

Creative thinking: try lying down

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Keep that pen and paper by the bed: new research by an ANU PhD graduate suggests it may be that our most creative thoughts come when we're lying down.

Dr Darren Lipnicki, from the School of Psychology in the Faculty of Science at ANU, found that people solved anagrams more quickly when they were lying down compared to standing up.

“Solving an anagram often produces an ‘A-ha!’ or Eureka moment — the answer appears suddenly, often out of the blue. These ‘insight’ moments are similar to what people experience when achieving creative breakthroughs,” Dr Lipnicki said.

“Therefore, it might be that we have our most creative thoughts while flat on our back,” he said.

According to Dr Lipnicki, whose results are to be published in *Cognitive Brain Research*, the reason this happens may involve differences in brain chemistry between lying down and standing up.

“In theory, there may be greater release of a chemical, noradrenaline, in the brain when standing up than when lying down.

“It’s suspected that noradrenaline inhibits the abilities to solve anagrams and to think creatively so we decided to test the idea that lying down would actually help solve anagrams more quickly.”

Dr Lipnicki asked 20 healthy subjects to solve anagrams in both a lying

down and standing posture. There were 32 five-letter anagrams, such as “osien” (noise) and “nodru” (round).

For each subject the anagrams were randomly selected into two 16-item blocks, one block for lying down and the other for standing up. Half of the subjects did the task in the order of lying down, then standing up, while the other half did the task first when standing and then when lying down. The average time for solving an anagram lying down was 26.3 seconds, while standing up the average was nearly 30 seconds.

Subjects were also asked to solve arithmetic problems, but the study found lying down made no difference to solving arithmetic compared to standing up.

“Anagrams can be characterised as insight problems, in part because they are often solved in a moment of sudden awareness. Both anecdotal reports and experimental evidence suggest that insight can occur during, or be inspired by, sleep,” Dr Lipnicki said.

“Our finding that postural condition affects how quickly anagrams are solved suggests that body posture may influence insight, which could be facilitated when merely lying down.”

But Dr Lipnicki said his study was preliminary research, and that it would be premature for “companies to rush out and buy beds for their conference rooms”.

Source: ANU

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