

## Brain stimulation 'awakens' near-unconscious patient

by Bend\_Weekly\_News\_Sources

A new brain stimulation treatment awakened a patient from a near-vegetative state, researchers reported Wednesday. "The previously non-verbal patient became capable of naming objects and using objects with his hands" for example, bringing a cup to his mouth," wrote Michael N. Shadlen and Roozbeh Kiani of the University of Washington Medical School in Seattle, Wash. in the Aug. 2 issue of the research journal *Nature*. "Moreover, he could swallow food and take meals by mouth," removing his dependency on a feeding tube. Shadlen and Kiani have followed the case but were not involved in the treatment, which was performed by Nicholas Schiff of Weill Cornell Medical College in New York and colleagues. People in a minimally conscious state are those who, because of severe brain damage, cannot interact with others, beyond some following simple commands, such as requests to blink their eyes or raise a hand. No effective treatments are known to date. Schiff and colleagues implanted electrodes into the brain of a 38-year-old male, six years after he suffered a severe brain injury that resulted in a minimally conscious state. The electrodes were used to stimulate an area known as the thalamus, on both sides of the brain, which has been suggested to have a role in arousal. Schiff's team surmised that the patient's problem might be due to an impairment of the arousal system itself, and the treatment was aimed at improving this, Shadlen and Kiani wrote. The team's findings were published in the same issue of the research journal. Schiff and colleagues cautioned that it's unknown to what extent their results might apply to other patients, who might have different types of injuries. But the findings should motivate further research into the mechanisms of recovery, they wrote. Debates over the amount of consciousness present in varying degrees of vegetative states fed into the controversy over Terry Schiavo, a brain-damaged Florida woman who died when doctors disconnected her feeding tube in 2005. Schiavo's official diagnosis was persistent vegetative state. But her parents, who had fought a legal battle to keep her alive artificially, and their supporters argued that she was in a minimally conscious state.

Courtesy Nature and World Science staff