

New links between lucid dreaming and psychosis could revive dream therapy in psychiatry

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Similarities in brain activity during lucid dreaming and psychosis suggest that dream therapy may be useful in psychiatric treatment, a European Science Foundation (ESF) workshop has found. This is strengthened by the potential evolutionary relationship between dreams and psychosis.

Lucid dreaming - when you are aware you are dreaming - is a hybrid state between sleeping and being awake. It creates distinct patterns of electrical activity in the brain that have similarities to the patterns made by psychotic conditions such as schizophrenia. Confirming links between lucid dreaming and psychotic conditions offers potential for new therapeutic routes based on how healthy dreaming differs from the unstable states associated with neurological and [psychiatric disorders](#).

New data affirms the connection by showing that while dreaming lucidly the brain is in a dissociated state, according to Ursula Voss from the University of Frankfurt in Germany. Dissociation involves losing conscious control over mental processes, such as logical thinking or [emotional reaction](#). In some psychiatric conditions this state is also known to occur while people are awake.

"In the field of psychiatry, the interest in patients' dreams has progressively fallen out of both clinical practice and research. But this new work seems to show that we may be able to make comparisons between lucid dreaming and some psychiatric conditions that involve an

abnormal dissociation of consciousness while awake, such as psychosis, depersonalisation and pseudoseizures." said the workshop's convenor Silvio Scarone, from the Università degli Studi di Milano in Milan, Italy.

Meanwhile, the previously discredited idea of treating some conditions with dream therapy has attracted interest from clinicians. An example is people suffering from nightmares can sometimes be treated by training them to dream lucidly so they can consciously wake up.

"On the one hand, basic dream researchers could now apply their knowledge to psychiatric patients with the aim of building a useful tool for psychiatry, reviving interest in patients' dreams," continues Scarone. "On the other hand, neuroscience investigators could explore how to extend their work to psychiatric conditions, using approaches from sleep research to interpret data from acute psychotic and dissociated states of the brain-mind."

The existence of such psychotic conditions may be rooted in the evolutionary role of dreams, where dreaming is thought to have emerged to enable early humans to rehearse responses to the many dangerous events they faced in real life. Developed by Antti Revonsuo at University of Turku in Finland, if this threat simulation theory is correct it may have origins even further back in evolution, given that other mammals such as dogs also exhibit the characteristic electrical activity of dreaming.

Researchers also looked at the idea that paranoid delusions and other hallucinatory phenomena occur when the dissociative dreaming state involving replay of threatening situations is carried through into wakefulness.

"Exposure to real threatening events supposedly activates the dream system, so that it produces simulations that are realistic rehearsals of

threatening events in terms of perception and behaviour," said Scarone. "This theory works on the basis that the environment in which the human brain evolved included frequent dangerous events that posed threats to human reproduction. These would have been a serious selection pressure on ancestral human populations and would have fully activated the threat simulation mechanisms."

However, dreaming is unlikely to have evolved purely to recreate threats. It may also have a role in the learning process, according to Allan Hobson, a psychiatrist and dream researcher recently retired from Harvard University in the US. Contents are added while you are awake and integrated with the automatic program of dream consciousness during sleep. This works with observations that daytime learning is consolidated by night-time sleeping, leading to the phenomenon where people remember facts better the day after they have learnt them than at the time.

Source: European Science Foundation ([news](#) : [web](#))

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