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"Penn and Teller and the recreation of heritage magic"

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For 40 years, the magic duo of Penn and Teller have put a modern spin on many historic magic tricks such as underwater escapes, the double bullet catch, knife-throwing, and sawing tricks. It might be just as accurate to say that rather than "perform" magic, they "deconstruct" magic. Their acts of deconstruction take multiple forms. Known, and often reviled, for "revealing" how traditional magic acts are performed, Penn and Teller in fact don't demystify magic. Rather, by breaking down the process by which magic is created via the magician's body and the spectator's brain, they re-engage wonder at the abilities of a skilled magician, and the fallibility of our own perceptions. On a macro scale, they deconstruct the practice of magic performance itself, subverting traditional tropes of costume, behavior, pretense, and labor expected of magicians. Penn and Teller erase the separation between magician and subject, putting their own bodies on display and upsetting the traditional hierarchy of magician>assistant>audience. They reposition the female assistant from victim to colleague, and move spectators from the role of dupe to that of critical participant. On a micro scale, they deconstruct the process of magic, illustrating how the skills of magicians interact with the spectator's perception to trick the mind. As they reveal the secrets of magic they suggest the adage that "skepticism is not enough" to protect ourselves from the machinations of con men. In the process, they foreground the vulnerable human body and susceptible human perception and ask audiences to critically consider the risks and deceptions of everyday life.

From the very beginning of their partnership, Penn and Teller have consciously subverted the expectations of audiences and deliberately and vocally demeaned the stereotype of traditional magicians who pretend superiority over their audiences and display a pretense of secret, arcane knowledge. At the same time, they are fans of the great magicians like Houdini who didn't pretend to have special powers, who debunked claims of psychic or supernatural powers. They honor the hard work of magicians who created and perfected new tricks, who respected their audiences, and who were laborers in the field of popular entertainment. Their commentary on traditional magic, their subversion and reworking of traditional tricks and performance relationships, alongside their homage to the great magicians of the past make Penn and Teller magic's own historiographers. Every show can be seen as a performance genealogy, deconstructing how magic works, how it relates to everyday life, and how it has changed over the years. All of Penn and Teller's heritage tricks are palimpsests, presenting new interpretations and twists on top of still-visible and familiar frameworks.

As described and applied by Joe Roach, genealogies of performance map the developments of a performance form over time, through the bodies and spaces involved, as well as through the methods it uses to adapt to new times and audiences. Given magic's imposition on both the human body (in tricks that "endanger" subjects) and brain (in tricks that take advantage of failures of perception), it benefits uniquely from the fact that, as Roach puts it "Genealogies of performance attend not only to "the body," as Foucault suggests, but also to bodies –

to the reciprocal reflections they make on one another's surfaces as they foreground their capacities for interaction" (*Cities of the Dead*, 25). I'm not the first person to see the usefulness of Roach's concept to examine the performance of magic. James Peck uses it to trace the connections between magic acts and financial wizardry since the 18th century, noting that such genealogies "make visible the meanings, desires, and, most importantly, values that historically enduring performance practices constitute, transmit, and sustain" ("Magic and Finance" 108). Penn and Teller, as they present their own genealogy of magic onstage, "make visible" the illusionism used not only by other magicians, but also by other carriers of social values like religious leaders and politicians. Peck also notes as particularly apropos to magic Roach's explanation that "Performance genealogies draw upon the idea of expressive movements as mnemonic reserves, including patterned movements made and remembered by bodies, residual movements retained implicitly in images or words (or in the silences between them), and imaginary movements dreamed in minds" (*Cities of the Dead* 26). In fact, that description could be used as a reference to the cognitive processes exploited by magicians in the execution of every performed illusion. I would like to use this concept of performance genealogy to examine Penn and Teller's performance of heritage magic tricks, and their assumption of the roles of historiographers, as the methods by which they communicate their message of informed skepticism to a postmodern audience.

Magic in the body

Penn and Teller's performance of historiography is not subtextual. When they perform heritage magic it becomes part of their text. The team often discusses the history behind the tricks they do, partly to make clear their subversion of the tradition. Certainly other magicians discuss the tricks they perform in a historical context. Although some, like Ricky Jay, do it in homage to their predecessors, they usually do so in order to highlight the apparent danger in the trick, often by informing the audience of magicians who have supposedly been injured or killed doing it. Penn and Teller, however, consistently remind their spectators of the "trick" element of "magic trick." Their goal is to highlight skill and illusion, not to convince the audience that they possess any sort of supernatural powers. The patter that Penn does (he's the one who talks on stage, while Teller remains silent throughout the performance) before each trick acknowledges that other magicians have done the trick dangerously, but that their trick is better because it's not dangerous. He says, "When we do little jokes in our show about stuff being dangerous, it's always jokes, and the people who are selling real danger are people that I don't want as my friends." He believes if anyone gets hurt, even a little, on stage, "part of the beauty of our show collapses" ("On Danger").

Nevertheless, the vulnerability of the human body is foregrounded throughout their performances. The constant reminders that no one is actually in danger allow spectators to set anxiety aside and consider the *potential* for harm, as well as the ludicrousness of risking harm to another person for the sake of a magic trick. Despite these assurances, the possibility of violence, and the simulation of

violence, keeps spectators' brains in a constant state of processing theatrical cues. They are more than usually alert, because, as Lucy Nevitt notes, "The process of conceptualising violence requires both theoretical abstraction and empathetic imagination" (15). However, most considerations of violence in the theatre start from the assumption that "The context of a play in a theatre also guarantees non-harm and so enables the violent actions and intentions to be playfully, imaginatively and seriously explored" (Nevitt 47). But in the performance of magic, that guarantee is less secure, and despite Penn's exhortation that "If you're coming to our show because we might get hurt, fuck you . . . we don't want you" ("On Danger"), without the anxiety over what might come next, both the abstraction and the empathy become much more difficult to achieve. So while they abhor magicians of the past and present who ratchet up spectator anxiety about real danger, Penn and Teller's twists on heritage tricks very often take simulated violence to grotesque levels.

Penn's patter around heritage tricks often mixes homage with condescension, explaining that they've put a modern twist on familiar tricks because the traditional presentation is "lame" or just a "stupid trick"¹ that everyone has already seen. One tradition they seem to think is lame is the use of sexy female assistants. Although they've loaded their television appearances with Las Vegas showgirls in minimal attire (or, in England, no attire), when they use an assistant in their actual routines it is either a volunteer from the audience, or, when it's a magician's assistant she is introduced by her full name and treated as another magician. Francesca Coppa has noted in her article "Magicians' Assistants and the Performance of Labor" that the effect is one in which the magic show becomes "a single, unified subculture that includes magicians, assistants – and the audience" (102). Everyone in the room is presented as potentially vulnerable, which both accords respect to the audience, and makes necessary the constant reassurances (through direct reference or humor) that very little danger is being posed to anyone on stage.

The fact that Penn and Teller are a pair makes this near-equality of labor possible. A single magician must perform her magic on others, unless she's doing an escape trick, which is inevitably enabled by subservient assistants. With two magicians onstage, they can perform magic on each other, ostensibly endangering each other in a sort of morbid competition. Most of the time, it is Teller's body - the smaller, silent, older body of the two - that appears to risk the most in these competitions. Teller is the one performing an escape from a straitjacket over metal spikes as Penn holds the rope and recites "Casey at the Bat" with increasing speed in an attempt to finish before Teller is free. Teller is the one in the water tank (attempting to break Houdini's world record for holding one's breath) who "drowns" during a "failed" card trick performed by Penn. Teller was the one first sawed in half on David Letterman while Penn attempted to impress Dave with his

¹ All quotations from Penn's patter during tricks are taken from readily available YouTube videos or from my own notes taken during performances. Their shows are fully scripted and Penn deviates from the text very rarely, even when they have performed a trick for many years.

new "work in progress." But sometimes the danger is equal, as when the duo shoot at each other in their version of the bullet trick, or when they both got naked in front of audience volunteers in order to show that they weren't hiding any props. And occasionally Penn's body is assaulted, as when he was mangled by Teller in a twist on an old torture trick, or when, in a reverse of the traditional knife-throwing trick, an audience member is invited on stage to throw knives at him.

That last heritage trick – the knife-throwing trick – is a good example of how P&T use traditional magic tricks to forward their project of "debunking hokum," which, oddly enough, includes magic. Underlying all of the wonder and grotesqueness and silliness in their shows is an invitation to skepticism that the duo hopes spectators will extend to all the "confidence men" in society, which to Penn and Teller include religious tricksters, politicians, and anyone trying to convince you of something too good to be true. One of their techniques is to expose the secrets behind magic tricks so spectators can see how the effect is achieved. In their knife-throwing trick they employ a dizzying palimpsest of "reveals" and "tricks," none of which are actually what they appear to be. Traditionally, the trick is done with a sexy female assistant as the knife target. In Penn and Teller's show, they bring an audience member up on stage. Convincing her she's about to have knives thrown at her, they blindfold her. Then the whole audience sees that, in fact, Penn is talking to her from across the stage, pretending to throw knives, while Teller stands next to her and sticks knives in the board around her. Then comes the supposed reveal. Opening the target board, they reveal a latticework of metal rods and magnets that apparently draw the knives to them. Having convinced the woman of this "secret," they then blindfold her and have her throw knives at Penn. But they switch out the freely-held knives for knives on a fishing pole, so Teller can whisk them away as soon as they're thrown, while Penn sticks knives in the board around him. As she leaves the stage, only the woman believes any trick has been performed, until, of course, she is disillusioned by other audience members when she gets back to her seat. On reflection, a spectator might think that there has been absolutely no magic performed here. Everyone in the audience, including the audience volunteer, eventually, knows how the woman was fooled, and even knows that the "secret" method of the magnets was never used. But they might think that they have been initiated into a magician's secret and that they will know how it's done the next time they see a magician throw knives at someone. They might also marvel at the riskiness of using magnets to avoid impaling someone with a knife. However, the "reveal" is a sham. Magnets are not the method used by magicians to effect the knife-throwing trick. Penn and Teller have revealed nothing.

For their version of the sawing trick that they perform most often, they perform a similarly layered reveal. As in many of their heritage tricks, Penn introduces the illusion as "the one you always want to see in a magic act – the standard," that has been done for many years. He also claims that the set-up is "off the rack" and can be bought by anyone, and explains that magicians usually rush through the trick because if it's visible for too long "anyone can figure out the trick. We're okay with that." They perform the trick and leave the woman "separated" as they point out the visual illusion formed by the edge of the table. Many people are familiar with this trick and have already surmised that she is able to drop her rear

end down, out of reach of the spinning saw blade. Penn and Teller's actual trick comes after they remove the side of the table to show how she lies to avoid the blade. As they point out the additional safety measure of a steel rod that blocks the blade from descending too far, Teller removes the rod to show it off, and Penn drops the blade as if he thinks the rod is still there, and the blade drops all the way through the table, the woman screams, and blood and guts pour out from the gash in the box. In the majority of performances, the woman walks out from backstage at the end of the trick to demonstrate her continuing health. As in the throwing knives trick, nothing has truly been revealed. Penn and Teller have exposed only one method of making the trick work – a method readily discernable or already known to most – and have still performed an illusion that fools the audience. They have subverted their own trope of honesty and debunking with the aim of inducing a general sense of skepticism.

After years of performing the sawing trick in this manner, they changed it up and, for a television special called "Off the Deep End," performed the trick underwater. As Coppa notes, performing it in this manner put themselves as much at risk as the female assistant, and reminded spectators "that all participants in a magic trick are bodies first and foremost, and that bodies are subject to gravity, physics, and pressure" (102). Performing the same trick multiple ways reminds spectators that bodies can be manipulated in multiple ways, and just when you think you've learned what one is doing, it may do something entirely unexpected. They believe that constant innovation is an ethical imperative in magic, and that magicians who consistently repeat themselves deserve to have their tricks exposed. In point of fact, P&T don't ever reveal proprietary information; they expose tricks that they themselves have created, or classic illusions like the sawing trick, already readily available to anyone with the internet or a nearby magic shop. In their 1992 book *How to Play with your Food*, a primer for basic, everyday magic tricks, they reference Houdini's habit of "doing a trick until other magicians started to catch on and imitate him. Then he'd invent a cleverer method and go around 'exposing' his original method as that of cheap imposters" (209). Negotiating the line between deconstruction and homage is the role of the postmodern jester,² speaking truth to power and giving agency to the deceived.

A final example of Penn and Teller's foregrounding of the body in performance is one that perhaps goes against their mantra of 'no real danger.' Penn will occasionally end a performance with a demonstration of fire-eating. Fire-eating isn't properly a magic trick, but it has been performed in similar circumstances, and by magicians, since the earliest circus and carnival days. This puts it squarely in the domain of Penn, who first trained as a juggler and identifies with the community of "carnies," giving credit to Teller for being the master magician. Before he eats fire, sometimes alone, sometimes with fellow fire-eater Carol Perkins, he builds up to the event with a long monologue about his childhood fascination with carnivals and the

² Describing Penn and Teller as jesters is not a stretch, and the word, or at least the idea, has been used by many a reviewer. But the first rigorous application of the term to the duo was probably made by magician Andrew Musgrave in a blog entry now available only via the Internet Wayback Machine.

fire-eaters. Then, just like debunking a magic trick, he explains how fire-eating works. And he points out that the real danger in fire-eating isn't getting burned; it's the fact that every time you eat fire, you swallow some of the lighter fluid, which is poisonous to the liver. One last time in the show, Penn reminds the audience that the immediate threat of danger to the performer's body is small. But the toll that regular physical performance takes on the body is very real, as he acknowledges when he says, "Now I take the time to explain all of this to you in such detail because I think it's more fascinating to think of someone poisoning themselves to death slowly on stage than merely burning themselves, and after all, we're here to entertain you."

Magic in the brain

Eating fire and sawing people in half and escape stunts involving spikes or deadly gas or water certainly remind spectators that magic has always been about the vulnerability of the human body, and even as audiences become more sophisticated about magic they still find thrills in the potential and simulated violence in a Penn and Teller performance. The thrill comes from the brain's mirror neurons that allow us to physically experience actions we see on stage. When you see, or even anticipate, violence, "you can imagine its effect because your ongoing experience of your body frames your understanding of the world" (Nevitt 21). This response is largely beyond our control, even if we understand how it works. As with the violence, everything else in magic works on us because of how our brains function, even when we understand how the trick happens. Penn and Teller are fascinated by how magic manipulates the brain's functions, and this is what they hope to share with the audience when they expose the secrets of magic.

This understanding works best with the heritage tricks because of our familiarity with them. When we recognize the basic elements of a magic trick – like sawing a person in half, or throwing knives at someone, or escaping from a straight-jacket – our analytical minds are freer to attempt to process the details. This is one of the reasons why magicians often create elaborate stories around familiar tricks. Our brains are naturally attuned to narrative; it is one of the basic organizing principles that drives thought. Complex narratives draw the attention, leaving less cognitive energy to spend on analysis. When Penn and Teller "reveal" the secrets of magic, they carefully manipulate the level of story that surrounds it. They create a narrative around the reveal that draws your focus, making you miss the actual trick being set up in the background. The narrative around the reveal is most often done through direct address by Penn, as he explains how the trick supposedly works. It's not just the techniques of manipulation that are being revealed; Penn and Teller want us to understand how the trick works in our brains as well.

In the elaborate sawing trick discussed above, the story being told is all about how the trick is traditionally done, and how they have adjusted the trick. Because the whole story is about revealing the secret, when the "actual" sawing happens, it takes the audience by surprise. By drawing attention to one aspect of the trick box, they distract spectators from any other aspects of the box they might have noticed,

those which eventually allow the woman to escape backstage unseen. As he illustrates how the trick has historically been performed, Penn says to the audience, "It's based on a pretty flimsy psychological principle – you're not supposed to notice the change in height" of the woman from when she's standing and when she's lying down. As the audience pays closer attention to the woman's height, trying not to be fooled, they fail to notice that she's no longer in the box at all.

Penn and Teller operate within a series of fictions, continually destroying one while creating another. Their piece "Looks simple" (or "The seven basic principles of magic"), in which Teller demonstrates the seven principles through the trick of lighting a cigarette while Penn narrates and plays a bass guitar is a clear explanation of the skills needed in any magic trick. Penn describes and Teller demonstrates the seven skills (palm, ditch, steal, load, simulation, misdirection, switch). If this was the extent of the number then fictionality would clearly be almost nonexistent at this point of the show. As always, however, Penn and Teller retain some of the mystique of magicians and demonstrate their significant talent. As Teller reveals how he is making the cigarette disappear and reappear through the seven principles, he casually throws in other tricks that mystify, even as they are demystifying the particular trick of the cigarette. For example, as he demonstrates "palm," he first makes a metal ball appear from nowhere in order to show how he palms it. When he supposedly shows "switch," he switches the ball for a lemon without actually revealing how he does it. So although the two are apparently revealing their methods, the actual sleight of hand remains as mysterious as ever. After demonstrating the methods, Teller then applies them to the cigarette trick, showing in detail how it is done. This is done explicitly enough that anyone could reproduce it with some practice. At the end of the trick however, with no accompanying comment from Penn, Teller pushes the lit cigarette into his hand and makes it disappear. Although they appear to be breaking down a level of fiction by revealing the methods of their magic, they simultaneously build another fiction by piling unrevealed tricks on top of the revealed ones, once again making the spectator think twice about the inside information they have just learned.

Teller has taken his interest in how magic works on the brain into the field of cognitive science. For several years he has been working with the scientists at the Barrow Neurological Institute to discover what magic tricks can reveal about human perception. Pieces like "The seven basic principles of magic" and "Cups and Balls," which Penn and Teller do with transparent cups, illustrate how even when we understand how our minds are being tricked, a skillful magician can still fool us, because our brains don't work any differently just because we understand them. Even before cognitive science told us why, magicians knew that moving their hands in an arc rather than a straight line was more distracting to spectators and would mask the trick better.

Penn and Teller have used what science has taught them to create new tricks. One of their newest tricks takes advantage of change blindness – the tendency of our brains, when intensely focused on one task, to ignore all changes in the surrounding environment. In the Cowboy trick, a spectator is asked to film a close-up vanishing trick being performed by Penn. In the background, Teller is moving everything else on stage. The audience sees what is happening, but the videographer, having been

so caught up trying to catch Penn "in the act," fails to notice the changes Teller has made even once he turns around. In a way, this trick is similar to the knife-throwing trick, where only one spectator is actually fooled. But rather than using a blindfold to prevent the spectator from seeing what is happening, the Cowboy trick uses the brain's tendency to misperception. Because the audience member believes that they are in control of their own perception, the trick is even more successful (Lehrer, "Magic and the Brain").

By focusing tricks on audience perception rather than on technical tools, Penn and Teller must grapple with the willing suspension of disbelief. Tricks that rely on tricking the brain are the most basic in magic, and those with the longest history. Movements too fast for the eye to track, distraction that takes advantage of how attention works, and illusions that play with our poor dimensional perception are at the heart of almost all magic tricks. But they're even more amazing when we are aware we're being tricked but are still fooled. This is why Penn and Teller reveal how magical deception works. If spectators just believe in magic, or accept everything you tell them, then everything is equally amazing and equally dull. The magicians get no credit for their hard work and training. Without skepticism, magic shows are just Santa Clause for adults. Faith ruins the fun. Penn says, "In magic, it is not magic unless you have the skepticism underneath it. If you give us the willing suspension of disbelief, we can't work" (StarTalk).

Teller's work with the Institute resulted in not only new tricks for the duo, but in a book, written with neuroscientists Susana Martinez-Conde and Stephen L. Macknik, called *Sleights of Mind: What the Neuroscience of Magic Reveals about our Everyday Deceptions*. Martinez-Conde notes that magic works with the brain differently from other forms of entertainment. It works because of the most basic building blocks of consciousness: "We are constantly trying to find order, and if there is no order we impose our own order and we call it reality" (StarTalk). Penn and Teller are using the Institute's discoveries to develop new tricks. Their hope is to once again change the relationship between magicians and spectators. According to Jonah Lehrer, who wrote an account of Teller's work at the Institute: "Teller has spent enough time with researchers to think they might be the key to an entirely new category of stage magic—that the quirks and flaws of perception uncovered in the lab can be commercialized, essentially, into illusions for an ever more sophisticated audience" ("Magic and the Brain"). That sophistication has led to widespread knowledge of heritage magic tricks among spectators, and a self-assurance regarding their inability to be fooled. That leaves them open to new forms of manipulation both on and off the stage. The connection to everyday life is of paramount importance to Penn and Teller. Their goal is to induce skepticism in their spectators, who will carry that into the world where they encounter con men on a regular basis. There are many people trying to take advantage of our predisposition toward narrative, our change blindness, and our logical fallacies. By exposing these weaknesses in heritage magic tricks, Penn and Teller hope to strengthen our skepticism and draw a comparison between the performance of magic and the performance of persuasion.

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