Sleep technique improves creative thinking
9 December 2021, by Bob Yirka

A team of researchers working at Sorbonne Université, reports that people may be more creative if awoken just after falling asleep. In their paper published in the journal *Science Advances*, the group describes experiments they conducted with sleeping volunteers.

Thomas Edison and Salvador Dali were both known to use a certain sleep technique to increase their creativity. It involved thinking about a problem or set of circumstances and then placing an object in their hand as they lay down for a nap. As they drifted off, their hand relaxed and allowed the object to fall to the floor rousing them from their sleep. It was at that point, they both claimed, that inspiration came to them. In this new effort, the researchers tested this idea.

Prior research has shown that in addition to REM sleep and deep sleep, most people experience a type of sleep known as N1—the short interval between being fully awake and fully asleep, a sort of twilight zone. It was this interval that the researchers set out to test. They recruited 103 healthy people who promised they had little difficulty falling asleep given the chance.

Each of the volunteers were given sequences of eight numbers and were then asked to apply two math principles to figure out the next one in the sequence. Volunteers were not told that there was another, much easier way to figure out the next number. It was always the same as the second number in the sequence. The volunteers were then asked to take a short nap while holding a cup that would fall and wake them if they dozed off. Each of the volunteers was fitted with probes to measure their brain waves to determine if they truly fell asleep. After the nap, the volunteers were asked to solve the same type sequence problem.

After the second go at the sequence problem, the researchers found that those people who had entered and exited N1 were likelier to determine the secret way to solve the number problem—83% of them figured it out, compared to just 30% of those who did not fall asleep during their nap time. Since figuring out the secret solution involved thinking...
creatively, the researchers suggest that people can improve their creativity by interrupting their own N1 sleep.


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