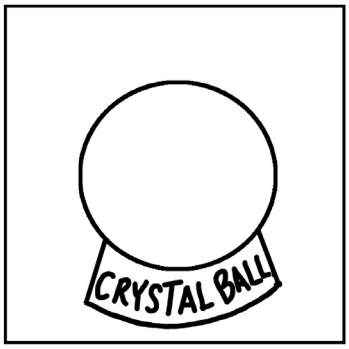

Figure 1

Figure 2

THE TRICK / STEP BY STEP: Give your spectator the slip of prepared paper. Tell her to concentrate on an important word, but to keep the word secret from you. Instruct her to write this secret word, in block letters, on the slip of paper, inside the "circle of mystery" (or crystal ball). Look away while she does this. Have her fold the paper in half, and then in quarters, along the creases, so the writing is on the inside.

Take the paper from the spectator and say something like, *"Writing the word down helps you concentrate on it, but I don't want anyone to see what you wrote."* From here on, refer to what the spectator is "thinking about" *not* "what the spectator has written." You're supposed to be demonstrating *mind* reading, not *torn-paper* reading. Hold the paper so that the center corner is at the upper right (figure 3). Tear the paper in half vertically (figure 4). Put the left-hand pieces behind (on the audience side of) the right-hand piece, and rotate the pieces 90 degrees clockwise. Tear them all in half again (figure 5). Put the left-hand pieces behind the right-hand pieces.

Figure 3

Figure 4

Figure 5

The piece against your right thumb is the center piece (with the writing on it).

Here comes the only "move" in the entire routine, and you will cover it with the following question. Say, *"Do you have a lighter?"* The spectator will be distracted by the question and you immediately continue, *"Never mind, I think I have one."* As you take all the pieces into your left hand, pull the center piece back with your right thumb to secretly retain it behind your right fingers (figure 6). Your left hand deposits the pieces in the ashtray as your right hand reaches into your pocket to get the lighter. The hand dumps the piece of paper into your pocket,

Figure 6

then removes the lighter. Say, *"I'd like you to burn this. But I don't want to see what you've written, and sometimes the pieces open out as they burn. So I'll go over there and turn my back."* Now, while the spectator is focused on burning the pieces, you have plenty of time to read the information on the stolen center piece and stash it back in your pocket.

Now you return to the spectator and rub a little ash from the burnt paper on the their palm. Press your own fingers against the ash on their hand, as if it's linking your mind to the spectator's. Then mysteriously reveal the word. It is more effective to reveal the word a little bit at a time, or get a general sense of the word, and get more and more specific. For example, *"I'm getting the impression of an animal. But not a pet. A wild animal? And it's large. But it's not a real animal, is it? Are you thinking of a unicorn? I thought so!"*

VARIATIONS: If you don't want to use fire, you can dump the the torn pieces (minus the center) into a shredder or garbage can or flush them down a toilet. The important thing is to prevent the spectators from picking up the remaining pieces and discovering which one is missing.

Then draw a big circle in the air. Say, *"I'm going to turn my back. While I do that, I want you to write the word in the air, in that circle, just as you wrote it in the crystal ball."* Turn your back as though you are giving the spectator some privacy. While she is following your directions, open the paper and peek the word, then slip the paper into your pocket. Turn around and stare into the air where you drew the circle and pretend to see the word and read it aloud.

PRACTICE DRILLS: Fold up several slips of paper. Practice picking them up, quickly identifying the center corner, and taking it into your hands with that corner at the upper right. Practice tearing the paper twice and dropping the pieces into your left hand, while retaining the corner piece in your right hand. Practice slowly and quietly unfolding the stolen piece. Practice looking down to read the writing without looking suspicious or like you're trying to read something hidden in your hands. Practice doing all this slowly and naturally.

FINAL NOTES: Penn & Teller have always maintained a critical attitude about paranormal claims. They are not alone in that. Magic and skepticism have long, overlapping histories. Magicians know how to lie and are perfectly positioned to tell you how other people are lying. Over the centuries, many magicians have been interested in science and rationality and have felt a need to crusade for the truth. Houdini, one of Penn & Teller's heroes, popularized the concept of "magician as spokesman for skepticism" and spent the latter part of his career debunking mediums and psychics. In the modern era, the magician who has been the most associated with this type of crusade is another hero of Penn & Teller's, James "the Amazing" Randi.

Penn has been quoted as saying, "Outside of my family...no one is more important in my life. Randi is everything to me." Many times he has also said, "Randi created Penn & Teller. Without the Amazing Randi there would be no Penn & Teller." In the 1970s, before they were a duo (although they'd performed together) Penn & Teller saw Randi give a public speech. They both stayed after to talk to him, and Randi suggested they'd make a great team. More significantly than that suggestion, Penn & Teller credit Randi with teaching them that you can use magic and deception to tell the truth. This was an extraordinary revelation to them. Much of their work since has been an exploration of the eternal questions: What is true? How can you tell what is real and what is not?

CHAPTER NINE

CARD MAGIC

Card magic is by far the most popular genre in magic. The number of tricks involving cards far exceeds all other tricks combined. Cards are inexpensive and familiar. With an interest in magic and just a few dollars in your pocket, you can make card magic a hobby (or career) that will last you a lifetime. Card tricks are versatile; they range in difficulty from self-working to knuckle-busting, and effects can vary from mathematical puzzles to highly visual eye candy to intellectually subtle mysteries. There is a vast array of plots possible with cards that could not be done with, say, coins or billiard balls. There are dozens of compelling associations people make with playing cards. Cards bring to mind games, fortune telling, gambling, cheating, order, chaos, and sleight of hand. Johann Hofzinser, the great nineteenth-century Austrian magician, referred to cards tricks as the poetry of magic.

Learning magic is often compared to learning to play an instrument. They take similar amounts of time, discipline, focus, and practice. Card tricks have an even more specific parallel to music. Learning a few simple principles with card magic is like learning the basic chords on a guitar. Once you understand these core principles you can build an unlimited number of routines. Once you can "force a card," there are hundreds of way you can execute your trick. The only limitation is your imagination.

TERMINOLOGY: Here is some information about playing cards along with some terms and that you should be familiar with as you start to learn card magic.

A deck (also called a pack) consists of fifty-two cards, not counting the two Jokers that are often included. There are four suits of thirteen cards each. The suits are Clubs, Hearts, Spades, and Diamonds. Each suit has ten number cards (from Ace through Ten) and three court cards (Jack, Queen, and King). The court cards are also called face cards or picture cards. Every card has a face and a back—the part that shows the suit, value, and pips, etc. is the face, and the part that has the uniform design is the back. The faces of all the cards are different, but the backs are all the same (just like people!).

Here are the terms you should know. The top of the deck and the bottom of the deck are self-explanatory, but the top of the deck can be the face or the back, depending on if the deck is face up or face down.

Sides: These are the long edges of the deck.

Ends: These are the short edges of the deck.

Inner End: This is the end of the deck that is closest to you.

Outer End: This is the end of the deck that is away from you.

JOHNNY THOMPSON

In this Chapter, to help them teach card magic, Penn & Teller brought in their mentor, Johnny Thompson, recognized as one of the greatest magicians of the past century. Johnny was one of the last old-school show business performers. You name it, he did it: circuses, casinos, nightclubs, cruise ships, and a lot of television. Beyond magic, he was also a jazz musician, actor, inventor, and consultant. He could basically do anything.

He will be most remembered for the decades he spent performing as The Great Tomsoni & Co. (his wife Pamela Hayes was "& Co."). Tomsoni was a dapper, but buffoonish, stage magician who, despite his comedic persona, did the most beautiful magic you could imagine, producing doves with a masterful, casual precision.

Johnny worked with Penn & Teller for about 20 years, and advised them on virtually every magic routine they created or performed in that time period. Johnny's fingerprints are all over their show, and his influence will linger for years to come. Johnny's work was so beloved by Penn & Teller that their show even featured a tribute to the Great Tomsoni—think of it as a cover version of the act. Teller played the role of Tomsoni, Georgie Bernasek, who has been in Penn & Teller's show for years, played Pam's role (& Co.), and Penn played the drums.

Sadly, Johnny died in Las Vegas, shortly before the release of this MasterClass. He was working as a consultant on season six of *Penn & Teller: Fool Us* when he collapsed in the Penn & Teller theatre at the Rio All-Suite Hotel and Casino. He was working on magic till the very end, an unsurprising end for a showbiz veteran like Johnny. The footage in this series is some of the last that he ever recorded, and is a wonderful last glimpse at a true legend at work.

THE WHISPERING QUEEN

Here's a trick where you will learn to force a card. Forcing a card means making a person select the card you want them to select, while making them think they had a free choice. You will also learn the Magician's Choice, which is used frequently in magic.

EFFECT: *You have the spectator select a Queen; this card is removed from the deck and set aside. The spectator cuts the deck of cards into three packets, and memorizes the top card of one packet. The deck is then reassembled and shuffled. You take the isolated Queen and run the card through the deck. The Queen "whispers" the chosen card's identity to you. She is never wrong.*

NEEDED: ***A deck of cards.***

PREPARATION AND SETUP: *None.*

THE TRICK / STEP BY STEP: Have a spectator shuffle the deck. When he or she is finished, take the deck back and say, *"This trick is called 'The Whispering Queen.' Which of the four Queens should we use to be the Whispering Queen?"* Let's assume the spectator says the Queen of Hearts.

Pick up the deck with the faces toward you, and run through the cards, looking for the named Queen (Hearts, in our example). While you are looking through the cards, take the opportunity to look at the top card of the deck, the rearmost card at the back of the face-up pack. (Secretly looking at and noticing a card like this is called a peek). Let's say you spot the Four of Diamonds at the back of the deck. Remember this card.

Find and remove the Queen of Hearts. Say, *"We don't want her to see what we are doing, so I will put her face down and cover her."* Place the Queen face down onto the table and put the card box on top of her.

Set the deck face down onto the table a little bit to your left. Ask the spectator to cut off about one-third of the deck and place the cut-off packet to the right of the deck. Ask her to cut off another third, and to place it to the right of the first two packets (figure 1).

Figure 1

You are going to use what is called Magician's Choice to force the middle packet, which has the card you peeked on top (Four of Diamonds, in our example). Magician's Choice is a verbal technique where you offer the illusion of a free choice, but in reality, all the procedures are structured in a way that the spectator's choices will alwyas end up with the same result. It's a very powerful technique, and it is used a lot in magic.

Say, *"Point to one of the packets."* For the Magician's Choice to work, do not say, "pick" or choose" a packet. Say, "touch" or "point to" a packet.

If the spectator points to the middle packet, which happens most of the time, say, *"I'm going to turn around. Take a look at the top card of that packet, and show it to everyone."*

If the spectator points to either of the side packets, say, *"We'll eliminate that packet."* Set it aside. Ask the spectator to place an index finger on each of the remaining packets. Say, *"Lift up one of your fingers."* If he or she lifts the finger from the non-force packet, set it aside with the first packet. Ask him or her to look at the top card of the remaining packet, which he or she has their finger on. If he or she lifts their hand from the force packet say, *"Okay, I'll turn around. Look at the top card of that packet."* Take the other packet and put it with the first discarded packet. So, no matter what choices the spectator makes, he or she will end up remembering the force card.

Ask the spectator to return the card to its packet, have him or her reassemble the entire deck, and ask he or she to shuffle the cards. When he or she is done, set the deck onto the table. Pick up the Queen of Hearts and hold it face up in your right hand. With your left hand, lift up about half the deck and pass the Queen between the halves (figure 2).

Figure 2

Hold the Queen up to your ear, and pretend to listen to her whispering to you.

Reveal the identity of the selected card a little bit at a time. *"She says you picked a red card. It's a Diamond. Is that correct? It's the Four of Diamonds! Is she right? She never misses."*

PRACTICE DRILL: Go over in your head the three different scenarios that happen during the Magician's Choice with the three packets. When the spectator points to a packet, you need to be able to respond with the next instruction instantly, without thinking. No matter how you arrive at the force card, it needs to seem like that is the way the procedure is every time; so it cannot seem like you are making adjustments depending on the spectator's choices. So, imagine over and over in your head, each of the choices the spectator can make and what your next instruction is, so that you don't have to think about in performance.

FINAL NOTE: When you are first looking for the named Queen, if it happens to be close to the face of the deck, say, *"Oh, here she is. That's easy. I don't even have to spread through the deck."* Quickly spread through the cards, in a gesture that ironically demonstrates that you *don't have to spread through the cards*, and peek the top card of the deck. Remember it and continue as above.

CARD TO IMPOSSIBLE LOCATION

In the previous trick, "The Whispering Queen," you learned one method to force a card. Here you will learn another. If you know a good card force and have a duplicate of the force card, you can engineer any number of miracles.

EFFECT: *A spectator cuts to a random card in the deck and remembers the card he or she cut to. The deck is shuffled. You make the selected card appear in an "impossible" location, such as in your pocket, between the pages of a book, or underneath the tablecloth.*

NEEDED: ***Two identical decks of cards.***

PREPARATION AND SETUP: *Secretly put the duplicate card wherever you would like it to appear: underneath your laptop, inside your hat, in your spectator's purse, etc. Place the card that matches the duplicate card onto the bottom of the deck (this is the card you are going to force).*

THE TRICK / STEP BY STEP: You are going to force the bottom card of the deck, using a move called "the glide," but first you need to get into position. Hold the deck from above in your right hand, with your thumb on one side of the deck and your fingers wrapped around the other side (figure 3). Press your ring finger against the bottom card of the deck and secretly slide it backward an inch or so (figure 4, view from below). As you are doing this, with your left hand, bevel the outer end of the deck by adjusting the cards so they are angled backward from the bottom card, which sticks out farthest, to the top of the deck (figure 5). Make sure that you hold your hands and the cards so that nearby spectators can't see the card projecting from the back of the deck.

Figure 3

Figure 4

Figure 5

Point the outer end of the deck toward a spectator, and ask him or her to remove a packet, of as many cards as he or she wants, from the bottom of the deck (figure 6). Because of way the deck is beveled, when he or she removes a packet from the bottom, the actual bottom card (your force card) remains where it is—that's why is was slid backward earlier. When he or she has removed a packet, square up the remainder of the deck in your hands, and say, *"You could have removed any number of cards. And you cut to this card."* Show him or her the card at the bottom of the deck (the force card). Reassemble the deck and ask a spectator to shuffle the cards.

Figure 6

Now, do whatever you need to do to "make the magic happen." Slap the deck or riffle the edges, or wave your magic wand. Then reveal the duplicate in the "impossible" location.

VARIATIONS: Here is another way to use the glide to force a card. The force card starts on the bottom of the deck. Use your right ring finger to slide the force card backward as described above. Now say, *"I am going to deal cards from the bottom of the deck onto the table. Say stop whenever you want."*

With your left fingers at the outer end of the deck, contact the face of the bottom card of the deck; this will actually be the card second from the bottom, because the bottom card (the force card) has been slid back. Slide out the card you are touching and deal it face down onto the table. Repeat this continuously, dealing the card above the bottom card face down onto the table. When the spectator says, "Stop," square up the deck and show him or her the bottom card, saying, *"Remember this card."*

Alternatively, you can deal the cards face up onto the table. When he or she says, "Stop," take the actual bottom card of the deck (the force card) and hand it face down to the spectator, saying, *"Take a look at this card."* Either way, the card he or she apparently stops you on is the force card. Reassemble the deck, have the cards shuffled, and make the selected card appear wherever you have stashed the duplicate.

PRACTICE DRILLS: Practice the glide. Get used to holding the deck from above in your right hand. Practice sliding the bottom card back without your hand looking cramped, and with as little finger movement as possible. And practice giving the deck a nice, smooth bevel with your left hand.

FINAL NOTES: If you have the opportunity, as the duplicate card is being retrieved from the "impossible location" or while the audience is reacting to the trick, casually look through the deck, find the force card and sneak it out of the deck. Drop it into your lap or put it into your pocket. Then, if anyone wants to look through the deck, they will see that the selected card is not there, therefore the card found in the "impossible location" *must* be the same card.

Opportunities for this trick can present themselves at any time. You could find it in your own pocket or wallet, but if you have the chance, it's more fun to stash it in some more shocking location. If you have a chance to pre-set it face up under a white tablecloth, when the moment comes to produce the card, you can pour a little water on the cloth and the cloth will become transparent enough to reveal the card waiting underneath. If you get to a restaurant table first, you can hide it under a bread basket. Take advantage of circumstances to use that moment to plant your surprise where it will be the most startling, maybe even into a friend's jacket pocket or purse.

THE CIRCUS CARD TRICK

This classic trick has had been used by magicians for decades to scam money from their friends and loved ones. Here, you will learn about the key card principle, which is an important idea in card magic.

As you read this trick, study the script, and take note of the suggested lines to deliver when performing this (some of these lines are not in the video of Penn's performance). The suggested wordings are carefully chosen to maximize the effectiveness of the swindle.

EFFECT: *A spectator selects a card and returns it to the deck. You deal through the deck in an attempt to find the selected card. The spectator notices that you have dealt past the selected card, and he or she is convinced you have blown the trick. You entice the spectator into a bet: you'll pay him or her a dollar if you don't find the card; if you do, he or she owes you a dollar. The spectator, sure he or she has the upper hand, takes the bet. You win the bet when you find the card in a fun and unexpected manner.*

NEEDED: ***A deck of cards.***

PREPARATION AND SETUP: *You'll need to be at a table, but otherwise, none. Yeah, none. It's a good one.*

THE TRICK / STEP BY STEP: This trick will only be effective for people who can clearly see the tabletop and will therefore notice the selected card when you deal it face up. If spectators cannot see the dealt cards, the ending will have no impact.

Ask a spectator to shuffle the cards, and to place them onto the table when they're finished. Ask him or her to cut off a packet of cards and set them onto the table next to the bottom half. With your right hand from above, thumb on the inner end, fingers on the outer end, pick up the top packet. Ask the spectator to look at the card he or she cut to—the top card of the bottom packet—and to show it around.

Tell him or her to return the card; as you do so, use your right index finger to point to the tabled packet. Pointing down at the packet will tilt the packet in your hand just enough that you can see the bottom card (figure 7). We will assume that the card you see is the Seven of Spades. That is now your key card. When he or she returns the card to the top of the tabled packet, place your packet on top and square the deck. Your key card is now right on top of the selected card. At this point, you don't know what the selected card is, but you do know your key card, and the selected card is directly below it.

Figure 7

To get the most impact out of the upcoming dealing portion of the trick, you want the selected card to be near the middle of the deck. You may need to make a simple adjustment to bring the card close to the center. If the spectator initially cut a small packet, you will now cut about two-thirds of the deck and complete the cut. This will center the selection. If he or she initially cut a thick packet, you will now cut about one-third of the deck and complete the cut. If he or she initially cut close to half, you will now cut the deck near the middle twice. This cutting not only seems to mix the cards, it returns the selection to near the center.

Pick up the deck and hold it in your left hand. Explain that you are going to use your instincts to find the selected card and that it's important for the spectator to

keep a straight face and not react if they see their card. Say, *"As I deal through the cards, don't help me out. Don't give me any clues, or react to any cards you see. Keep a poker face."* Start dealing cards, one at a time, face up in a pile onto the table. After dealing about eight cards, pause and say, *"My instincts tell me that the next card is going to be... No. Not yet."* Continue dealing cards face up. You are looking for your key card (the Seven of Spades, in our example). When you see the key card, do not stop dealing. Note the card immediately after it and remember it. Let's say it's the King of Diamonds. Remember this card (and now you can forget the key card—a common mistake is to forget which is the key card and which is the selected card).

Figure 8

Deal a couple more cards, but make sure you do not entirely cover up the selected card. Make sure the index remains in sight (figure 8). You want the audience to clearly see it, and think you have failed at the trick, because you have already passed the selected card. Pause and say, *"My instincts tell me that the next card... No. Not yet."* Deal three or four more cards. Say, *"This is it. The next card I turn over will be your card!"* Take the top card of the deck into your right hand and hold it face down. Say, *"Do you believe that's possible? That the next card I turn over will be your card? Yes or no."* The spectator will say no (because they see you've gone past the selected card). Now here comes the wager. Say, *"Would you be willing to bet a dollar on it?"* (If you think you can get away with it, bet twenty bucks.) Sometimes a spectator will try to inform you that you have "messed up" or already gone past their card; so if they start to say anything other than, "No," interrupt them and say, *"Don't say anything. No spoilers"* or *"Just yes or no. Are you willing to bet?"*

If the spectator is willing, take the bet. Then put the right-hand card back on top of the deck, reach down, pick up the selected card, and turn it face down. The next card you turned over *was* the selected card! You want this climax to be quick and efficient. You do not want to dig through the dealt pile looking for the selection. That's another reason you left the selected card visible as you dealt the last few cards.

Do you see how you can win some money with just a little cheating and a few clever words? Once the spectator has been had, they will often drag over friends to fall prey to the same game. One final note: whatever money you make with this trick, remember to send Penn & Teller their ten percent.

PRACTICE DRILLS: Practice picking up the deck from above and pointing to get the peek. Practice so that you can tilt the packet as little as possible and as quickly as possible and still peek the bottom card.

Practice quickly dealing cards face up into a pile. You don't want to deal the cards all over the table. Practice dealing them into a fairly neat pile, but not *too* neat. It needs to be just messy enough that it looks natural that the selected card can still be seen after you've dealt a few cards on top of it.

FINAL NOTE: If you really dig card tricks, and most magicians do, here are three highly recommended books.

The Royal Road to Card Magic (1948) by Jean Hugard and Frederick Braue.

Expert Card Technique (1940) by Jean Hugard and Frederick Braue.

Card College, volume 1 (1995) by Roberto Giobbi.

CHAPTER TEN

EXPLOITING THE BEST OF THE HUMAN BRAIN

The reason magicians are able to create deceptive magic is not because people's perception, reasoning, or brains are defective. It's actually the opposite: magicians are able to fool people, *because* the human brain works so well. You can't fool someone who doesn't understand object permanence.

The ability to recognize symmetry and patterns is wired into the human brain. People are drawn to symmetrical patterns and will seek symmetry where there is none. It's easy to see how the recognition of symmetric patterns has been helpful to humanity's survival, evolutionarily.

The human brain can recognize visual patterns more effectively than computers can. Making assumptions is as automatic to your brain as breathing. The way the human brain uses patterns, structures, or routines—what scientists call mental models—makes people efficient. Your routines are so ingrained that you can do them without thinking: getting dressed in the morning, driving to work, raking leaves. The ability to go on autopilot means your brain can use that time to think about something else entirely. In fact, recent studies have shown that people are on autopilot like this almost half the time.

Our brain is so good at pattern recognition that it creates vulnerabilities in the system, and magicians exploit these imperfections. People will see a pattern where there isn't one. Patterns are comforting, and people will project patterns onto situations. It's easy to set up an expectation for an audience and then introduce an element that is not what they perceive it to be.

One of the things the human brain is *not* good at is remembering things accurately. Brains are very poor recording devices. Scientists are continuously learning more about how unreliable eyewitness testimony is. This is a disaster for the criminal justice system, but great for magicians. When you think about an event in your life, you are not remembering the event, you are remembering the last time you remembered it. All of your memories are copies of copies of copies.

Magicians don't merely rely on people getting a few details wrong about what they saw, magicians can make sure their audiences remember events that didn't even happen. Let's imagine you have a trick that relies on a stacked deck. If you give the stacked deck a false shuffle (a shuffle that seems to mix the cards, yet retains the order), and then have two spectators cut the cards, you can say, "We shuffled the cards, you cut them."

The spectators will accept that statement and remember that the cards were shuffled. Later on, before the climax of the trick, you can say, "We all shuffled the cards." The spectators will misremember that they shuffled the cards. And if the spectators are convinced that they shuffled the deck, the trick is impossible to explain. Penn & Teller's mentor, Johnny Thompson, called this

technique "Closing the Doors"—you are closing access to the parts of the process you don't want them to remember.

The brain also simplifies and streamlines. Every day, your senses take in terabytes of information and your brain filters most of it out and makes millions of assumptions about what you are encountering in the world. This is what makes survival possible. If you couldn't rely on experience, logic, and generalization in order to make assumptions about the things you see, you would have to examine every single object you encounter.

Again, magicians exploit the speed and efficiency with which the brain makes assumptions. You can only see one side of an object at any particular moment. When you see an object, your brain automatically makes an assumption about the side you can't see (usually it's that the back side is similar to the front side). This phenomenon is exploited in magic constantly. The backs of many objects used in a magic show, such as boxes, cabinets, and props, are not what you naturally assume them to be.

The half-point of your brain's life is when you are approximately eight years old. By that point in your development, your brain has brought in about half the information it is ever going to process. This is because the brain encodes new experiences into memory, but not familiar ones. In your early life, most experiences, even mundane activities, are new. As you get older a smaller percentage of your experiences are new. During the first years of your life, your brain creates algorithms for how things work and how to do things: this is how a glass of water fills up, this is how you run, walk, use a fork, catch a ball, fall down, climb stairs, turn on a light.

To function in the world you have to have a model of the universe in your brain, and you have to take a lot of things for granted. Magicians know how to make small adjustments to those things that you take for granted, so that they can create experiences that are deeply surprising.

Two things are true about everyone: we all have to deal with reality every day, and we all crave novelty. Through magic, people get to experience events that defy reality. Magic gives them both novelty and a relief from the monotony of reality. Magic tricks explode in the brain like fireworks. It also shakes people out of preconceived notions and assumptions, and turns off "autopilot," waking people up from sleepwalking through life.

ARE WE LIVE?

In the late 1980s, Penn & Teller made six appearances on *Saturday Night Live.* They were hired by producer Lorne Michaels, who operates on the philosophy that comedians produce their best work in a state of blind panic. This bit aired on February 8, 1986. They believe it is the best bit they ever did on that show, and it was shot in a state of blind panic.

It came about one day when Penn said, "What if we did a whole bit hanging upside down?" He explained that the studio audience would see that they were hanging upside down, but they would invert the image for the viewers at home. Penn wondered what tricks they could do with reversed gravity in play.

They bought gravity boots, built a framework from which they could hang upside down, and attached an upside-down tabletop. They borrowed a video camera and a monitor—in the late '80s not everyone owned a video camera, and the idea of combining a phone and a camera would not have sounded like science fiction, it would have sounded like insanity—and they spent several weeks doing inverted magic, trying to figure out what was possible.

(By the way, here's a puzzle for you. If you want to set up a camera and a TV monitor, so that you can watch yourself upside down *while* upside down, how should the camera be set? Right-side up or upside down? And how about the monitor? Think about it.)

Of course, it was important that the home viewer did not suspect they were upside down. They wanted to avoid tricks that looked too much like miracles, and instead create ones that looked like standard magic, just a little more amazing. They started with a version of the Rising Card trick. They just dropped the cards onto the floor, but upside down, the cards seemed to fly upward. Just as they hoped, it looked good, but not too good.

To make a lightbulb "float" through a hoop, they had to throw it through the hoop from hand to hand. That may not sound like much, but imagine doing it while hanging by your ankles with blood bursting from behind your eyeballs, and then throwing and catching something from hand to hand. Everything you know about coordination is suddenly wrong. Penn is a juggler, and even he went nuts learning this maneuver.

To create the illusion of normal gravity, they sunk magnets into the tabletop, and casually picked up and set down items, such as a cup of water (which was of course empty and had a steel shim in the bottom). They thought that the bit would be too obvious to the home viewer if every trick was about defying gravity. So, they used the reverse gravity as a secret method to make things disappear. Teller would hide objects in his hand or behind a piece of paper. The camera would zoom in so the hand or paper was at the top of the frame and the object could fly away without being seen. This, of course, required precise timing and framing by the camera operators.

Penn & Teller told Michaels all about the bit, and explained that the lights would have to be placed from below, the camera work would have to be precise, and the slightest error would blow the gag. They told him they could do it with just eight or nine hours rehearsal on stage. Lorne said they could have one hour on the afternoon of the broadcast. They felt the panic.

During their rehearsal, the studio was as quiet as an operating room. Makeup artists silently covered their faces with heavy, yellowish makeup to keep them from turning too red as their faces filled with blood. Wardrobe people consulted in hushed tones as they taped their ties to their shirts and pinned their shirttails to their underwear, so their upside-down clothing wouldn't sag in telltale creases. The camera operators whispered into their headsets to ask the director what the hell he was trying to do. Everyone seemed to know the bit was doomed.

Eight hours later they were again hanging upside down, this time behind some folding screens Lorne had put up to hide their preparations from the studio audience. Cameras were rolling. They had not been able to do a complete, successful run of the entire routine during their rehearsal earlier. They were about to be embarrassed in front of millions of viewers. A stage manager counted, "Five, four, three, two, one," and the screens parted. There were titters from the live audience, who, of course, didn't yet understand the gag. Then Penn swore to the home viewers that what they were about to see would use no camera edits, blue screen, or back projection. To prove it, he asked the audience to testify. "Are we live?" he called. "Yeah!" they responded. They started to understand where the bit was going.

They began the magic. Cards "rose" and the audience now fully understood. Penn yelled, "Are we live?" and they yelled back, "Yeah!" They kept hitting every trick just right. Penn caught the lightbulb. The camera movements and framings were perfect.

Each time, when Penn yelled, "Are we live?" the "Yeah!" got louder, until people were screaming and choking with laughter. The sound pounded their faces and shook the walls of the studio.

Then suddenly all the hard stuff was done. The camera pulled back to reveal the secret of the trick that the studio audience had helped play on the home viewers. They dismounted and took their bows.

If you watch this clip on YouTube, you will see two men staggering with physical exhaustion and artistic ecstasy.

To this day, if Teller happens to see that footage, he gets red, dizzy, and blissful.

After they took their bows, they staggered to the dressing room and collapsed. But as Penn began to wipe off his anti-red makeup, he saw a creepy sight. His size, the inversion, the pressure and excitement, and the force of out-yelling the audience had been too much for the capillaries in his skin. His face was a web of broken blood vessels—the perfect image to summarize the day. They had done, perhaps, their best television bit ever, in a state of blind panic. They hate to admit it, but Lorne just might be right.

This bit has gone on to have a life of its own. Three years later Penn & Teller recreated it for the opening scene of their movie *Penn & Teller Get Killed* (1989) directed by Arthur Penn. The movie opens with the duo performing the same routine on the set of a fictitious talk show.

In 2017, on the fourth season of *Fool Us*, they again revived the bit. Of course, they're too old to hang by their ankles now, so they hired two young, talented female magicians, Jen Kramer and AmberLynn Walker, to perform it—demonstrating that women are the future of magic.

On Halloween 2018, *Good Morning America* hosts, Michael Strahan and Sara Haines, did a version of the bit involving Halloween candy. Recently, Strahan was a guest with Penn & Teller on *Late Night with Seth Meyers*. He said to Penn, "It was the hardest athletic thing I've ever tried. My hand-eye is really good. I have the record for most sacks in a season. I could not do that, how did you do it?" Penn responded, "Well, I did it once."

CHAPTER ELEVEN

ROPE TRICKS

Many of the classic plots in magic, such as the Miser's Dream, Levitations, Sawing a Woman into Halves, express fantasies or fears we've all had. Many tricks, such as the Torn and Restored Card, involve the restoration of something that's been destroyed or damaged — something we've all dreamed of doing. Such tricks are found throughout magic's history and were among the earliest magic effects invented. Scholars claim that the first known record of a magic performance—in Egypt six thousand years ago—describes the decapitation and restoration of several animals. You didn't want to be an animal in show business back then. Tastes evolve, of course, and in more recent times (we're talking about only four hundred years ago), Reginald Scot in *The Discoverie of Witchcraft* explained how to "cut a lace asunder in the middest, and to make it whole againe." He added, "This, if it be well handled, will seeme miraculous." That sentiment is as true today as it was then.

CUT AND RESTORED ROPE

EFFECT: *The title pretty much sums it up. You cut a length of rope with a pair of scissors and tie the two pieces together with a simple knot. You then slide the knot from the middle of the rope to near one end, then finish by sliding the knot entirely off the rope, restoring it to its original length.*

NEEDED: ***You will need from four to six feet of cotton rope*** *(a soft cotton/polyester blend will work). Clothesline or sash cord from a hardware store is perfect. You can use any thickness of rope—it's a matter of personal preference—although it is recommend you don't go any thinner than three-eighths of an inch. You also need* ***a good pair of fabric scissors****.*

PREPARATION AND SETUP: *Have the rope and scissors wherever is convenient.*

THE TRICK / STEP BY STEP: Hold both ends of the rope in your left hand, between the thumb and index finger, the back of the hand toward the audience, and the looped middle hanging down (figure 1). You will begin with a preliminary "convincer" that Teller does not perform in the video, but it's a nice ruse to throw in that helps make the trick more deceptive.

Figure 1

With your right hand, grab the very center of the rope and bring it up to the ends of the rope, where the left hand grabs it, with the center loop sticking up above the left hand to the right of the two ends (figure 2).

Figure 2

With your right hand, reach for the scissors, and as you do, the left hand "accidentally" drops the center of the rope (figure 3), making it necessary to repeat the procedure. However, this time you will do a secret move that simulates the previous action, and it makes the trick possible.

With your palm-up right hand, again grab the center of the rope and raise it (figure 4). Move your thumb through the loop of the rope, so that the rope is draped over the hand, and the fingers are free (figure 5). When the right hand reaches the left hand, the right index finger and thumb grab the rightmost strand of rope a few inches below the left thumb. Simultaneously, the right hand tilts down and the center of the rope slides off the back of the hand. This effectively switches the center of the rope for a section near one end (figure 6).

Figure 3

Figure 5

Figure 4

Figure 6

Figure 7

Figure 8

Without pausing, the right hand continues upward with the rope it holds and forms a new loop (apparently the center of the rope) that extends above the left hand, to the right of the two rope ends; the loop is held in place by the left thumb (figure 7). All of these steps happen in one smooth, continuous action.

Take the scissors, and cut the loop of rope sticking out of your left hand. Place the scissors down, and your right hand removes the rightmost and leftmost ends of rope from the left hand and drops them. It will appear that you are holding two approximately equal lengths of rope, however, you actually have one long piece of rope looped around a very short piece (figure 8). Your left fingers cover the junction where the ropes are looped around each other.

Take the two ends of the short rope and tie them with two overhand knots. With your left hand, grab the rope somewhere between the knot and one end, and hold it so the rope hangs down.

Say, *"Maybe the knot would look better down here."* With your right hand, grab the knot and slide it down the rope a few inches. *"Or maybe down here."* Slide it down a few more inches. *"Or maybe off completely."* Slide the knot completely off the rope and throw it into the audience. Hold up the rope with both hands to display that it is intact.

PRACTICE DRILLS: Practice "accidentally" dropping the loop of rope as you reach for the scissors. It has to seem accidental, and don't overact your reaction to it happening. In fact, don't act at all. Just stop and position the rope again.

Practice the secret switch of middle of the rope for the end section of the rope. It all needs to be one smooth, continuous action, with no hesitation or fumbling. It needs to look the same as the first time, when the action is legitimate and there is no switch. Go back and forth, doing the real action, then the action with the secret switch. They should look identical.

Practice tying the knot without exposing that you really have one small piece of rope looped around a doubled-over long piece. You need to hide this behind your fingers as you tie the knot.

"POLYESTER" AND GOSPEL MAGIC

Penn & Teller's trick "Polyester", which can be seen on YouTube is performed in the style of gospel magic and since they discuss gospel magic in the video, it might be helpful to define it here. Gospel magic is a genre wherein standard/hack magic tricks are performed to illustrate Christian messages or Bible stories. Most gospel magicians don't claim to demonstrate miracles or possess paranormal powers, they merely convey religious messages through the "visual parables" of magic tricks.

As you can imagine, it is always a combination of bad magic and bad theology. Penn, perhaps surprisingly, loves gospel magic. He doesn't mind that the magic is less than miraculous and that the comedy is strained. He just loves the sincere, overextended metaphors.

FINAL NOTE: If you're interested in rope magic, the best resource is *Abbott's Encyclopedia of Rope Tricks* (1941) edited by Stewart James. The paperback Dover reprint of this book is inexpensive and relatively easy to find.

CHAPTER TWELVE

PRINCIPLES OF PERFORMING

One of the questions you need to ask yourself—and think deeply about—is: How does the audience see you? If you're a kid, the audience knows you're a kid. You're stuck with that. You're not going to fool them into thinking you're a riverboat gambler or a vaudeville veteran. So use whatever you are to your own advantage. If you're a kid, be a kid, and capitalize on it. If you have a low-key, solemn demeanor, choose tricks that are more serious. If you're graceful or have good eye-hand coordination, lean toward more skill-based magic.

Incorporate props or concepts from your other interests, hobbies, or profession into your magic tricks. If you're a dentist or skateboarder or gardener, what tools of your trade can you do tricks with?

As you work on tricks and perform them repeatedly, you will learn what you can get away with and what you can't. Some people can get away with doing very serious magic and creating profound, freaky moments. Some people can't. Once you know how you are perceived by audiences, you can learn how to exploit that.

For example, most audiences believe that Teller does all the magic and that Penn does all the talking. Consequently, Penn can get away with things onstage that no other magician would ever be able to. While everyone is watching Teller, expecting him to be doing something sneaky, Penn can be taking a prop apart on the other side of the stage. Because of this, and also because it's very natural for him to do so, when Penn puts his hands in his pockets, no red flags go up. When Teller puts his hands in his pockets, it seems very suspicious.

Magic is more interactive than most of the performing arts. You cannot do magic by or for yourself, because magic only exists in the minds of the spectators. Over time you will develop an intuition about what the audience is thinking and what they are paying attention to. But it's really important you have friends, family, or other magicians you can rely on you while you are working on new tricks. It is very difficult to become good at magic without getting feedback from people whose opinions you trust. These confidants can tell you when they're seeing things they shouldn't see, what parts of your script are unclear, when you are speaking too fast, what fooled them, and what didn't. This is all really important, so it is vital that you find other people who are interested in magic that you can work with, and that you support each other.

Originality in magic is important, but it not supremely important unless you are a professional. If you are a beginner or a hobbyist, the best advice is this: learn tricks that you like and that are appropriate for your current skill set. You can't go wrong by working on the classics. They became classics for a reason. After you've been in magic for a while, and you understand the basics and know how to "sell" a trick to an audience, you will likely want to start creating your own tricks.

Creating your own tricks is deeply satisfying, and there are advantages. You will be doing material that no one else is doing, and you will stand out from the crowd. You will understand your own creations in a much deeper way than you will ever understand someone else's invention.

There are many ways to go about creating your own magic. Sometimes, when Penn & Teller have an idea, they will start rehearsing it without having a method—without having any idea how they are going to do it. This is a good, but really difficult, way to create magic. It's like jumping out of an airplane and then having someone hand you a parachute. They will walk through the trick as if there is no method required, as if it will just work without their having to do any secret maneuvers. They often discover things that are mind-blowing during this process. For example, they will discover that a certain point in a monologue feels like the natural time for Penn to put his hand in his pocket, and it happens to be the exact moment when he would have to secretly steal something from his pocket for the trick to work.

Rehearse the steps of a trick without regard to the method, and see what seems natural as you are presenting it. Would it be natural to have a spectator hold the deck or shuffle the cards? Would it be natural to use your own cellphone, or does it feel better to borrow one? Now work on the method.

Sometimes you can't be sure how an audience will react to your idea or if it is even worthwhile. If this is the case, consider stooging the trick. Now work on the method. If this is the case, consider stooging the trick. In other words, prearrange key parts of it with an audience member, or rig it so that a trick looks like it has happened, just to see if it gets a reaction. If it does, you know it's worth working on and you can now work on an actual method.

The most important rule of magic is: **Don't ever give away the secret.**

When you are first learning magic, you might have the urge to give your secrets away. But when you expose your methods, you realize quickly how much it hurts. Good tricks usually have dopey/unimpressive explanations. People then think that they're stupid and that you're dishonest. If you want to get credit for being clever, don't give away the secret.

That may sound funny coming from Penn & Teller, with their reputation for being "the magicians who expose the secrets to the tricks." It's a reputation that they cultivated early in they career, when they found that positioning themselves as magical outlaws who revealed secrets was good publicity. But it's not really true. They have mostly revealed the secrets to tricks that they've invented—methods that would never be used by any other magicians.

Publicity is not the real reason they have so many tricks based on the idea of giving away secrets. There are many reasons, and they are all theatrical. Talking about magic principles and elementary magic methods acknowledges that a great many audience members have learned a bit of magic when they were growing up. When magicians present themselves as superior beings performing for the naive and unsophisticated, it's just rude. It's much better to convey, "You all know a bit about magic—let's see if you can still be mystified." In a couple of tricks Penn talks about fundamental card sleights that everyone has heard of: palms, card forces, false shuffles, etc. This is an acknowledgment that their audiences are intelligent and virtually every one of them has read a magic book in their life or watched a YouTube instructional clip.

It's fun for an audience to fantasize about the romance of magic secrets. It's like crime fiction. Real criminals

are terrible people doing cruel things, but heist films are fun. Also, the methods Penn & Teller make up to expose their tricks are way more entertaining than the actual methods behind their other tricks. And it makes the audience think that the inner workings of all tricks are as interesting, creative, and difficult to execute as what they are exposing. The status of all the tricks in their show goes up.

So don't give away the secret. It's the most important rule in magic. The only difference between the way Penn & Teller think about this rule and the way most other magicians do is that Penn & Teller know it's an artistic rule, other magicians think it's a moral rule. Breaking this rule is not the equivalent of committing a heinous crime. Even if they actually exposed tricks, which they don't, it would not harm society. Show business is harmless. That's one of the great things about it. At your very worst, you make a piece of bad art, or you make somebody uncomfortable. You don't physically hurt anybody.

There are two common misconceptions about magicians: One is that magicians invent all their own tricks. The other is that magicians are very secretive and never share with each other how their tricks are done. Both of these are about as far from reality as you can get. Very few magicians perform primarily original material. Most do classic tricks or tricks they have bought or have learned from other magicians. There is a long, glorious history of magicians writing books to sell to other magicians that divulge how all of their tricks are done. Magicians regularly do lecture tours where they travel to local magic clubs and explain the workings of many of their creations.

The social contract that exists among the magic community is that if someone has published the workings of a trick in a book, magazine, or on video, and you purchase that book, magazine, or video, you have the right to perform it yourself. Often, when magicians publish their tricks, they include the entire script, the "patter" they say when performing it. And if you've purchased it, you can do that material, word for word, and find out what it looks like on you. There is something interesting about the idea of doing someone else's creation, exactly as published, and finding out how to put yourself, your worldview, and your heart into the material. It is something Penn & Teller strongly suggest that you do. It's a good way to learn, especially when you're beginning. You will find that some of the script works for you and some of it doesn't, some of the moves are a good fit and others aren't, some of the jokes work and some don't. Your style will develop over time.

As a general rule, learning from books is better than learning from videos or YouTube clips. When you are reading something and figuring it out, you are forced to imagine yourself in the situation, saying the words in your voice, and doing the actions with your physicality, and "you" seep into the material. When learning from video, you only learn how to imitate, both in delivery and execution. It's much harder to inject yourself into it.

Reading magic books will benefit you more than buying magic props. While there are lots of good tricks that you can buy, having knowledge is ultimately much more valuable. If you want to be able to perform magic informally, you want to be able to do it with things that are at hand, instead of anomalous contraptions that you bought at a magic shop.

Be aware that a lot of people who write magic books are writing to fill space and not to teach you how to do tricks. When a book says that you can vanish a small child by hanging the child on your back with Velcro, be suspicious of that book. At least in a magic video, the creator has to actually perform the trick for the camera, and generally it's harder to get away with a video explanation that bears no relationship to reality.

There are thousands of magic books. How do you know which ones to buy? If you want to learn magic deeply, here's some advice: If a magic book is really easy to read, and if it says, "Here's the trick. Come up with your own presentation," put that book away. If the magic book is a

little difficult, and you are forced to go through it step by step, and you have to work at it a little bit, and it gives you the words to say, that is probably a better choice for a book. Classic magic books that are still in print after decades are generally a safe bet, and if you are unsure if a book is a good fit for you, do some research online or ask someone who works at a magic shop. Here are three highly recommend books for learning magic with cards, ropes, and coins, respectively:

The Royal Road to Card Magic (1948) by Jean Hugard and Frederick Braue.

Abbott's Encyclopedia of Rope Tricks (1941) edited by Stewart James.

The New Modern Coin Magic (1966) by J.B. Bobo.

As a bonus, here are three more books not mentioned in the video that are worth checking out:

Expert Card Technique (1940) by Jean Hugard and Frederick Braue.

Card College, Volume 1 (1995) by Roberto Giobbi.

David Roth's Expert Coin Magic (1985) by Richard Kaufman.

CHAPTER THIRTEEN

CAUSE AND EFFECT

In real life, cause and effect seems to be a universal absolute, but it is actually an abstraction. It's symbolic. Cause and effect, as people generally understand it, is a useful and important oversimplification. If people don't see cause and effect, it's impossible for them to live their lives. That illusion is so strong that it has to be in theatre, magic, and day-to-day life. Magic takes that oversimplification and distorts it ridiculously. Even though all cause and effect is a slight illusion, magical cause and effect is a complete illusion. All magic has false causes and effects.

It seems to not just be a convention, but an absolute backbone of magic to indicate some sort of cause and effect: you need to have something for the audience to ride on. At the very least you have to snap your fingers. There needs to be what magicians call a "magic moment." In the past, Penn & Teller have tried to eliminate this in their tricks, but have found there is a human need for the comfort of cause and effect that seems to be unshakeable. By putting cause and effect into magic tricks, you give the audience something they can hold onto, if just for a moment.

Penn has always liked the idea of there being no cause and effect in magic. In theory, one would think you could have no cause and a spontaneous effect. Through experimentation, though, Penn & Teller have learned that if you attempt this, and present something "just happening" it is unsatisfying. Their trick "CellFish" (which you can see in Bonus Chapter 3) begins with Penn & Teller borrowing a cellphone and making it vanish. At first, Penn was in love with the idea of the phone "simply vanishing." He wanted the phone to get passed around from Penn to Teller to the audience member, and then suddenly the phone would not be there. It was terrible. There was no effect for the audience. There was no magic moment, and it did not read as a trick. Their solution, in keeping with their style, was to vanish the phone with a method that is visible to the audience, but that fools the onstage spectator.

One of our greatest talents as human beings is the ability to detect patterns we think of as cause and effect. Sometimes this cause-effect relationship is rational and reliable, for example: if people get polio vaccinations, they don't get polio. Sometimes those connections are gut-felt but untrue: the old lady down the street looked at me funny and I got stomach cramps—she must be a witch.

Gut-felt connections like this are what people call "magical." In the real world, they usually cause problems. Onstage they can be not only harmless, but positively enjoyable. This tendency to see cause-effect connections (whether real or magical) is something magic is great at exploring. There is a trick that Teller has done for decades called "Shadows," in which a spotlight casts the shadow of a rose onto a paper screen. He takes out a carving knife and slashes the *shadow* of the rose on the screen. As he cuts the leaves and petals of the shadow, the real leaves and petals of the rose break and fall. Teller is rather fond of endings that turn cause and effect inside out, so at the end, when he accidentally cuts his thumb on the knife, the *shadow* of the thumb bleeds.

This trick is based on a false cause-and-effect idea that you see in witchcraft and tribal lore, that by hurting a picture or representation of something, the actual thing itself can be destroyed. It's the classic voodoo doll being stabbed with a pin to give somebody appendicitis. This is called "sympathetic magic," because two things seem to act in sympathy. It's malarkey, but speaks to something pretty deep in most people. When you believe it in real life, innocent people get burned at the stake. But when you put it onstage, where it's harmless, it can send shivers up your spine the way a beautiful poem or song can.

If you merely put a ball into your hand, then open the hand and the ball's gone, the audience has nothing to stop them from realizing instantly that you never really put the ball into the hand to begin with. But if you engage their minds with a make-believe cause, even something as simple as a dramatic or funny tap of a magic wand, you can often get them to click into that primitive, intuitive, gut-instinct thinking—even for just a moment. That's one of the reasons that magic wands have been part of a magician's kit since ancient times. Sticks have a magical quality. Royalty have scepters. Conductors have batons. And of course, for Freudians the meaning is sexual. But beyond all that, everybody knows that a stick is pretty much the quintessential tool—a weapon, an extender of the body's power.

A magic wand is the other basic kind of magical cause, which is referred to in cultural studies as "contagion." A "contagious" magical cause means touching a charmed object to another object that reacts to the power of the charm: the wand is imbued with magic power and when it contacts a ball, the ball gets a jolt of energy that makes it go away. Love potions are another form of "contagious" magic because the magic liquid has to come in contact ("contact" comes from the same Latin root word as "contagion") with the body of the person being enchanted.

In the twenty-first century, waving a wand is the lazy, cliché way to indicate cause and effect. You should put some thought into what your "magic wand" will be; put a twist on it, something that is pleasing on an artistic, intellectual level. Magicians have used amulets, lucky coins, pixie dust, salt, incantations, cigarette smoke, snapping their fingers, and many other objects or gestures to "make the magic happen." You might think the way around the cliché of the wand would be to just not do anything, but there doesn't seem to be a way to make that work. You can't just eliminate the waving of the wand. You need to replace it with something better.

As a magician, if you can invent a cause that's so emotionally satisfying that it's fun to think about, the audience may find itself drawn even farther away from the utilitarian trickery that's actually making the effect happen. And if you invent a really cool cause—something that seems delightfully appropriate to you—you're injecting your own personal touch into the trick. That, in the end, is a big part of what's great about any art: putting something you thought or felt into somebody else's head and heart.

THE RED BALL

There is a trick that Teller does wherein a large red ball is animated and seems to behave as if it's alive (you can see a portion of this performance in this Chapter). It is based loosely on David P. Abbott's Floating Ball, the secret being that the ball is suspended on a thread. The exact hook-up is fairly sophisticated, but it still boils

down to a thread. Teller spent an hour onstage every night after their show for a year and a half experimenting with the Floating Ball trick, and the idea evolved that the ball would not float, but would come to life. The more he experimented, the more wondrous the situation got for him. He was astonished at the variety of incredible movements a simple thread could provide.

The deeper you get into magic, the more mystifying your amazement becomes. There's an intermediary stage where you go, "Oh, is that all there is? It's just a thread?" And then when you work with a thread for four years, and you work out what exactly must be done to make it difficult to imagine it could be the cause of the magic, and when you turn the workings of that thread into something profound, you veer right into a different kind of amazement. It's the amazement of a knowledgeable person. It's the amazement of the astronomer who has studied everything available about the stars, and who sees and understands the mechanisms that everyone knows about, but is still able to appreciate how mysterious it all is in the larger picture.

In early performances of the trick, Penn & Teller discovered that the audience was inclined to think the movement of this red ball was just some sort of electronic, remote-control thing. Whereas magicians knew Teller was using a thread, and thus were amazed that at every stage he was disproving the existence of the thread that they knew was there. So now, before the trick begins, Penn walks onstage and says, "This next trick is done with just a piece of thread," which is an absolutely true statement. It adds a complex and honest intellectual challenge to what would otherwise be a sappy fantasy. Letting the audience in on part of the method created more amazement.

If you'd like to learn more about The Red Ball and the trick it is based on, you can read about it in *House of Mystery: The Magic Science of David P. Abbott, Volume Two: The Book of Mysteries* (2005) edited by Teller and Todd Karr.

CHAPTER FOURTEEN

THE JOY OF MAGIC

When you perform, first and foremost, remember for whom you are working. Always treat the audience as you would wish to be treated. It's not easy to remember in magic, because your job is to fool them. But you need to fool people in the way you would like to be fooled yourself. This attitude is rare in magic, but Penn & Teller have always assumed that everyone in their audience is at least as smart as they are, and you should, as well. Your audience members can rebuild jet engines, write novels, design buildings, navigate the U.S. tax code, and run corporations.

Treat your audience with respect. Don't bring someone onstage and flirt with them; this is disrespectful, creepy, and unpleasant for the audience member and also for everyone watching. And don't insult the audience. Don't make jokes about things they have no control over, like their age, gender, body type, and so forth. While we're at it, don't make fun of them for things they have control of, such as their clothing. You wouldn't do that to someone you encountered on the street. Why would you do it onstage in front of a hundred strangers? You can have fun with, and riff on, something participants do or say when they're onstage, but the things that happened outside of that realm (physical characteristics and fashion choices) are off limits.

Despite the fact that there are magicians of every personality type, from all cultures, all walks of life, and all levels of society, there are persistent stereotypes associated with magicians. Think about the negative ideas people have about magicians; you may have some yourself. Many people have experienced bad magic, and it's something that we should all work against. In other words, don't be condescending and don't insult your audience. Don't be sexist. Don't think you're smart because you can do arbitrary tricks that have no emotional or dramatic content. You can be different. You can perform magic with empathy and thoughtfulness. You can be part of the solution.

The universe we are all dealing with is physics, time, conservation of matter, and retention of basic identity, which are things that everyone shares. So, when you do magic, you are dealing with things that are universal. An experience that breaks our shared reality, such as watching a solid object suddenly vanish, is the same experience for someone who is eight years old as for someone who is 98 years old.

A useful tool Penn & Teller use when they're trying to create magic or deciding what material to work on is to ask themselves: What would they like to see if they were in the audience? Ask yourself that. If it's something you would like, there's a chance that some other people would like it as well. Watching smug bastards strut triumphantly because they can palm a coin is not appealing. But an articulate, intellectually curious person sharing a beautiful creation is.

Penn & Teller believe audiences like to be challenged. People want a show that fills them with new words and ideas, that surprises them and takes them places they have never gone before. Audiences want a show that will stay with them and says something about the human experience that they can contemplate afterward.

Penn & Teller think it's a good thing for performers to be shooting over their audience's heads. When Penn & Teller see shows, they like it when they don't understand everything—if they feel a little bit left out. They like it when there are things they would only understand if they saw the show a second time.

One of the most essential things about art is that you want it to strike you with the sense of a miracle, and not in the sense of a magic-show miracle, but the miraculous feeling you can get from listening to Bach or looking at a Rembrandt. Great art of any variety can mystify. You encounter something that seems impossible, and yet some person has made it possible. For Teller, the fundamental quality for a work of art is for it to include a sense, at least for a moment, of the impossible seeming real.

BONUS CHAPTER NO. 1: ADVANCED STUDENT COACHING

Matt Donnelly is a cohost on Penn Jillette's podcast, *Penn's Sunday School*, as well as *Matt and Mattingly's Ice Cream Social*, which he hosts with Paul Mattingly. Originally from New Jersey, he now lives in Las Vegas with his wife and two sons. Matt spent 10 years teaching improv at the Upright Citizen's Brigade Theater and the People's Improv Theater in New York. He's cocreated several shows in Las Vegas, including Spiegelworld's hit variety show, *Opium*.

About two years ago, Matt started to learn magic. He created a character, Hill Bill, the Psychic Hillbilly, and opened for Piff the Magic Dragon (see Bonus Chapter No. 2) in comedy clubs around the country. He is now in the process of transitioning into performing magic in comedy clubs as himself, billing himself as Matt Donnelly, the Mind Noodler.

Matt chose to have Penn & Teller and Johnny Thompson (see Johnny's bio in Chapter 5: Card Tricks) coach him on a Chop Cup routine. It's a trick that requires a great deal of practice and more technical skill than other tricks he's learned so far.

The Chop Cup is closely related to the Cups and Balls, but Cups and Balls routines are usually done with three cups. Chop Cup routines, on the other hand, use only one cup. But the more significant difference is that a Chop Cup has a magnet in the bottom, and one of the balls also has a magnet in it. As you can imagine, this makes possible some very magical sequences.

The basic idea of a Chop Cup goes back at least as far as the 1700s, but it was popularized by Al Wheatley, who performed under the name Chop Chop (hence the name of the cup). His original Chop Cup was created in the 1950s and was made out of a section of hollow bamboo. Since then Chop Cups have been made from turned wood, metal, porcelain mugs, paper coffee cups, or in Matt's case, plastic Solo cups. Other than Wheatley, the two performers who are most associated with the Chop Cup (and largely responsible for its popularity) are Don Alan (in the U.S.) and Paul Daniels (in the U.K.). Clips of their performances can be found on YouTube.

Although a Chop Cup routine is not taught in this Chapter's video, here is one you can learn. It is based on Don Alan's routine and is very similar to the one Matt is working on.

THE CHOP CUP

EFFECT: *You offer to play a guessing game with the audience. The game is like a simpler version of the old three-shell swindle; it only involves a paper coffee cup and a ball made from a rolled-up piece of aluminum foil. The audience tries to guess whether the ball is in your pocket or under the inverted cup. The audience can never guess correctly, and at the end of the game, the ball vanishes and two huge balls magically appear under the cup.*

NEEDED:

- ***A Chop Cup and two matching balls*** *(one magnetic, one not). Chop Cups and magnetic balls can be bought in magic shops, but we will describe below how to make your own.*

- ***Two final loads*** *(large balls) or pieces of fruit, such as lemons.*

- *You need to be seated at a table.*

PREPARATION AND SETUP: *Different kinds of magnets can be used to make your own Chop Cup. Neodymium magnets work well, but even common refrigerator magnets can work.*

Get two paper coffee cups (or plastic Solo cups). Glue a thin, strong magnet to the interior bottom of one cup. Take the other cup apart, keeping the bottom portion and discarding the rest. (If using Solo cups, you will need to cut the bottom from one cup with a mat-knife or scissors.) Invert the bottom and glue it in place, wedging it into the bottom of the other cup, covering the magnet.

Let the glue dry. The cup will look completely normal and innocent, inside and out.

The balls can be made from rolled-up pieces of aluminum—just make sure that one of them has a strong magnet inside it.

Test the compatibility of your cup and ball by dropping the magnetic ball into the cup and turning the cup upside down. Does the ball stay inside the cup? Bang the cup on the table. Does the ball become dislodged? You want the magnetic attraction to be strong, but not too strong.

You need to be able to dislodge the ball easily—but not so easily that the ball could accidentally fall out when you don't want it to. If your cup and ball set doesn't work as needed, make another set, using stronger or weaker magnets accordingly.

Place the non-magnetic ball into your outer right coat pocket. Put the magnetic ball into your outer left coat pocket. The final load balls are placed in your lap between your legs.

THE TRICK / STEP BY STEP: With your left hand, bring out the mouth-up cup and display it. Let people see that it is empty. Place it front of a spectator, and let them look at or examine it. While she is doing so, reach into your left coat pocket, and remove the magnetic ball. Ask the spectator to put the cup onto the table, mouth up.

Drop the ball into the cup, then place your right hand over the mouth of the cup. Pick up the cup, shake it up and down, so everyone can hear the ball being bounced around inside the cup. Stop the shaking, turn your right hand palm up, inverting the cup and apparently dropping the ball into your palm (the ball will actually remain adhered to the bottom of the cup because of the magnets). Do not look at the cup as you do this. With your left hand, grasp the bottom of the inverted cup and slowly lift the cup. As you do, close your right fingers as if you were grasping the ball.

Place the cup mouth down onto the table without dislodging the magnetic ball. Say, *"I'll put the ball into my pocket."* Place your right hand into your pocket. Grab the regular ball that is in your pocket. Continue by saying, *"Then I'll put the ball back under the cup without you seeing me do it."* Remove your hand from your pocket with the ball. With your left hand, lift the cup a couple of inches off the table, and place the ball underneath. Cover the ball momentarily with the cup as you say, *"In other words, I'll sneak it out of my pocket and under the cup, and you won't see it."*

Lift the cup with your left hand, and take the ball into your right hand, then set the cup down with enough force to dislodge the magnetic ball. Replace the ball into your right coat pocket. Say, *"Does everyone understand?"* Without waiting for them to answer, use your left hand to lift the cup, revealing the ball, and say, *"Good!"* The surprise appearance of the ball will get a good laugh.

When the laughter has subsided, set the cup mouth up onto the table. With your right hand, pick up the magnetic ball, and drop it into the cup. Use your right hand to grasp the cup from above as before. Give the cup a couple of shakes, then turn your right hand palm up, inverting the cup as your left hand grasps the bottom of the cup. Pretend to take the ball into your right hand, but keep your right hand above the table this time as your left hand places the cup onto the table (without dislodging the ball). *"To repeat, here are the rules. I'm going to sneak the ball from my hand to under the cup."* With your left hand, pick up the cup, showing there is no ball underneath it, and replace the cup, this time dislodging the ball. *"But you won't see it."* With your left index finger, tap the back of your right fist and say, *"Keep one eye on my hand..."* Then tap the top of the cup and say, *"...and one eye on the cup."*

Open your right hand, and show that the ball has disappeared. With your left hand, lift the cup to reveal the ball. Set the cup onto the table, mouth up. With your right hand, pick up the ball and drop it into the cup. With your right hand over the mouth, shake the cup up and down. Invert the cup, apparently dropping the ball into your right hand. With your left hand, lift the cup as the right hand closes into a loose fist, apparently holding the ball, which is really adhered to the bottom of the cup. The right hand pretends to put the ball into your right coat pocket as your left hand sets the cup down without dislodging the magnetic ball.

Ask a spectator, *"Did you see me put the ball in my pocket?"*

Let them respond. Then ask, *"Where would you guess it is, right now?"* With your left hand, lift the cup as you ask, *"Under the cup?"* Set the cup down without dislodging the magnetic ball and ask, *"...Or in my pocket?"* Tap your right coat pocket with your right hand, and wait for a reply. Relax, lean back, and drop your right hand into your lap, and grasp one of the final load balls. Your response to the spectator will change slightly, depending on their guess.

If they say the ball is under the cup, say, *"No,"* as your left hand lifts the cup to reveal nothing. Quickly lower the cup and dislodge the ball. *"But if you'd said, 'In my pocket,' it would be under the cup."* Lift the cup to reveal the ball.

If they say the ball is in your pocket, ask, *"Are you sure you don't want to change your mind?"* as your left hand lifts the cup to reveal nothing. Quickly lower the cup and dislodge the ball. *"But if you stick with, 'In my pocket,' it will be under the cup."* Lift the cup to reveal the ball.

Either way, everyone will be focused on the ball, which has suddenly reappeared. In this moment of surprise, move the cup backward, and lower just the mouth of the cup, no more than that, below the edge of the table. Quickly bring your right hand (with the final load ball) up from your lap, and place the cup directly on top of the large ball, loading it into the cup; in a continuing action, take the cup into the right hand, move it forward, and set it down, with the final load underneath.

With your right hand, pick up the ball and say, *"I have a confession to make. I'm using two balls."* Place the ball into your side jacket pocket. Remove your hand and place it into your lap, obtaining the second final load ball. Continue by saying, *"But I didn't think you'd mind, because the second ball..."* Pause as you lift up the cup with your left hand to reveal the large ball, then say, *"...is much bigger than the first one!"*

As the spectators react, bring the cup the edge of the table. Quickly bring your right hand up, and place the cup directly on top of the second large ball, loading it into the cup. Then, in a continuing action, take the cup into the right hand, and place the cup onto the table with the large ball underneath it.

With your left hand, pick up the first final load ball and place it on top of the inverted cup. This makes a nice display and helps make sure that no one grabs the cup before you get a chance to reveal the second final load. To finish the routine, say, *"Where this ball comes from is not the big mystery. The big mystery is where* this *one comes from."* Lift up the cup to reveal the second large ball.

BONUS CHAPTER NO. 2: PIFF THE MAGIC DRAGON

Piff the Magic Dragon is a genuine magic dragon. Think Larry David in a dragon suit performing jaw-dropping magic tricks, and you're on the right track. He came to prominence with appearances on *Penn & Teller: Fool Us* and *America's Got Talent*. He has over 100 million online views, he's sold out shows across the U.S. and Canada, and he has a residency at the Piff the Magic Dragon Theatre at the Flamingo Hotel in Las Vegas, now extended through 2019.

In contrast with Matt Donnelly, who was learning a classic magic routine, Piff decided he would get advice and coaching on a new routine he was creating largely from scratch. The routine was inspired by the work of Claude Conlin, a notorious mentalist, con man, and possible murderer who performed under the stage name Alexander, the Man Who Knows. Posters with his face and catchphrase are highly sought after by magicians. Alexander's career lasted from about 1915 to 1927, and he is reported to have been the highest-paid mentalist in the world.

Much of Alexander's act consisted of what magicians and mentalists call "Q&A," which, of course, stands for Questions and Answers. In his "Q&A" act, people would write down questions on slips of paper, the slips would be collected in a bowl, and Alexander would answer the questions, apparently without reading the slips of paper.

Piff thought it would be much funnier if it were performed by a dog. And not just any dog, but Mr. Piffles, the World's Only Magic Performing Chihuahua™. So, with an act made up of nothing but process and diminishing returns and a barely functioning Bluetooth turban, he arrived to work with Penn & Teller. What could possibly go wrong?

BONUS CHAPTER NO. 3: PENN & TELLER LIVE AT RIO LAS VEGAS: "CELLFISH"

"Object to Impossible Location" tricks have been a staple in magic shows for centuries. Two of the most popular are Card to Wallet and Bill in Lemon. You can guess exactly what happens in those tricks from the titles alone. Very often, Object to Impossible Location tricks are done with borrowed objects. One hundred and fifty years ago, pocket watches were often featured in these tricks. Fifty years ago, magicians were more likely to borrow wristwatches, for obvious reasons.

Nowadays the go-to chronometer for most people is a smartphone, so when Penn & Teller decided to create a post-modern Impossible Location trick, a smartphone seemed like the perfect object to feature. It's a universal yet personal object that the owner can quickly identify. It's big but not too big, and it has two features that seem like they were made for magic: You can call it and it will make noise, and it has a video camera built in. Penn & Teller wanted to exploit the hell out of those features. Also, as far as they were concerned, using the spectators' customized ringtones really changed the game for this trick. Having the phone ring out in the audience is a great convincer that adds another layer of deception.

Having figured out what object to borrow, they needed to figure out what the "impossible location" would be. Teller remembered a trick of Jean-Eugène Robert-Houdin's (the father of modern magic). In his *Memoirs,* he recounts a performance before King Louis-Philippe I, where he loaded a borrowed ring into a pistol which he fired through an open window. He then opened a box that contained an enormous fish, and the ring was in its mouth. Penn & Teller knew that a fish was an amazing "impossible location" into which one could load an object, because they had done a bit on TV with David Letterman in which Letterman's wristwatch ended up inside a fish.

There are many layers to this trick, and they all had to be figured out by brute force; there was no waiting for inspiration. Penn & Teller sat down with Johnny Thompson and Mike Close and said, "This is a great idea. How do we do it?" Close came up with the clever idea to adapt a move normally done with playing cards to a dead fish. It's interesting how knowledge of one branch of magic can inform another branch.

The final piece of the puzzle that Penn & Teller love (maybe more than the spectators do) is that the spectator gets a video on their phone that shows how the trick is done. Sometimes the video is extra special, because occasionally the whole crew wears wizard hats and they do a dance.