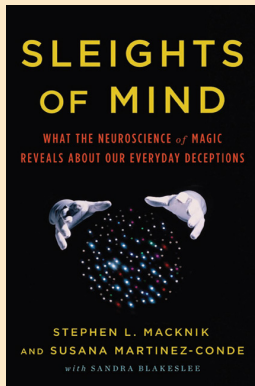


Neuroscience, Magic and the Supermarket

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Attention might be the most important currency in any supermarket, more so even than money. Like money, a shopper has only so much attention to go around, and as with money, we are competing for that limited resource with our competitors. Even when a shopper is looking at a shelf, it turns out that her detailed visual attention is sufficient to process only a small segment of the shelf in detail at any one time. So we are

even competing for a shopper's attention with ourselves!

Of course there are lots of ways to get attention. Simply by being one of the top couple of brands, we get more shelf space, so the odds of being seen rise quite significantly in our favor. Being big also affords sufficient critical mass to create large unified design spaces at the supermarket shelf, which can also grab attention. Knowing how to create visuals that have great signal to noise, and thus pop out from the rest of the surrounding also increases the chance that we can capture attention.

However, that is only scratching the surface, and there is much more to learn. This article shares how the absolute masters of attention, magicians, have learned how to manage this scarce resource, seen through the eyes of neuroscience and psychology. It invites you to think about how their skills might be reapplied in the supermarket, or in TV advertising, digital, or anywhere else where attention is a scarce commodity, and we want a share of it.

Spoiler Alert! The following section describes magic secrets and their brain mechanisms!

“Frames” are windows of space that the magician creates to localize your attention. A frame can be the size of a whole room or a tabletop or no bigger than a business card. “You have no choice but to watch in the frame,” Apollo says.

This is Apollo Robbins, the infamous “gentleman thief” who once pickpocketed ex-president Jimmy Carter’s Secret Service detail, relieving them of their watches, wallets, badges, confidential itinerary and the keys to Carter’s limo. But as soon as we see whom Apollo has plucked randomly from the crowd at the 11th annual meeting of the Association for the Scientific Study of Consciousness, in Las Vegas, we exchange amused glances. This man isn’t a scientist at all, as Apollo assumes, but New York Times science reporter George Johnson.

“I use movement, context and timing to create each frame and control the situation.” Apollo demonstrates by moving very close to George. He grabs George’s hand and pretends to press a coin into it, although all he is really placing there is a sensory afterimage with his thumb. “Squeeze hard,” Apollo instructs. George gazes intently at his hand, now caught within a frame. He squeezes. “Do you have the coin?” Apollo teases. George nods. He thinks so. “Open your hand,” Apollo says. The palm is empty. “Look on your shoulder,” Apollo suggests. George glances to his shoulder where a coin is resting.

Apollo explains that if a subject’s attention is localized to a frame, then maneuvers outside the frame will rarely be detected (such as placing a coin on a shoulder). Magicians, he says, thoroughly manage attention at all times. People tend to think of “misdirection” as the art of making someone look to the left while some fast move is pulled on the right, but Apollo says it is more about force-focusing your spotlight of attention to a particular place and at a particular time.

Magicians exploit several psychological and neural principles to focus your spotlight of attention. One is sensory capture, which magicians call passive misdirection. When you see an object that is new, bright, flashy or moving—think of that white dove fluttering out of a top hat—your attention is driven by increased activity from your senses that flows up into your brain.

Furthermore, things that are novel (the unexpected dove) produce stronger responses in parts of your brain that are critical to the allocation of attention. The salience of an object is also increased when a magician actively directs your attention to it. For example, Apollo may ask you to leaf through the pages of a book while he places your stolen wallet in his pocket. You become absorbed in the task of turning pages. This is active misdirection. Your attentional control is focused on the book, and you ignore the hand.

Apollo messes with your head in other ways as well. His patter aims to generate an internal dialogue in your mind—a conversation with yourself about what is taking place. This, he says, results in a great deal of confusion. It slows your reaction time and leads you to second-guess yourself. Many magicians can also introduce delays between the method behind a trick and its effect, preventing you from linking the two. They call this “time misdirection.” Indeed, in many magic tricks the secret action occurs when you think that the trick has not yet begun or when you think that the trick is over.

End of Spoiler Alert.

Excerpted from “Sleights of Mind: What the Neuroscience of Magic Reveals About our Everyday Deceptions”. Henry Holt and Co, 2010 (<http://sleightsofmind.com>).