

# What do Audiences *Really* Think?

By Joshua Jay

As magicians, we deceive our audiences. But are we deceiving ourselves? Are there things — big things — that we get wrong about our craft? And more importantly, are there things our audiences can tell us that we aren't asking?

The answers, it turns out, are “yes” and “hell yes.”

“Magic by the Numbers” is a new research study about magic, and I'm proud to be a part of it. The goal of “Magic by the Numbers” is to get into the minds of people who watch magic. Magicians have written plenty about what they propose makes for good magic. But what do audiences *really* look for in a magic effect?

To find out, I collaborated with a major academic institution and an accomplished team of psychologists and scientists. And it all started with a phone call from a stranger.

In September 2014, I received an email from Dr. Lisa Grimm, who asked me to perform magic and speak in her college classroom. Dr. Grimm is a researcher and Professor of Psychology at The College of New Jersey, where she also conducts research on human cognition. She wanted an insider's perspective from a magician. She believes — correctly, I think — that magicians have a lot to offer the field of psychology, and vice versa. It sounded like a fun gig, so I booked it.

I opened with some magic, then spoke to the group. I always use the same talking points for speaking engagements: the basics of misdirection, and why magic is important. I spoke to students about why people love magic and why they are fooled by it. I explained that audiences, as Jerry Andrus put it, come to the wrong conclusions for the right reasons.

But as I spoke, I could feel an existential crisis coming on. I was sharing these thoughts because I believed them, and my beliefs were confirmed by everything I have read or been told by wiser magicians. But where did *they* get their information? Could they be partly or entirely wrong? What if we magicians are the ones making inaccurate assumptions — jumping to conclusions about our audiences?

What matters in a magic trick? Do we understand magic as well as we think we do?

Suddenly, in front of 100 students, I was filled with doubt about the very subject on which I was supposed to be an expert. So I did what any magician would have done: more card tricks.

After the show, I shared my doubts with Dr. Grimm about some of the fundamental “truths” in magic that I had become skeptical about. How much do people care about the secrets? What makes for strong magic? Are people really as fooled as we think they are? I had dozens of questions. While she didn't know the answers, she had a path to finding them: statistics, experimentation, and analysis.

Our collaboration began in January 2015 and continues today. In partnership with Dr. Grimm and The College of New Jersey, we have designed experiments to gather quantitative and qualitative data on the topics of magic, magicians, and deception.

“Magic by the Numbers” uncovered enough information to fill a book. But what exactly did we find?

Some of our findings revisited what we *thought* we had right, like whether women like magic more than men (they do) or what the most commonly thought-of cards are (red Threes). When people close their eyes and think of a magician, what kind of person do they picture?

We also tested things that, until now, magicians have only guessed at. For example, when participants view the exact same clip of an effect, enjoyment is higher when the performer is introduced with accolades — awards, TV credits, high fees, etc. Did you get that? The *same* clip is enjoyed 52 percent more if people *think* they're watching someone great. An ounce of reputation is worth a pound of presentation.

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## Who Did We Study?

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To me, what makes “Magic by the Numbers” particularly helpful is the perspective. There have been numerous recent studies involving magicians, but the perspective (and the intent) has been different. Previous studies on magic have always been conducted by scientists — from the outside looking in. But without a magician’s perspective, I have always found their findings underwhelming.

I am not aware of a single systematic study conducted for the magic community. Until now. Here, we are examining magic with the specific intention of learning how to better deceive and entertain our audiences. It’s an insider’s look inward.

“Magic by the Numbers” is a comprehensive study designed by myself, Dr. Lisa Grimm, and her research team, led by Nick Spanola at The College of New Jersey. The study involved 526 participants: 482 from the United States and 44 from Europe, Latin America, and Asia. The ages ranged from 18 to 80; the average age of the people we tested is 30.8. We were unable to include children in our study, even though young audiences are a particularly important segment of the population. Most participants were paid to complete the survey, making this the only scenario I’m aware of in which magicians paid the audience to watch magic.

My background is in writing, not science, so I initially was concerned that 526 people was not a large enough sample size. However, Dr. Grimm correctly points out that most studies of this nature use fewer than 200 participants.

Here is how the process worked: in conversations with Dr. Grimm, I outlined questions or areas I wanted to test. With her research team — and a big nod to Dr. Grimm’s assistant, Nick Spanola — Dr. Grimm formulated ways to test for answers that eliminated bias. Controls were used when possible, and A/B formats were often used to compare one result to another.

Much of the magic shown to participants was clips of my performances or tricks that we video recorded in a studio. We also used several well-known magic clips from other magicians. We chose clips with a history of high click rates and good reviews, to ensure we showed magic that resonates with the public.

(Note that on the subject of gender and accolades, the sample size was slightly smaller and was tested later in our study.)

We tested the effects of scale and proximity on magic. Do people prefer you to vanish a helicopter on a far-off stage or to vanish a coin right under their noses? (Scale matters more to most people than proximity.) Is it stronger, in the audience’s mind, to vanish, change, or produce something? (Changes test strongest.) What *kind* of trick is least memorable to audiences? (Card magic, sadly.)

Audiences of different backgrounds have different tastes, and we tested for this, too. A person’s gender, age, and even religious background affect how much they like magic, and what kind of magic they like best. We’ll explore the baggage our audiences bring to a magic show, and what we can learn from this.

At the core of our study is the shocking revelation that what people like most and least about magic is *not* what you might expect. In all, we tested for 54 questions I developed with Dr. Grimm and her research team. Some of the answers confirm what magicians have known for years, and in these cases, we now have *evidence* for our claims. But in an alarming number of cases, what we’ve been taught is dead wrong.

I’ll take you through our findings one topic at a time and, wherever possible, I’ll offer some analysis on how we might use this information. These answers are tools for entertaining the public, so a good place to start is by *asking* the public what entertains them.

*Special thanks to the following people, who offered their assistance with the article and the analysis. Simon Aronson, Kent Axell, Eli Bosnick, Rod Doiron, Andi Gladwin, Harrison Greenbaum, Anna Jay, Raj Madhok, Mike Vance, Ken Weber, and Gabriel Zucker. Thanks also to Dr. Lisa Grimm’s research team at The College of New Jersey: Heather Bruett, Jess Cassera, Rachel Dickler, Andrew Edelblum, Danny Gallagher, Erin Largey, Stephanie Mallinas, Alexa Nagasue, Adam Oppenheimer, Kalyani Parwatkar, Christian Sabella, Nick Spanola, and Tom Weiss.*

# How Much Do People Like Magic?

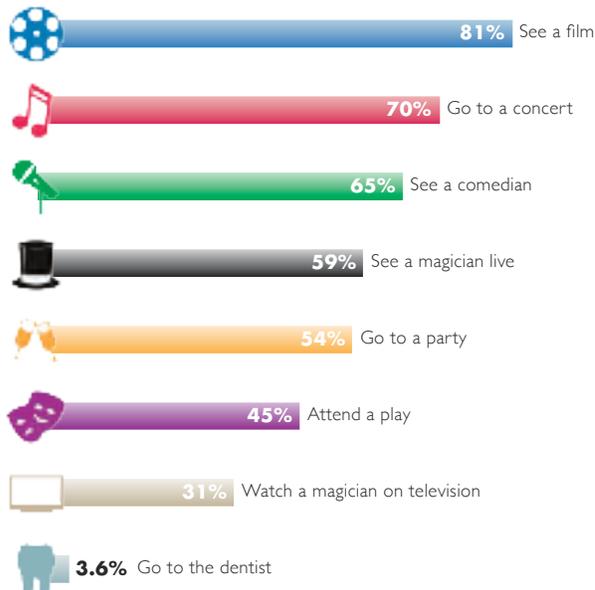
We started out by asking people to rank their interest in a range of entertainment. And much like studies that found that pizza is addictive or that people buy more food when it's cheaper (both real studies), we found exactly what we expected: people would rather see a movie, go to a concert, or enjoy a comedian than see a magician live.

We also wanted to determine whether the *environment* played a role in the enjoyment of magic, so we tested for both seeing a magician live and watching magic on television.

Here are the results, ranking people's enthusiasm for each type of entertainment:

*But wait, you're thinking, this doesn't take into account who is doing the magic. A great performance of magic can change someone's perceptions of magicians forever.*

That's true, but that's not what we're testing. Here, we are only interested in a person's *preconceived* notions of magic. Seeing a great magician can be much more enjoyable than a bad film or a lame party, but we're trying to get into the headspace of people *before* the show starts. You might be the best (or worst) magician on Earth, but that won't change how your audience feels about magic *before*



they see your show. And how someone feels about magicians does affect how that person will enjoy your show. In other words, this data matters to all of us.

Right off the bat, we're confronted with the unwelcome fact that most people would much rather watch a film than see magic. Magic ranks just fourth on this list of preferences, and seventh if the magic is on television. On the bright side, people like magic more than they like parties. This means that people enjoying magic are just as antisocial as

the people who are performing it.

I was also glad to see people would rather watch magic on TV than visit the dentist. Had we found the opposite result, I would have to quit this study, quit magic, and learn how to fill cavities. Thanks, percentages.

Many of us lament the difficulty of performing live when we're competing with over-the-top (read: stooged) online magic. But we can take comfort in the fact that by a significant margin, people would rather watch magic performed live than on a screen.

# Where Are People Seeing Magic?

If it's not live magic people are watching, where are people viewing their magic? Unsurprisingly, it's the Internet. Justin Flom, Lu Chen, and Rick Lax have garnered tens of millions of hits with viral magic tricks that get bounced around the world; even my grandma forwarded me the clip of Dan Zaleski doing magic for an orangutan. According to *iTricks.com*, this was the most viewed magician clip in 2015, with fifteen million views and counting. Many of us have performed for thousands or even hundreds of thousands of people, but you would have reached more humans if you uploaded a performance for just one ape.

How does magic rank in terms of watching clips on YouTube?

First, we analyzed the kinds of videos that get the most views, and we determined that pranks, technological marvels (robots, car crashes, fast planes, etc.), and animal videos fared the best. So we

asked whether people would rather watch a supermarket prank, a magic levitation, a record-setting fast car, or rare footage of a snow leopard.

We didn't ask them about porn, mostly because we knew it would win singlehandedly. (You decide whether or not the pun was intended.)

These results are encouraging. Magic beats everything except the prank video, and it's a very close second. This does *not* mean that most people enjoy humor more than magic, but merely that most people *think* they would enjoy humor more than magic. More testing is required, and it's something I would very much like to explore.

**Analysis: Magic fares well in online viewing, but not as well as the promise of something funny.**

# What Do People Love (and Hate) ?

We now come to the centerpiece of the study, the part that I was most curious about before the study and most surprised about afterward. *What do you like best about magic shows?* And the dreaded she's-just-not-that-into-you follow-up, *What do you like least about magic shows?*

This was the most challenging data to analyze because it wasn't a multiple-choice question; instead, it's an open response. We wanted each participant to speak freely and without limitation. We didn't want them to choose from a list of five options or emotions, but rather to let them unload their thoughts to us without constraint.

We wanted to know if most people associated positive or negative emotions with watching live magic. The result was overwhelmingly positive. Most people approach live magic with a positive mindset and mostly positive past experiences. So far, so good. Better still, when we asked people what they like least about magic, the most common answer was simply, "Nothing."

What people enjoy most about magic shows was a variety of the things we would expect: seventeen percent just wanted to be "amazed," and fourteen percent similarly liked the mystery of magic best. Twelve percent liked not knowing how the effects were done, and ten percent liked *trying* to figure out how the effects were done. (There is a subtle but import-

ant distinction between enjoying *not* knowing and enjoying the thrill of "solving" a magic trick, which is the focus of Dr. Grimm's current research.) Showmanship was what six percent enjoyed most, and six percent named "skill" as their favorite aspect.

But none of these important qualities was their most popular aspect of a magic show. Any idea what is?

*Surprise!* Twenty-five percent of people, in their own words, like the element of surprise best. People of all backgrounds, genders, and ages valued surprise more than they valued being amazed.

This revelation has caused me to reevaluate my magic. It made me reflect on the tricks I do in terms of where and how often I offer my audiences genuine surprise. The answer, for most of us, is not enough.

I predicted people would be drawn to danger or large props or comedy. I thought, to a lesser extent, people loved visual effects and the use of borrowed objects, but even when presented with these ideas, people gravitated more strongly toward surprise, or as many put it, "Not knowing what will happen next."

The idea that audiences *expect* a surprise is paradoxical, since surprise is the one emotion that must, by definition, be unexpected. Much like viewers go to scary movies expecting to be shocked, we have found, conclusively, that a majority of people watching magic expect the unexpected. As playwright William Goldman wrote, "You must surprise an audience in an expected way."

How each person defines surprise is slightly different, of course. But people's answers tend to support the idea that a surprise occurs when a plot twists unexpectedly. When you lift the cup, there is a live chick. When you whisk away the handkerchief, a bottle has appeared. You shuffle a pack of cards and then, without warning, throw it into the air — and the chosen card sticks to the ceiling.

With some classics, there is no surprise: think of the Linking Rings or Coins through Table. Amazing? Yes. Surprising? Not so much.

This result yields two findings. First, tricks that inherently lack surprise can generally be improved by adding something unexpected. Second — and perhaps most importantly — tricks that audiences have seen so many times that they are *no longer* surprising should be avoided. The Zombie Ball and Sawing a Lady in Half used to be surprising to the audiences that first witnessed them, but as these routines descend into cliché, they lose the element of surprise that our audiences crave so much.

The study didn't test whether any effect is strong or weak, and I don't think we should conclude that a magician should *only* perform tricks with surprise. But if your show consists of Torn & Restored Newspaper, the Zombie Ball, and Sawing a Lady in Half, you are depriving your audience of what they want most: something they didn't see coming.

Some performers deal with this by turning these clichés on their head, finding ways to surprise us within the context of what we've come to expect. For example, in Penn & Teller's version of Sawing a Lady in Half, they attempt to explain the method many already suspect, and end by inadvertently sawing through the woman's "actual" midsection, ending with blood and guts scattered around the stage. The ending certainly comes as a surprise.

Now the bad news. What people dislike about magic shows is equally unexpected and almost unanimous in our study. *People dislike when magicians do the same tricks.* They used phrases like "cliché," "repetitive," and "old tricks."

I was *convinced* that what people would dislike about magic shows was the magician. I figured most people would find magicians unfunny and unlikeable (and some did), or that they would find most magic presentations dorky and outdated, even cheesy (you know who you are, fedora-and-suspenders guy). But given the opportunity, few people expressed these sorts of things. Thirty-four percent (which was the most popular response) were concerned about the repetitive nature of a magician's material.

This casts a shadow over a sacred tenet of magic: "Do the classics." "The classics are classics for a reason," and "you can't go

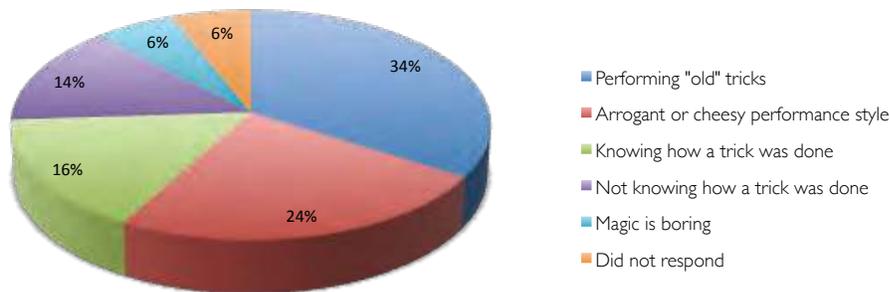
<b>36%</b>	<b>32.5%</b>
Supermarket Prank	Levitation Video
<b>12%</b>	<b>18.1%</b>
Record-Setting Automotive	Snow Leopard
1.4% No Response	

wrong with the classics” — as it turns out, maybe you *can* go wrong with the classics.

That doesn't mean everyone on Earth hates the Linking Rings. There may be people who love Linking Rings and will seek out any performance of it. (And if you find that person attractive and you're into that kind of thing, marry her. Or him.) There will always be exceptions, and you might even be the exception. The key here is to keep in mind that this data suggests what a majority feels about various issues in magic, not how we think they *should* feel.

We can also make a tentative connection between what people like best and least about magic. Most people like surprise best and they dislike repetition most. By adding more surprises into our work, we automatically minimize what sixteen percent of people said they detest most about magic: knowing what happens next.

The undeniable truth revealed here is that most people dislike the idea of seeing magic effects they think they have already seen.



The data suggests that we should perform material unknown to our audiences, or find ways to frame classic material in a new way.

“Be original” is an obvious point, but one we can, for the first time, back up with empirical data.

## Can I Get A Volunteer?

Do people love participating in magic shows? Or do they despise being put on the spot? I was curious about this because a better understanding of a spectator's true feelings about participation could change the way we look at choosing and using volunteers.

The answer, as you might expect, is all over the place. But the trend is clear: 67 percent were very excited about assisting and 16 percent were mortified by the idea. (Seventeen percent were indifferent.) The more people have seen magic, the more likely they are to want to help. Incidentally, people who identify as religious are more likely to want to help. They are also more likely to enjoy your material and to believe that what you are doing is real.

Not everyone wants to help us, but there are plenty of those who do. The moral of this story? When looking for volunteers, just ask.

This is the next question we gave to participants: *Imagine a magician approaches you right now and offers to show you a trick. What would you rather see: a card trick, a coin trick, a large-scale illusion, or mindreading?*

Mentalists rejoice — mindreading was the most popular choice by far. Fifty percent of everyone surveyed wanted to see mentalism over cards, coins, or illusions. Illusions were the second, cards third and, sadly, just three percent of the public preferred coin magic.

No matter what response people selected, they were then asked whether they would prefer to *observe* the trick or to be a *participant*. The goal here is to find out not only what kind of magic people prefer, but also whether certain genres elicit different desires in terms of participation.

The news gets better for mentalists. People who like mindreading also overwhelmingly enjoy participating. Of those who prefer to watch mentalism, *twice* as many wanted to participate than observe. Contrast this with card magic. Of those who love card magic, just 27 percent wanted to help, while 73 percent preferred to watch. In fact, with all other genres of magic, people preferred to observe rather than help. The only genre people actively wanted to be involved with is mindreading.

Why is this? The data doesn't point to any definitive answers. My guess is that mindreading is the only subgenre in which the participant's experience is radically different from observer's experience. Watching someone's mind being read sounds far less enticing than having *your* mind read.

What kind of people enjoy mindreading most? They are people who are *least* interested in watching magic on television and who are *least* impressed with big props. Instead, people who prefer mindreading (and volunteering) prefer proximity. They want to be close, and they want to experience it for themselves.

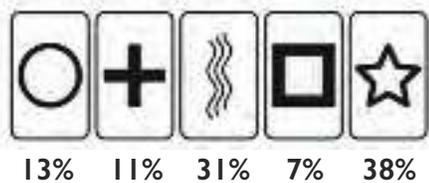
Confidence plays a role, as well. People who identified themselves as “self-confident” were eleven percent more likely to want to help, and self-confidence is associated with a higher enjoyment of magic in general.

If you wish to entice more people to volunteer, you might consider asking for assistance with a feat of mindreading, or arrange your show so that the participation is focused on the subject of mentalism.

## Think of a...

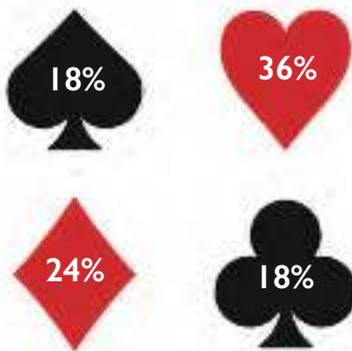
The next section will be of particular interest to mentalists and close-up performers. We asked people to imagine things: favorite food, any number, any symbol, any playing card, any color. The images and choices were randomized to eliminate as much bias as possible, and in many cases participants were invited to write in their answers.

Of the five ESP symbols (Circle, Plus, Wavy Lines, Square, Star), 37.6 percent chose the Star, and 31.2 percent chose Wavy Lines. (Circle was the next most popular, with 12.5 percent, followed by Plus with 10.5 percent, and lastly Square, which was chosen by just 6.5 percent of the people.)



Now to playing cards, which are the results in this section I looked forward to the most. If we can gain some simple insight into which cards most people think of, we can put this secret advantage to use in a number of useful ways.

When asked to think of *any* playing card, these are the results: Hearts came in first (36 percent), followed by Diamonds (24 percent), and Clubs and Spades (each at 18 percent). The most commonly thought-of card was the Queen of Hearts, followed by Ace of Spades, Seven of Hearts, and Two Hearts.



Interesting, I think, but not that useful. But if we change a tiny aspect of how we ask the question, we can drastically affect the results and learn something useful.

We conducted an A/B test in which half

the group was asked a control question (“Please think of any card”), and the other half was asked the same question in a slightly different way (“Please think of any card, but not something obvious, like the Ace of Spades or the Queen of Hearts”).

This added element, asking them *not* to think of “something obvious like the Ace or the Queen,” made the data much more predictable. When you add this phrasing, people thought of a red card nearly seventy percent of the time. The list of thought-of cards also changed:

Two of Diamonds  
 Three of Diamonds  
 Three of Clubs  
 Three of Hearts  
 Four of Diamonds  
 Seven of Diamonds  
 Seven of Hearts

This is called semantic framing. The concept is that different words give us different perceptions of events. In this case, if you say to a spectator “*Think of any card, but not something obvious like the Ace of Spades or the Queen of Hearts,*” you can follow it up by making several statements with relative confidence:

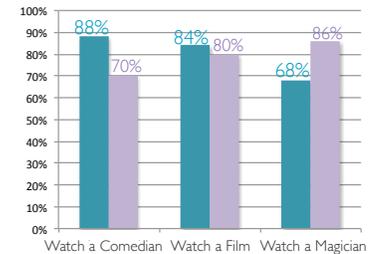
“*You’re thinking of a red card. And it’s a spot card. A Diamond. The Two of Diamonds.*” As before, I don’t suggest you rely on these numbers as an effect, but it’s valuable to know how most people will think before even *they* know.

Here’s another example of semantic framing. When asked to think of any color, it’s very hard to discern in advance what people are going to think of. But if you say, “*Think of any color, such as green or yellow,*” one color emerges as a clear favorite. Blue was chosen 33 percent of the time. When blue wasn’t chosen, purple and red were the next likely favorites. By giving the examples of green and yellow, you effectively eliminate those choices, and at the same time cause people to choose a color that contrasts greatly with your examples. Similarly, if you ask someone *not* to think of an obvious card like the Ace of Spades or the Queen of Hearts, note that this phrasing effectively eliminates *any* Ace or Queen from being chosen, and it pushes people toward selecting a low-value Diamond. People are sensitive to our phrasing; they react to it, and in ways that they might not be aware of or fully understand.

## Gender

Because we have demographic information on every participant, we are able to revisit our data and test for things like religiosity, age, and gender.

The most useful demographic discovery is that, in general, women enjoy magic more than men.



Part of understanding a person’s beliefs in magic is understanding a person’s beliefs outside of magic. We asked all participants a series of fundamental questions about belief.

*24 percent of men and 41 percent of women identify themselves as “religious.”*

*44 percent of men and 72 percent of women report believing in God.*

Is it possible for humans to “read” the minds of other humans? 12 percent of men surveyed believe mindreading is possible, while 10.4 percent of women surveyed believe it is possible.

Can people communicate with the dead? Only 12 percent of men surveyed believe so, but 34.3 percent of women surveyed believe communication with the dead is possible.

Is it possible for humans to do “real” magic? 12 percent of men surveyed believe real magic is possible, and 14.2 percent of women surveyed believe it.

# How Do They Really Feel?

We already explored people's existing feelings about magic, then took a brief detour into what cards and colors and symbols people are most likely to think of. So far, our study has been concerned with preconceived notions of magic. Now we dive into what aspects of magic people enjoy most *after* they see it. What do they remember most? What do they forget? Are they as fooled as we think they are?

The first experiment we did concerned the framing of magic performances. It was another A/B test; we divided the population into two testing groups. Both groups were shown the same video: Shawn Farquhar's FISM-winning routine, "Shape of My Heart." The first group was simply asked to watch the video. They weren't told anything specific about Shawn or his effect. The second group was told that they were about to watch the World Champion in Sleight-of-Hand Magic perform the routine that helped him win magic's highest honor. Everyone from each group was then asked to rate their enjoyment of the clip, and to talk about their experiences.

Were people more amazed when they thought the magician was a world champion? Do accolades matter?

Yes and no. Shockingly, there was very little difference in how much people *enjoyed* Shawn's magic. Those who knew his background enjoyed it about the same as those who didn't. But that's not the full story. Those who knew his accolades attributed him more credit and skill than those who didn't. People were nearly *four times more likely* to click to see more magic from Shawn if they were presented with his credentials. The accolades led to a deeper appreciation.

We did a similar A/B experiment with Benjamin Earl's fantastic *Fool Us* video. In the video, he locates four Aces from a shuffled deck, each in an increasingly impossible way. Group A was shown the video without any introduction. Group B read this before watching: "The following magic trick is performed by magician Ben Earl, one of the finest sleight-of-hand artists in the world. He is one of only four magicians with the skill required to perform this effect perfectly."

With Shawn Farquhar's video, we were testing whether peer selection affected people's enjoyment. In other words, if *other people* think this guy is good, he must be good.

With Ben Earl's video, we tested for skill. If people perceive someone as having virtuosic skill, would they appreciate and enjoy the show more?

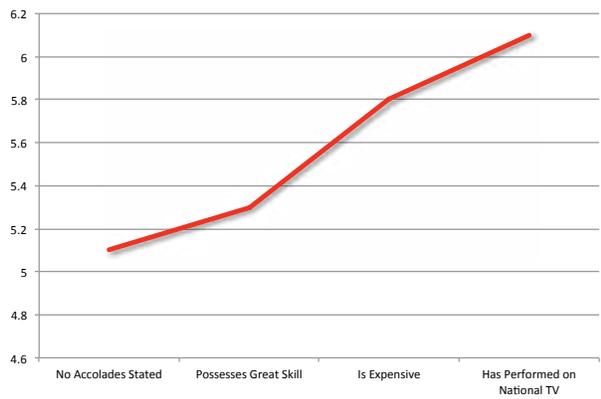
In the case of Ben Earl's video, participants *did* enjoy the clip more if they were told in advance that what he was doing was extremely difficult. They attributed to Ben more skill, surprise, complexity, and enjoyment when they perceived his talent to be world class. Eighty-five percent of those who thought what they were seeing was difficult wanted to see Ben perform more material. Only 33 percent of those who were told nothing about Ben's skill wanted to see more material.

Certain accolades matter more than others, it turns out. What is more impressive to an audience: great skill, performing on television, winning awards, performing for celebrities, or being expensive?

We tested for different accolades in each clip. Audiences are most impressed by television performances. The other accolades are appreciated about the same. However, magicians introduced with some kind of accolade (anything at all impressive) were more deeply appreciated.

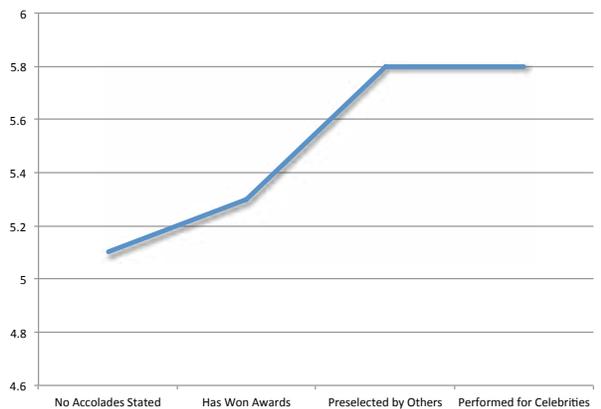
The takeaway here is that introductions matter. As a convention organizer, I've introduced many magicians. When I ask how they would like to be introduced, the majority of performers say things like, "Whatever you want," or "Just keep it short," or "It doesn't matter." If you care about how deeply your audience appreciates you, it does matter.

Quick caveat: This isn't a license to invent credits, just encouragement to use the ones you've already earned. Sure, you were in the audience for a taping of *The Tonight Show*. That doesn't mean you were on *The Tonight Show*.



## Ben Earl

- Has Performed on National TV: 6.1
- Is Expensive: 5.8
- Possesses Great Skill: 5.3
- No Accolades: 5.1



## Shawn Farquhar

- Performed for Celebrities: 5.8
- Preselected by Others: 5.8
- Has Won Awards: 5.3
- No Accolades: 5.1

# Money Magic

The way magicians and tricks are framed matters, as we have just explored with accolades and introductions. Next, we wanted to explore the perceived “value” of a magical experience.

To test this, we divided our participants into four groups. The first group was told to imagine that they encountered a magician on a boardwalk, who performed a trick (which was then shown via video). The other three groups were told the same thing, but they were asked to imagine that they *paid* to watch the magician. Some were told to imagine the fee was five dollars, others twenty dollars, and others fifty

dollars. How did “paying” to watch magic affect the enjoyment?

There are two notable results here. The overarching conclusion is that people most enjoyed the magic when it was free. No shock there. They were most impressed, attributed the greatest complexity, and were most surprised by the (same) trick when they didn’t have to pay for it.

But it’s also worth noting that of those who “paid” to watch magic, paying more means enjoying more. Those who paid twenty or fifty dollars enjoyed the *same* trick more than those who paid only five dollars. The perception of value is a powerful illusion.

# Forgettable Card Tricks

Card tricks are my life. I make my living with card tricks. And when I’m not performing card tricks, there is nothing I would rather be doing than working on a new one. Imagine my disappointment, then, when our study showed that card tricks are the *least* memorable genre of magic across all ages and nationalities. It boils down to this heartbreaker of a statement: If you want your audience to forget the specifics of what you do in your show, you should do card tricks.

But the news isn’t all bad. People often *liked* the card magic they saw. They simply couldn’t describe it in any detail. More on this in a minute.

To test an audience’s recall on magic, we asked people to describe magic effects they have seen and, separately, their favorite magic trick. This data is useful because it allows us to discern the tricks that stay with people, even years after they have seen them. We can see the qualities of tricks that are remembered best, and whether we can learn anything about how to make our own magic more memorable. And, if people haven’t seen much magic before, we can see how they remember tricks we showed them earlier in the survey. A person’s memory of a performance is, arguably, more important than their feelings during a magic show. Magic shows last an hour. Memories are forever.

People universally remember effects that are easy to describe and understand. “He made a girl float.” “He told me the day I was born.” “He made a tiger appear from a box.” Internationally, people remembered larger illusions best, which could be attributed to

more stage magic trends abroad. US-based participants often referred to effects they had seen on television from David Blaine, *America’s Got Talent*, and *Penn & Teller: Fool Us*. People also enjoyed tricks with animals.

Card tricks were frequently named but almost *never* described in any detail. This was so alarming to us that we added a question to the experiment, asking participants to specifically describe a card effect they had seen. Even when prompted, only 27 percent of participants could describe *any* card trick with specificity. The most common response was to simply list “tricks with cards.”

What does this mean? It means that to most people, card tricks are, categorically speaking, hard to tell apart. I dislike country music, so when I hear anything with a honky-tonk banjo riff — regardless of who is singing or tempo or subject — the only thing I hear is “country music.” For most participants, any trick with a pack of cards is just a card trick. And with a reasonable time lapse, most people will be unable to recall how many cards were picked, how you found the card, whether you separated the cards by color, or whether you dealt yourself four Aces.

There is an exciting exception to this rule. Most people’s recall for card tricks improved markedly when *another prop or element was involved*. People recalled card effects best when there was another prop to anchor the memory: “He threw the cards into the air and one stuck to the *ceiling*.” “A card I picked ended up in my *pocket*.” “He cut

open a *lemon* and took out a playing card.”

When another element is involved, such as writing on a card and then changing the writing, the recall of the trick’s plot improved tremendously. We surmise that when people no longer categorize an effect as a “card trick,” they can more easily differentiate it in their minds. Also, plots involving cards and other objects are often easy to describe in one sentence and are often more memorable than card-only effects. There appears to be a weird but important distinction for people between “card tricks” and “tricks with cards.”

This conclusion has been extremely hard for me to accept, because of my love for card magic and my dedication to the genre. But facts are facts, and if I’m honest with myself,

Card tricks were frequently named but almost *never* described in any detail.

my own experiences mirror the data we found: people *do* find the intricate plots of card magic hard to recall, and tricks that use cards and other objects are usually stronger than pure card magic.

But if you love cards as I do, take solace in this important revelation. When asked to name their favorite trick, about twenty percent of people *did* mention card magic, despite being unable to describe it. Which prompts the unanswerable question, “If they enjoy what you do, does it matter if they remember specifics?”

# How Did They Do It?

For centuries, magicians have worried about audiences finding out how their tricks are done. It turns out that audiences don't care nearly as much as we think they do.

We showed our group a video of an appearing helicopter illusion (and controlled the test with other similar effects). After the trick ended, we gave everyone a choice. Would they rather watch how the trick was done or watch a performance of another trick? We are giving people a choice to *watch* magic or to scratch the itch and learn how magic works.

Sixty percent preferred to watch another amazing magic trick; the other forty percent were more curious to learn how the trick was done. To our delight, the people we tested were more interested in *watching* mysteries than *solving* mysteries.

We also need to rethink what it means when someone wants to know how a trick is done. We often take this as a negative

quality in a spectator. We even tend to blame ourselves if a spectator seems frustrated when they can't figure out how a trick is done. We've all heard the phrase "It's not fun to be fooled," and some of us believe this. But when asked what people love *most* about magic, nineteen percent of people cite being fooled as a positive experience. (Ten percent of these people are distinguished as loving "being fooled," and nine percent most enjoy the act of trying to solve tricks.) Trying to figure out a magician's tricks is, for many, their favorite part of the whole experience.

We can unpack this concept further. In another experiment, we showed participants clips of three different levitation videos: levitating a dollar, levitating a card, and levitating a girl. The dollar levitation was filmed extremely close to the performer. The card video would be considered parlor magic, and the floating lady was seen from a distance, as it would be if you watched the illusion in

and complexity to the floating lady illusion (finally, some good news for the box pushers). Scale, in this case, does matter.

People also opted to rewatch the stage illusion more and they thought they knew how it worked less. The illusion fooled them more completely. Forty-three percent of the people who watched the card levitation had a guess as to how it was done (and nearly all of them guessed correctly: thread).

With age, people become less curious about how magic works. Across all effects tested, older people were less curious about how effects were done. The average sixty-year-old in our survey was most likely to be fooled and least likely to offer a solution. The younger the person, the more likely they are to *think* they know how something is done.

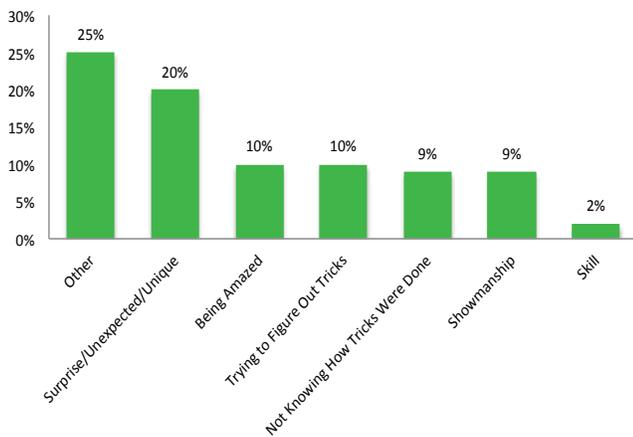
There are two important conclusions to be drawn here, and both of them may affect how we think about our magic. The first, obvious point is this: repeatedly during the experiment, spectators nailed magicians on methods involving invisible thread. If you use thread for audiences, be careful you aren't fooling yourself. The evidence doesn't preclude using thread entirely, but if you're doing a floating bill effect, be aware that almost half the spectators believe they know how you're doing it.

The most interesting conclusion we can draw from this data is that people want to know how something is done when they already have a suspicion. When people enjoyed an effect, they were less likely to guess (or to *want* to guess) how it was done. When they had a suspicion about the method, they preferred to guess at the method instead of watching more magic.

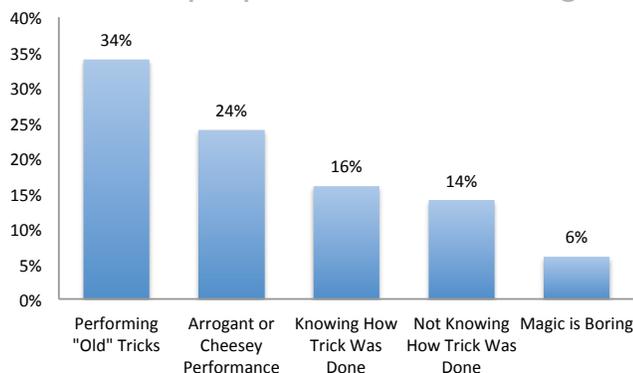
This means that if our effects are soundly constructed and highly entertaining, our audiences will be less concerned with methods. If we are challenging in our presentations, or our tricks have moments that arouse suspicion, people will treat our material like problems to be solved.

By the way, many times in the survey we asked people if they "would like" to watch a video exposing how various tricks are done. Once they decided this, however, you'll be happy to know that they didn't actually get to see how anything was done. We were interested in the data, but not interested in actually revealing methods.

What do people like *most* about magic?



What do people like *least* about magic?



a theater. Afterward, we allowed spectators to guess at the method for each and to rate their enjoyment of each performance. After each trick, spectators were offered the chance to replay the video in full or to take a guess at the method. The order of the videos changed randomly, in case spectators tended to remember what they saw last more favorably.

This experiment answers several important questions: Are people's guesses at the methods accurate? How much do they care about methods? Is bigger better? Or is being close to the magician more important?

Let's explore guesses first. People attributed the most enjoyment, surprise,

## Getting Real

In order to enjoy magic, audiences must suspend disbelief. After all, there is no such thing as magicians doing *real* magic. But even something so fundamental as belief in magicians has never been tested until now. We were interested in finding out how far people would stretch their disbelief, and whether there are magicians, tricks, or circumstances that cause people to believe that what they are seeing is real.

To begin with, we asked if they think it is possible for a human to memorize an entire deck of cards. Seventy-three percent of people thought this might be possible, and the older the subject, the more they thought it would be possible.

Then we asked if people think it is possible for humans to read the minds of others: sixteen percent absolutely did, and forty percent think it *might* be possible. Nearly 40 percent think it might be possible to do *real* magic, and 48 percent believe it may be possible to talk to the dead. Thirty-five percent



of people also believe it might be possible to move objects with the mind.

This revelation shows a shocking open-mindedness about the possibilities for authentic magic, especially given the complete lack of evidence to support any of it. But certain performers — Uri Geller, Derren Brown, and David Blaine come to mind — have a performing style that is so realistic that many people do believe that what they are doing is real.

Whether it's talking to the dead or moving objects with the mind, just short of *half* the participants believe these things might be possible. Audience demographics differ wildly depending on where they are, who you are, and what you're doing. But this data suggests that in virtually every show you do, some of your audience believes that what you are doing is real.

Is it possible to pinpoint *who* is most likely to believe? A self-identified belief in a God is positively correlated to belief in talking to the dead, mindreading, moving objects with the mind, and a belief in real magic. But since beliefs are not something we wear on our faces, this aspect isn't particularly helpful in choosing volunteers or audience members.

This data could be useful to those who believe it's ethically wrong to claim supernatural powers in a magic show, and could equally be used for those wishing to make their performances appear more like the real thing.

## Looking Ahead

I shared our study with a valued friend, mostly because I just couldn't believe some of the results. He couldn't either, which is why he initially rejected the very notion of approaching magic with laboratory coats and clipboards.

"Magic is art, not science," he said. "If you do market research on what tricks are most popular, you're making magic for your audience, not art."

I agree. If everyone only performed magic that audiences identified with, our shows would all look the same: dreadfully safe and broad, and risking nothing in terms of experimentation. There would be no element of surprise that the audience so clearly craves. I believe that the very best magicians explore new horizons, and show audiences what they never expected to enjoy or think about.

But anyone who entirely rejects feedback from their audience is missing an amazing opportunity. Knowing what our audiences think about magic is important. Understanding *how* our audience thinks about magic is invaluable to anyone wishing to improve. This study is no different from a thumb tip or a card force or a comment from someone after your show. They are tools, and the best magicians use every tool available to them.

Other magician colleagues rejected these results because they clearly conflicted with something in their own experience. "I do only card magic, and I get amazing reactions," someone told me. "My show has been filled with the classics for longer than you've been alive and I'm not changing a thing," another one wrote. "People hate being fooled. We've known that for years," said another.

To these people, my only response is this: your audiences disagree with you.

Even if your only takeaway from the study is to use an introduction to your show, your show can improve. If your only take-away is to do more card magic *with* other props, your show can improve. If you focus on using spectators who *want* to come onstage with you, your show can improve. Small, measurable improvements. And beyond these concepts, there are dozens of other tools for your toolbox, if you are honest with yourself and your magic.

In an old musicians' parable, an orchestra is about to begin a performance of Beethoven's "Fifth Symphony," arguably the most famous piece of classical music. Backstage, the conductor says, "I know all of you have played this piece innumerable times, and the audience has heard it many times. But tonight, I want you to play for two distinguished guests. The first is a little boy who is hearing Beethoven's 'Fifth' for the first time. The second is an old man, who will be hearing it for the last time."

I think about this sometimes before a show, for motivation. But our study confirms that it's also quite literally true. Of the 526 people who participated in our study, 28 percent have never seen a magician live. This is shocking to me. For 49 percent of our participants, more than a year has passed since they have seen a magician live, and only 23 percent have seen a magician within the last year.

When you look out into the audience at your next show, remember that for many of them, you are the *first* magician they have ever seen. **M**