Better memory requires better 'bouncer'

November 23 2005

An Oregon professor says even if you could get more RAM for your brain, the extra storage probably wouldn't help you find where you left the car keys.

But Edward Vogel, a University of Oregon assistant professor of cognitive neuroscience, says what might help is a better bouncer -- as in the type of bouncer who manages crowd control for nightclubs.

Vogel is believed to be the first to demonstrate awareness, or "visual working memory," depends on one's ability to filter out irrelevant information.

"Until now, it's been assumed that people with high capacity visual working memory had greater storage, but actually it's about the bouncer -- a neural mechanism that controls what information gets into awareness," Vogel said.

The findings contradict the popular concept that a person's memory capacity, which is strongly related to intelligence, is solely dependent upon the amount of information one can assimilate.

Scientists say Vogel's findings may lead to developing more effective ways of optimizing memory, as well as improved diagnosis and treatment of cognitive deficits associated with attention deficit disorder and schizophrenia.

The study appears in the current issue of Nature.