

Can Freud's Theory of Dreams Hold Up Against Modern Neuroscience?

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HOBSON'S CHOICE Can Freud's Theory of Dreams Hold Up Against Modern Neuroscience?

This following is an excerpt from an article printed in 'The Believer' magazine written by Rachel Aviv. Oct 2007

It wasn't until the 1950s, fifty years after the publication of *The Interpretation of Dreams*, that scientists began bringing people into their labs for sleepovers. They'd spray water on them, or rub their faces with cotton puffs, or ring a bell and then wake them up and see what happened. Volunteers were kept up for days and watched closely, to see whether or not they'd go insane. The early experiments were crude and often conducted by psychiatrists trained in Freudian theory. One prominent researcher studied sexual dream symbols by attempting to correlate erections (he wrapped a nooselike device around the sleeper's penis) with aggressive dream content, like dog- and snakebites, knife fights, and scenes of choking. He was able to correctly predict tumescence seven times out of eight.

Other researchers took a sociological approach to dreams, meticulously cataloging their content: women dream of men more than men dream of women; black people are more likely to be physically damaged in their dreams than white people; 80 percent of adult dreams have a negative component—their hair looks bad or they can't find their keys or their kid won't stop crying—and after ninth grade, children's dreams become significantly more aggressive.

The field of dream research deals with the worst kind of data: reported by groggy volunteers, grasping at half-formed memories. Once you wake someone up, you've already interfered with the evidence. Hobson's Activation-Synthesis model was so well received, in part, because it was based on neuroscience, not subjective reports. Rosalind Cartwright, chair of psychology at Rush University Medical Center in Chicago, who is well known for her research on how dreams affect mood, recalls first hearing Hobson propose his model at a conference in the early '70s. "A bunch of us were sitting next to each other and we said, 'You got it the wrong way around! We won't let your physiological tail wave our psychological dream-dog!' I used to say about Allan, 'Oh the trouble is, he's looking at cell recordings, he's not talking to people—if he were paying attention to his own dreams, he would be smarter at it.' When he did start paying attention to these things, I felt he modified his ideas a good deal."

Only in recent years has Hobson become willing to talk more about the part of dreams that most people are interested in—feelings, symbols, characters, themes. After waking up from a particularly vivid nightmare, few of us are wondering, "What part of my brain was just functioning?" With practice and the help of a Nightcap (a bandanna device that beeps every few hours, wakes you up, then records whatever you say about your interrupted dream), Hobson began focusing more on the softer side of his field. "I love to talk about my dreams," he said at the consciousness conference last year. "I'm not sure any of it really makes any difference, or that I learn anything I didn't know, but it's a wonderful, wonderful thing to do."

His enthusiasm for dreams became even more pronounced when, for a startling month in 2001, he lost the ability to have them. While vacationing in Monte Carlo, Hobson suffered a stroke that affected the precise part of the brain stem that he began his career studying. He knew how his body would respond because he had done countless experiments on how damage to this area affects lab cats. He became nauseous, lost balance, and felt he was drowning in his own saliva. For eight days, he lost the ability to fall asleep. For a month, he couldn't dream. He felt himself becoming psychotic with exhaustion. Like Freud, inventor of the talking cure, dying of oral cancer, Hobson seemed to have the perfect affliction. "I was wide awake all night long," he recalls. "I said to myself, I am a cat. I am an experimental animal. But this is no experiment."

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After several days without sleep, Hobson began suffering from elaborate hallucinations. In 2002, he published articles about the experience in the journals *Cerebrum* and *Consciousness and Cognition*, vividly detailing his escalating visions.

Immediately upon closing his eyes, he'd imagine himself at the bottom of a swimming pool, or covered in pieces of computer paper. Later, he was deluged by images of swirling flesh: free-floating nipples, sphincters, and crotches. At one point, he saw "a Peter Pan-like version of a colleague, Robert Stickgold, and two fairies enjoying a bedtime story."

Hobson documented the stroke with a camera and tape recorder, dutifully noting strange thoughts, vomiting episodes, small improvements, and pain. The process reminded him of therapy, he said. Finally on the thirty-first day of his hospitalization, he had a full dream, his first in more than a month, in which his wife tried to cheat on him in forty-five minutes. Writing about the experience in multiple journals, he used the illness as a rare opportunity to provide a link between his own neurology and psychology. His doctors, however, were less interested in the connection. Hobson resented their quick and systematic diagnoses. No "doctor who saw me ever expressed any interest in what I was experiencing subjectively," he wrote.

For years Mark Solms has criticized the field of neuroscience for just this—ignoring personal experience, treating the mind as if it were a chemical pump. (He was drawn to neuroscience at a young age, when his younger brother became brain damaged after falling from a roof.) In the face of his own trauma, Hobson too has become increasingly open to the nuances of emotional life. His Vermont museum, which features animated dream reports and synthesized "sleep music," is a tribute to the artistic and literary possibilities of dreaming. His late-age approach has a lot more in common with Solms's "neuro-psychoanalysis" than either of them admit.

After forty years of studying dreams, Hobson seems seduced again by the mysteries that originally brought him to the field. Hard science can never adequately describe that murky, intuitive feeling in the morning—the sense that you spent the night somewhere else. When Freud abandoned his Project for a Scientific Psychology, there were problems beyond primitive technology: Deconstructing a dream is about as mathematical as pinpointing the coordinates of the Garden of Eden. The fascination endures because it's just out of reach, never fulfilled. Hobson was equipped with far more scientific knowledge than Freud could ever hope for, but he still finds himself making imaginative leaps, translating images into themes and symbols and fantasies. The concept of dreaming is born from this impulse: it's too hard to resist a good story.