Magic and the Brain: How Magicians “Trick” the Mind: Scientific American

Magicians have been testing and exploiting the limits of cognition and attention for hundreds of years. Neuroscientists are just beginning to catch up.

By Susana Martinez-Conde and Stephen L. Macknik

The spotlight shines on the magician’s assistant. The woman in the tiny white dress is a luminous beacon of beauty radiating from the stage to the audience. The Great Tomsoni announces he will change her dress from white to red. On the edge of their seats, the spectators strain to focus on the woman, burning her image deep into their retinas. Tomsoni claps his hands, and the spotlight dims ever so briefly before reflaring in a blaze of red. The woman is awash in a flood of redness.

Whoa, just a moment there! Switching color with the spotlight is not exactly what the audience had in mind. The magician stands at the side of the stage, looking pleased at his little joke. Yes, he admits, it was a cheap trick; his favorite kind, he explains devilishly. But you have to agree, he did turn her dress red—along with the rest of her. Please, indulge him and direct your attention once more to his beautiful assistant as he switches the lights back on for the next trick. He claps his hands, and the lights dim again;