CRUNCHY CON
Conservative politics and religion
with Rod Dreher

The neuroscience of magic

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Categories: Varia

Very cool article from Wired, in which the magician Teller helps explain the neuroscience behind magical illusions.

> For Teller (that's his full legal name), magic is more than entertainment. He wants his tricks to reveal the everyday fraud of perception so that people become aware of the tension between what is and what seems to be. Our brains don't see everything--the world is too big, too full of stimuli. So the brain takes shortcuts, constructing a picture of reality with relatively simple algorithms for what things are supposed to look like. Magicians capitalize on those rules. "Every time you perform a magic trick, you're engaging in experimental psychology," Teller says. "If the audience asks, 'How the hell did he do that?' then the experiment was successful. I've exploited the efficiencies of your mind."
> Now that on-the-job experimentation has taken an academic turn. A couple of years ago, Teller joined a coterie of illusionists and tricksters recruited by Stephen Macknik and Susana Martinez-Conde, researchers at the Barrow Neurological Institute in Phoenix, Arizona, to look at the neuroscience of magic. Last summer, that work culminated in an article for the journal Nature Reviews Neuroscience called "Attention and Awareness in Stage Magic." Teller was one of the coauthors, and its publication was a signal event in a field some researchers are calling magicology, the mining of stage illusions for insights into brain function.
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> "Tricks work only because magicians know, at an intuitive level, how we look at the world," says Macknik, lead author of the paper. "Even when we know we're going to be tricked, we still can't see it, which suggests that magicians are fooling the mind at a very deep level." By reverse-engineering these deceptions, Macknik hopes to illuminate the mental loopholes that make us see a woman get sawed in half or a rabbit appear out of thin air even when we know such stuff is impossible. "Magicians were taking advantage of these cognitive illusions long before any scientist identified them," Martinez-Conde says.

This is a really fun article to read, and again, it calls to mind the fundamental questions of epistemology raised in very different contexts by Dan Everett and Terry Eagleton (I recap a couple of these recent discussions on Crunchy Con in my latest column). Below the jump here, I've embedded a video in which Penn & Teller explain how they do the famous Cup and Balls trick.