

Hypnotic induction decreases anterior default mode activity

Posted At : January 12, 2010 12:00 AM | Posted By : [Tim Brunson, PhD](#)

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The 'default mode' network refers to cortical areas that are active in the absence of goal-directed activity. In previous studies, decreased activity in the 'default mode' has always been associated with increased activation in task-relevant areas. We show that the induction of hypnosis can reduce anterior default mode activity during rest without increasing activity in other cortical regions. We assessed brain activation patterns of high and low suggestible people while resting in the fMRI scanner and while engaged in visual tasks, in and out of hypnosis. High suggestible participants in hypnosis showed decreased brain activity in the anterior parts of the default mode circuit. In low suggestible people, hypnotic induction produced no detectable changes in these regions, but instead deactivated areas involved in alertness. The findings indicate that hypnotic induction creates a distinctive and unique pattern of brain activation in highly suggestible subjects.

Conscious Cogn. 2009 Dec;18(4):848-55. Epub 2009 Sep 25. McGeown WJ, Mazzoni G, Venneri A, Kirsch I. Department of Psychology, University of Hull, UK.
