

How and Why We Dream



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Being relatively new to dream studies, I decided it was about time I catch up with the literature. I had eight issues of IASD's scientific journal *Dreaming* and six issues of *DreamTime*, covering the last two years. Since I wanted to learn as much as possible, I decided to read them all cover-to-cover. I found *Dreaming* offers a great overview of theories on how and why we dream. Before this, I was under the impression that nothing was decided and nothing was settled in the dream field. Wow, was I wrong! Of course nothing is completely settled, but there is a solid foundation for current thinking about dreams. Here's a summary of what I learned. None of this is new to seasoned researchers, but it will fill in the basics for beginners.

First of all, there are decades of hard science behind dream studies, beginning with neurocognitive theory. In one study I read, Dr. G. William Domhoff outlined the exact parts of the brain responsible for dreaming: the "neural network – limbic, paralimbic, and associated areas of the forebrain" (Domhoff 2019, p. 267). He says "the neural network for dreaming is very likely a 'subsystem' of the default network, which subserves mind-wandering, daydreaming, and other forms of self-generated spontaneous thought during waking" (p. 266). He adds that twenty years of scientific research have continued to strengthen this understanding.

Another theory researchers study is the continuity hypothesis (CH) that says dreams reflect waking life. Calvin S. Hall and Robert L. Van de Castle established quantitative content analysis in 1966. They laid down a system to collect statistics from dreams that support the hypothesis. Some of the researchers affiliated with IASD studied with Hall and Van de Castle, and subsequent generations of dream researchers continue to study CH.

I was glad to learn that dream neuroscience and CH are well researched. The other prominent lines of inquiry revolve around why people dream and whether dreams serve a purpose. A paper by Ben Springett (2019) defines two sides of this discussion. ATs, adaptive theories, say dreams serve an evolutionary purpose. As Springett explains, to be adaptive, "the content of the dream should subsequently aid an organism in survival-enhancing wakeful behavior" (p. 223). The other side is SET, side effect theory. SET acknowledges the continuity between waking life and dreams, but says dreams are merely a side effect, or byproduct, of combining consciousness and sleep. Ergo, dreams don't mean anything and probably don't serve any purpose.

Introspection on the purpose of dreaming started in ancient times, when people believed dreams came from divine beings or ancestors. Some cultures thought dreams could convey precognitive information, warnings, or healing. Springett cites Dr. Kelly Bulkeley as one researcher who has said dreams, especially lucid dreams, influenced the evolution of religion (p. 223).

Springett offers a list of AT theories that support dream usefulness, beginning with Freud and Jung. Dr. Sigmund Freud (1856-1939), known as the founder of psychoanalysis, called dreams the royal road to the unconscious. Freud said dreams help people work out repressed desires, and may help with the “preservation of sleep,” meaning dreams help people stay asleep. Dr. Carl G. Jung (1875-1961), founder of analytical psychology, said dreams help balance the personality. Jung believed balancing the conscious and unconscious minds could resolve emotional problems. Subsequent to Freud and Jung, researchers added more details, as cited in Springett (pp. 223-224); for example, M. Jouvett (1999) said dreams help people develop individuality.

Springett also cites the rise of the memory consolidation theories. One researcher he noted, C. Evans, developed the theory of memory fragmentation in 1984. This means sleep and dreams defrag the biological hard drive, the brain, consolidating and filing the important experiences, and deleting useless data. *Dreaming* presented several studies in which researchers tested whether dreaming helped with memory.

Springett describes the AT theories that dreams help people practice for waking life. Thus dreaming could be compared to virtual reality, where people play games or have experiences to enhance their coping skills. These ATs include threat rehearsal theory, mastery theory, social simulation theory (SST), and threat simulation theory (TST).

Another AT in this category says dreams allow people to update and fine-tune their model of the outside world. Yet another, called dream mentation, says dreams are more than just continuous with waking life,

and more than just replicating situations for virtual learning. The theory says dream metaphors show signs of intelligence, similar to the intelligence people apply to their mentation in waking life.

In one paper, Eeles and Pinsker (2020) elaborate on the daydream to night dream hypothesis. They propose “from a subjective experientialist position that dream content is specifically derived from daydreams or mindful wandering” (p. 69). They call it a new theory of the origin of dreams, and offer avenues for further study. They say the hypothesis is testable, but “if confirmed, dreams may still be devoid of reason” (p. 75), and merely a side effect of daydreaming.

One creative theory is the cassette theory (Ferreira, et. al. 2019). The paper cites D.C. Dennett who, in 1976, pointed to the phenomenon of having a full dream in the split second it takes to awaken from an alarm clock. Dennett is quoted: “. . . perhaps there is a ‘library’ in the brain of undreamed dreams with various indexed endings, and the bang or bump or buzz has the effect of retrieving an appropriate dream and inserting it, cassette-like, in the memory mechanism” (p. 80).

One study looked into how cancer patients make meaning out of their dreams (Ahmadi and Hussin 2020). Patients reported dreams of grief, fear of dying, and denial, as well as encouragement. The researchers describe three cases where respondents had procrastinated for months or years, but “dreams served as an alarm for them to seek medical attention” (p. 84). In two cases, a deceased relative appeared to warn them that they had cancer, and in the third case it was a random person who told them.

One promising AT theory is the dreaming-is-play theory. Kelly Bulkeley describes dreaming-is-play as “. . . a broad interdisciplinary theory of dreaming that

combines Freudian and Jungian views with insights from anthropology, religious studies, neuroscience, evolutionary biology, and cognitive psychology. This theory proposes that dreaming is a kind of play, the play of the imagination during sleep” (Bulkeley 2020, p. 297).

He says play is evolutionary because the behavior predates the arrival of the human species. One purpose of play is to prepare juveniles of a species for their lives as adults. Play teaches hunting, avoiding predators, and social behaviors. He says play can be competitive, spontaneous, or part of folk traditions, such as rites of passage, festivals, and other moments that bring “more spontaneous play into the social order” (p. 298).

Bulkeley said the dreaming-as-play theory goes back to 1971 and listed the similarities between dreaming and play: both provide opportunities for learning to respond to waking life situations. Both are forms of spontaneous creativity, and both combine impossible and realistic elements.

As science continues to probe whether dreams serve a purpose, many non-scientists have already made up their minds. One study surveyed 667 people and found 414 participants reported having had at least one dream they considered useful or helpful (Olsen, Schredl, and Carlsson 2020). The researchers said, “When generally asked to specify how dreams had been of help, ‘creative input,’ ‘emotional problem solving, e.g., relationship issues,’ and ‘providing personal insight’ were mentioned most often” (p. 264).

In past centuries, certain cultures believed dreams were evil, or of the devil. I only found one reference to this theory. In the study of cancer patients, one participant told the researchers, “I sought a religious person’s opinion about my dream. He said, dreams are not real.

They’re a way for evil to play with our emotions” (Ahmadi and Hussin, p. 87). Thank goodness the dreams-as-evil theory is not at issue in dream research.

However, there’s more to investigate, and more already out there for newcomers like me to discover. I hope this summary helps others who are just beginning to find their way around the ongoing study of dreams.

References

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