

## **“Balderdash!” Or, Learning Perception from Deception: Challenging Antecedent Knowledge with Uptake Writing**

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What follows is an account of David Hansen's journey from being an overly trusting college student to being a critical thinker. Through his research on the genre of “deception,” Hansen learned to examine his antecedent knowledge and how it was liable to give him a false sense of things. Hansen details the research methods and tools he adopted to chart his learning and uptake in order to better prepare himself to spot moonwalking bears (Figure 1).



Figure 1: Aforementioned moonwalking bear.

## First, A Few Definitions

Before we get to the journey, let me define a few things first. When I talk about **uptake**, I mean “the process we go through to take up a new idea and think about it until it makes sense (if we get that far with it—sometimes we don’t!). Our uptakes are highly individual because we all have different past experiences that impact the way we see the world” (Sheets 136).

For the purposes of this article, you should think of **antecedent knowledge** as the information and experiences we all acquire over time that we use to assess new situations and ideas. It refers to what we know and, sadly, what we *think* we know. There’s a high probability of misinformation being jumbled in there, just waiting to jump out and smack you in the face. Finally, to make the best of our education, we need a way to map out our learning. For that I used an uptake journal (Figure 2).



Figure 2: My uptake journal.

We should deal with the fact that our minds are sometimes mush. To help with this we need to set down our thinking about . . . well, our thinking. An **uptake journal** is a place to write down not only what we learn, but how it’s affecting us, and gauge what’s changed over time. Writing acts like an external hard drive for your memory. I like to write a few sentences, maybe even a paragraph, about what I’ve observed and what it means to me. Down the road I’ll even respond to what I’d previously written. In other words, I keep a running dialogue with my younger self. It’s a way to look back and see how far I’ve come as a researcher. You have all that? Good. Let me start with where my learning began.

## Where My Learning Began

*I know everything.* I have gone through twelve years of public school, four years of undergraduate learning, and a combined six years of graduate work. *Of course, I know everything.* I would have discovered any major gaps in my learning by now. Oh sure, I may not know how to build an airplane engine or how to figure out quantum mechanics, but I *know* that I *don't* know that, so it all evens out. If it's important, I have been exposed to the concept already.

Right?

*(My future-self whispers in my ear.)*

What?

*(Whisper.)*

What do you mean that I have no idea how my mind actually processes information?

*(Whisper.)*

What do you mean that people who know this can use it against me?

*(Whisper.)*

And no, while you're at it, I didn't see a moonwalking bear!

While I obviously never had this conversation (because I don't have a time machine), if I'm being honest, this sentiment is right about on the mark. Years ago, I felt that I already knew what was important, and I honestly believed that somewhere along the long and twisting path of education someone would have filled me in on everything that mattered. After all, what is education for if not to help shape the minds of generations of good citizens? I didn't realize just how bad my self-assessment tools were and how blind I was to the very simple way my brain synthesized information, which affects what information I take in and retain. I didn't know just how lazy the human mind naturally is and how it leaves one vulnerable. I thought I was ready for *anything*. In short, I didn't know where I was coming from and so I never could see where I was going.

## The Journey Begins with B.S.! Or, How the Genre of Deception Lead Me to Illumination

I was just about to complete my graduate program in English/literature and prove to the world just how intelligent I was. I had taken all the classes,

completed all the tests, and the only thing left was to revise my thesis paper. Days before the big event, my roommate Matt came in and asked if I had ever seen the Penn and Teller Showtime TV series, *B.S.!* (Figure 3). I knew they were some sort of comedy magicians but not much more. We went ahead and watched the first episode, “Talking to the Dead.” And then we watched the second episode. Then the third. Maybe the fourth? Several hours later, the series was over and I was furious. Not angry. Furious. Not at accidentally watching an entire season in one go, but at seeing how people were being tricked by con men into giving away their money and their dignity by falling for tricks that bypass our reasoning. I was furious because I hated seeing people get duped by these tricks. But I was also furious because I’d watched the types of shows Penn and Teller were debunking and, if I’m being perfectly honest, I’d fallen for them too.



Figure 3: Season 1 of *B.S.!*

In the episode titled “Talking to the Dead,” psychics would tell grieving people that the dearly departed were right there and that they still loved them. On the video, it actually looked as if the psychics were getting information about the dearly departed from the astral plane. They seemed to know about the person’s personality and details about their past. How could this be a trick? Actually, pretty easily. The psychics were using a method called “cold reading,” which involves reading a subject’s nonverbal communications. The psychic would ask their subject a series of vague questions and watched how they responded. When the psychics made a guess and the subject responded with positive facial expressions or body language, the psychic would know they’re on the right track and push on. If the person doesn’t respond, or

shows a negative attitude, the psychic will know they’re wrong and find a way to backtrack and try a new route.

This works because of something the famous 19<sup>th</sup> century showman P. T. Barnum noticed with people who came to see his Fiji Mermaid or his circus: “People want to be fooled.” We all need one thing or another to be true; it’s a compulsion. We’ll ignore any amount of mistakes a psychic makes and overexaggerate the amount of correct assumptions. This is called the “halo” and “horns” effect in interpersonal communications. Once you believe that you like or hate something, it takes a lot more energy to break that belief than it does to keep it going. In short, these grieving people wanted to speak to their loved ones so much that their critical thinking was shut down and they were thrown under the bus by their own desires.

Did I know any of this? *No*. My antecedent knowledge didn’t have anything stored up that would have helped me understand this. It was too filled with years of people telling me, “This is the right answer. Don’t ask questions, we don’t have time. Just trust me.” I trusted that there was a “right” answer and didn’t bother finding out for myself if that answer was actually right or not. Since I didn’t see what the trick was, it must be information from beyond the grave. I assumed it was all working perfectly, never bothering to ask why I thought the way that I did, *but here was a show proving I was wrong*. The rest of the episodes brought up more examples of my own biased antecedent knowledge, and I began to understand that when I said I had an opinion, what I really had was a *feeling* that I was attempting to justify, that I just had to trust my instincts. If I had nagging doubts that I didn’t really know what I was talking about, I ignored them.

I wanted to see what else I was missing. In an article Teller wrote for the *Smithsonian Journal*, “Teller Reveals His Secrets,” he talks about how magicians use people’s self-assessment techniques and biases against them. I wrote down the 7 points in a notebook I had at the time:

1. Exploit pattern recognition.
2. Make the secret a lot more trouble than the trick seems worth.
3. It’s hard to think critically if you’re laughing.
4. Keep the trickery outside the frame.
5. To fool the mind, combine at least two tricks.
6. Nothing fools you better than the lie you tell yourself.
7. If you are given a choice, you believe you have acted freely.

I just thought this might come in handy sometime down the road. Also, I just started to create a list of genre criteria for “deception.” I kept that information and have built on it year after year. That’s how my journaling began: I just wrote down something that was interesting to me. From there it grew until it became a full record of my uptake.

I had started to record the core aspects of “deception,” and now I needed to find out *why* these things happened and what I could do to stop them.

### From B.S. to PhD: Or, Challenging My Flawed Antecedent Knowledge Led Me to Seek New Information

Teller’s partner, Penn Jillette, actually supplied the information about why my mind made the mistakes it did. At least, he pointed me in the right direction. In his weekly podcast, he talked about a book by Daniel Kahneman called *Thinking, Fast and Slow* (See Figure 4). Kahneman was studying how the brain processes information and how our self-image is made up of what we have decided are our main personality traits. We are who we think we are and any threat to that little groove will be met with sometimes violent resistance . . . and that resistance takes mental energy we physically hate to spend. If something tells us we’re wrong, we will grasp at anything that *sounds plausible* in order to convince ourselves we’re okay and get back to feeling that groove again. Hence the Barnum Effect. More information for my uptake journal!

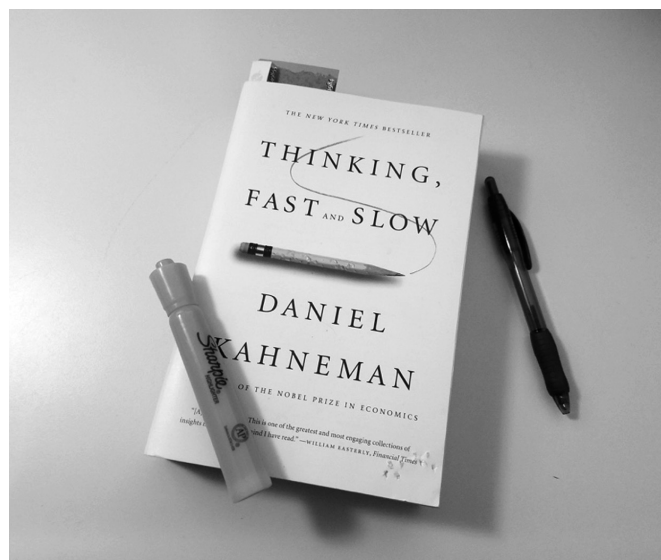


Figure 4: *Thinking, Fast and Slow* by Daniel Kahneman.



Kahneman mentioned a video that showed how a mind can be programmed to fool itself. Two teams of basketball players are passing a ball around and the goal is for the viewer to count the number of passes they make. I watched the video on YouTube and tried the experiment for myself (type in “Awareness Test” on YouTube). Then it asked if we saw the moonwalking bear. *No. There was no moonwalking bear.* I would have known if a bear walked into the video and moonwa. . . . why are they rewinding the video? Why are they starting the video again? *WHERE DID THAT BEAR COME FROM?!*

It’s called Inattention Blindness. This happens when you tell your brain to focus on one thing and ignore everything else, including seeing someone in a bear costume moonwalking through the basketball players. This nasty trick happens because we have two systems for thinking: System 1 and System 2. These are mental constructs that show how we gather information and how we process it, retrieve it, and connect it to previously encountered ideas. In Kahneman’s book I got to see for the first time how these two parts of my thinking work in tandem and how if the mind is asked to work too hard it will stop thinking critically and just go for something quick and easy. (More information for what turned into my uptake journal; more chances to test how well my own antecedent knowledge was holding up.)

### **Pixy Stix Monkey and Jabba the Hutt: Or, How System 1 and System 2 Work for Me**

Basically, System 1 is a monkey on Pixy Stix and Mountain Dew (Figure 5). Our Pixy Stix Monkey will throw information around without much actual thought because it’s hyper and has things to do. System 1 doesn’t actually critically think about the information since it doesn’t have time, and so it goes off its impressions, letting System 2 sort it out later. All in all, System 1 is there to make simple decisions that make getting through the day easier. The heavy lifter of your critical assessment is System 2.

System 2 looks at problems logically, compares and contrasts facts and ideas, and is the muscle of your mind. But, without proper exercise, it’s like Jabba the Hutt. System 2 hates to do work and will often just trust that the System 1 monkey knows



Figure 5: Pixy Stix monkey.

what it is doing. This laziness will have us trust our “feelings” and not worry about checking to see if the information is true or not. Kahneman says in his book, “System 1 is not prone to doubt. It suppresses ambiguity and spontaneously constructs stories that are as coherent as possible. Unless the message is immediately negated, the associations that it invokes will spread as if the message were true.” However, System 2 will eventually do the work and will even crave greater challenges, but not unless it is put on a mental treadmill for a few miles.

### **PhD vs. Scientists and the Media: Or, Just Because You Have a Degree, Doesn't Mean You're Always Right**

After reading *Thinking, Fast and Slow*, I wanted to apply what I learned by looking at how other cons had worked and see if I could spot the *why did this happen* of the manipulation. Did my new and improved antecedent knowledge prepare me for new genre examples? It was time to find out. The Amazing Randi (another famous magician and debunker of psychic claims) and two teenagers were able to fool four scientists charged with investigating psychic phenomena under laboratory conditions.

In 1979, a millionaire named James McDonnell had set up a research program to look into claims of supernatural abilities and had supplied it with half a million dollars for its five-year plan. Two teenagers had been chosen by the program as the subjects of the tests based on their ability to manipulate metal spoons and have them bend with no apparent physical force. These teens had been coached by Randi himself. The plan Randi came up with to prove all humans are prone to the Barnum Effect was named “Project Alpha.” The purpose was to demonstrate how even scientists could be fooled using simple tricks.

Over the five years, the young men got in good with the scientists and were able to convince them to break the rules of the experiments one by one by claiming it would more easily “facilitate” their powers. In the documentary film, *An Honest Liar* (see Figure 6), Randi and his assistants hinted at some of the things they did to accomplish their tricks. By going back to my uptake journal, I could look at what Teller had said, add in what I learned about System 1/System 2, and ultimately put names to the psychological manipulations they were using. Some of my findings were that: 1) they used laughter to engage the halo effect, which allowed them to have the rules of the tests changed to their advantage, 2) they employed The Barnum Effect to play on the scientists’ desire to prove that psychic powers



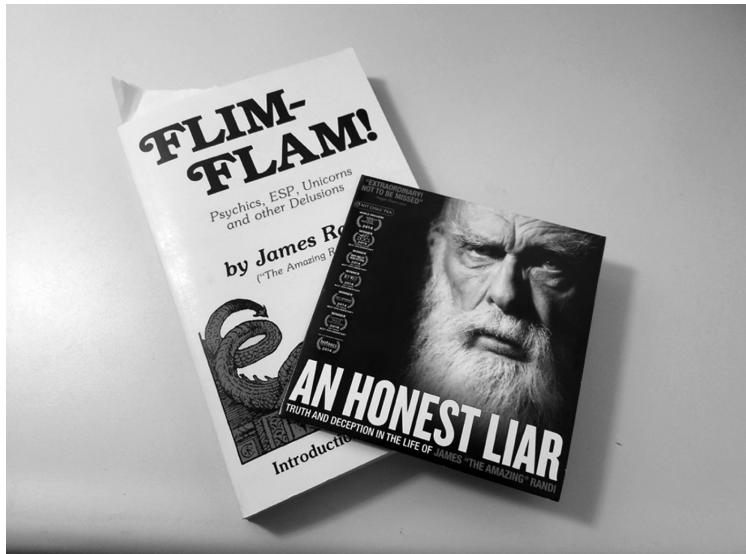


Figure 6: *Flim-Flam* and *An Honest Liar* by James Randi.

exist, 3) they used Inattentional Blindness by focusing the scientists in one place while manipulating their test objects in another. The teenagers fooled scientists just by exploiting their faulty thinking.

### **And *Now* the Answer You Have Been Waiting for: Or, Only You Can Prevent Sloppy Thinking**

Alright, you have been reading this so far, and I'm betting you'd like to know what the overall answer is to fixing your own self-assessment. How do you make sure you are critically thinking and not just doing whatever the Pixy Stix Monkey wants? The answer . . . I don't know. The experts don't have a simple answer either. We're humans and we need automatic systems to get through the days or we'd lose our minds. Knowing about these things is a starting point, and looking at real world examples where screwy logic has taken over can give you something to compare to. But as for a simple fix, no one has found one. It all takes time, practice, and the willingness to change your own thinking pattern. The way that I've dealt with this was to create my uptake journal. It's allowed me to document what I am thinking and explore *why* and *how* I've arrived at my conclusion/opinion/feeling. I also review past entries and make comments on them. It's a way for me to engage with myself about my System 1/System 2 thoughts. It's helped me to embrace my inner researcher and collect information from anywhere and everywhere



Figure 7: My uptake journal materials.

(Figure 7). However, you will find your own methods to engage with yourself and your thought process. And, of course, always keep an eye open for your own moonwalking bears.

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