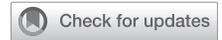


# EXTRACTS

## NO QUACKERY HERE



A study of magnetic resonance images (MRIs) taken while subjects were hypnotized shows that real changes occur in the brain when a person enters a hypnotic state. Although hypnosis was the first Western form of psychotherapy, little is known about its mechanism of action. In this study 36 of 57 patients were highly susceptible to hypnosis and 21 were not. The MRI measured brain activity through changes in blood flow during resting, recall of a memory, and exposure to a message intended to induce a hypnotic state. Those highly susceptible to hypnosis showed evidence of three distinct brain changes that weren't noted when they were not hypnotized. Those not susceptible to hypnosis did not show these changes.

Some parts of the brain relaxed and others became more active. For example, activity in the dorsal anterior cingulate, part of the brain's salience network, declined. The study's senior author, David Spiegel of the Stanford University School of Medicine, explained that this structure helps in comparing context and deciding what is worth considering and what is not. The study indicated that hypnotized people experience an increase in connections between the dorsolateral prefrontal cortex and the insula. The tasks of these structures include planning and carrying out tasks and connecting the mind to the body. Spiegel said, "In hypnosis, we know you can alter things like gastric acid secretion, heart rate, blood pressure, and skin conductance. Your brain is very good at controlling what's going on in your body, and the insula is one of the pathways that does that."

Hypnosis also allows a disassociation between one's actions and one's awareness of their actions. Because of this reduced connection, the subject can engage in activities without becoming self-conscious. This is a well-known outward effect seen in hypnotic subjects, but Spiegel also notes that, "This is a natural and normal brain function. It's a technique that has evolved to enable us to do the routine things routinely, and deeply engage in the things that matter to us." Thus the hypnotized person is intensely focused but not worried about what is being done.

Using the knowledge of which areas are affected and how, doctors may be able to enhance hypnotic responses to better manage medical conditions. Alan Manevitz, a clinical psychiatrist with Lenox Hill Hospital in New York City, said that "Hypnosis has been around for a long time, but people have looked upon it as quackery. This demonstrates that it's a legitimate neurobiological phenomenon, by revealing the brain activity that underlies the hypnotic state." The challenge that remains is how to make this specific knowledge useful in everyday medical practice.

[What Happens When You're Hypnotized? *HealthDay News*, July 28, 2016]