

the nerve blog

reflections on the mind and brain

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Magic Rooted in Neuroscience

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Magic and neuroscience are not two commonly associated topics. Yet we don't realize how pertinent these sleights of hand are to certain neural processes. Have you ever been walking down the street and been approached by a street magician? You say "bring it on mister" and think: *I'm smarter than this dude. If I pay close enough attention to what he's doing there's no way he can trick me.* But despite your best efforts, your wallet ends up in his hand and your chutzpah on the ground.

Based on a video from *Scientific American*, it appears that magicians are pseudo-neuroscientists. In the video neuroscientists Stephen Macknik and Susana Martinez-Conde analyze the work of street illusionist Apollo Robbins. Macknik and Martinez-Conde explain that magicians rely upon something called 'active misdirection' for their tricks. By using verbal cues and focusing his eyes on his left hand Apollo has directed your attention there. He then proceeds to snipe your wallet out of your back pocket with some quick movements of his right hand.



He probably threw in a couple jokes about the ol' ball-and-chain or your hideous sweater, right? Turns out it's difficult to pay attention to all of your surroundings while you're laughing.

According to another slightly far-fetched theory, magicians take advantage of 'mirror neurons' as well. Mirror neurons help us feel sympathy or, in this case, cause us to act similarly to the person we are interacting with. So when Apollo looks at his left hand your mirror neurons fire, cause you to follow his gaze, and 'poof' goes your wallet.

Watch the video from *Scientific American* [here](#).

By [Tessa Abagis](#) | Posted in [Uncategorized](#) | Tagged [Active Misdirection](#), [Magic](#), [Mirror Neurons](#)

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