## Sleeping brain still rehearses important tasks

Efforts to combine last minute cramming with a good night's sleep by sticking a book under the pillow and hoping the information will seep through aren't as ridiculous as they sound. Okay they are, but an audio book might just work.

The belief that the brain shuts down entirely during sleep is an even older, and more pervasive, myth than the book under the pillow. In recent years it has been discredited. We know that the brain does not turn off entirely during sleep. Even aside from dreams, we are able to <u>filter out less important noises we hear</u> <u>while asleep</u>, waking up for things that matter – although of course some of us are better than others. Sleep can also be a great way to lock in things we have learned previously.

A new study in <u>Current Biology</u> has shown that when it comes to absorbing information, sleep is the new awake.

Dr. Sid Kouider of Ecole Normale Supérieure de Paris and co-authors conclude, "Subjects classifying spoken words continue performing the task after falling asleep." They had participants lie down in a dark room and respond to a stream of words by sorting them into two categories, pressing one of two buttons to indicate their choice.

When given permission to fall asleep, many of the participants did just that. Naturally the button pressing stopped, but their brains did not. Using a electroencephalogram (EEG) the researchers found that the parts of the brain responsible for pressing left or right buttons continued to light up as they heard the words. Moreover, they lit up correctly – when the sleeping brain heard a word in the first category the area responsible for directing the left hand lit up, while the second category sparked the right hand's controlling area.

Read the full, original story: Your brain can make decisions during sleep