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THE FIELD OF DREAMS

An Overarching Theory of Dreaming?

Does our field of dream studies, like physics, need an overarching, general theory? I wonder if the evolutionary survival hypothesis might qualify. Since this hypothesis is not my invention, I can propose it without investment in the discussion I hope will ensue. My interest in the evolutionary aspect of dreaming has developed over the past decade or so, from dreams I've had about our evolution, from teaching Evolutionary Psychology, and from collecting dreams on the topic.

Evolutionary Psychology attempts to identify what is innate and universal to all humans—which dreaming is—and it draws on the useful distinction between local or proximate explanations and final or ultimate ones. Single dream theories from various theoretical perspectives offer proximate explanations for some dreams: last week's dream was a problem-solver, last night's was compensatory. As in the tale of the three blind men and the elephant, these proximate descriptions are not inaccurate; they pertain only to part and not the whole. Not all dreams are compensatory, problem-solving, and so on. Any overarching theory of dreaming would need to describe a dynamic that pertains to all dreams, all of the time. With REM dreaming being 140 million years old in all mammals, the survival hypothesis makes a good candidate for a general theory.

Here is a list of contemporary dream theories put into the common parlance of the purpose a dream serves: Dreams can reflect our emotional concerns; show us how we view others; rehearse for life's next stage; warn us of impending difficulty; compensate a biased attitude; help solve social problems; open the door to non-ordinary realities. This list is not comprehensive, but covers most of the well-accepted, well-substantiated functions dreams can have. I invite you to hold up the evolutionary survival template and consider whether the functions listed could also be said to benefit our survival. It seems to me that all do. It surely helps us to survive and thrive to have dreams that warn us of impending difficulties or reveal life's next challenge. The evolutionary survival explanation does not replace proximate ones, but supplements them.

The survival aspect of dreams and dreaming will make sense, however, only if we have a broader conception of it than Darwinism provides. Being survival fit has come to mean getting your genes into the gene pool or fostering the genes of your close kin. The Darwinian model is a competitive one, deeply influenced by the dominator ethos of the colonialist era in which it emerged. As Landau has shown in her brilliant work, *Narratives of Human Evolution,* "evolution" has become a creation myth with a heroic fantasy of how our species overcame environmental obstacles and triumphed over the rest of nature. A similar mythic fantasy of heroism often colors our attitude toward dreams and dreaming and the unconscious and unknown in general.

To evaluate whether something fosters our survival or not, we need to consider not only physical or genetic survival, but our whole human range. Humans who have access to their thinking, feeling, sensing, and intuiting capacities are going to be more survival fit than those who have to rely on only one of these. Dreams regularly assist in broadening our range, and this itself is evidence of their survival function. There is ample evidence from dream research to suggest that some interior "light" may even survive the transition from living to non-living; this likewise must broaden our notion of what survival means.

The first main contribution to the evolutionary hypothesis I found in the clinical literature is the 1966 article, "Toward an Evolutionary Theory of Dreaming," by Frederick Snyder, then chief of NIMH's Section on Sleep Pathology. He characterized REM dreaming, a third state distinct from both sleeping and waking, as a "sentinel state" that enables those mammals vulnerable to prey to awaken intermittently during the night, which provides a survival advantage.

In 2000, cognitive neuropsychologist Antti Revonsuo published an extensive article on how dreaming simulates threats humans faced in our formative hunter-gatherer environment (the environment of evolutionary adaptedness or "EEA," named by Bowlby), thus allowing us to rehearse for equivalent threats in today's world. He noted that this would explain the high level of unpleasant dreams commonly reported, especially themes such as falling or being pursued by attackers. The limitation of his work is that it is still tied to the outmoded Darwinian notion of survival only to pass on genes.

In the 2002 issue of *Scientific American* devoted to dreaming, brain researcher Jonathon Winson demonstrated that the hippocampal theta rhythm, present when animals are actually engaged in survival activities like foraging, is also present during REM. He proposed that REM is the state in which short-term memory is shifted to long-term storage. It's how squirrels find all those nuts they've hidden! Winson's research has not yet been extended to human subjects, but his important findings provide good evidence of how REM serves a survival function.

Clinicians, going back a century, have also noted the survival function of dreaming. Ferenczi, an early psychoanalyst, called dreams "evolution's workshop." British psychology professor Liam Hudson, in *Nightlife,* said "the dream is integral to our powers of adaptation," but he worried that dreams were a wilderness at risk of becoming another casualty in this age of technological domination.

C. G. Jung was shown the evolutionary foundation of our species in his well-known dream in 1909 of a multistoried house with prehistoric remains in an underground cave. His years of personal and professional experiences of this level of the human psyche led him later to make the claim: "Nothing has been lost from the whole immemorial experience of humanity. Every imaginable situation and every solution seem to have been foreseen by the collective unconscious." In light of contemporary brain research such as Winson's, Jung's statement no longer seems outlandish, but merely ahead of its time. Jung recognized that the evolutionary stratification of the psyche is "more discernible in dreams than in the conscious mind." And in a 1960 letter, he clarified that what he meant by the collective unconscious is "age-old phylogenetic experience." If only he had used this well-accepted term from biology earlier, his contributions would have seemed better grounded. Anthony Stevens, author of the superb work, *The Two Million Year Old Self,* summarizes Jung's work well: "It was Jung's startling and original discovery that our dreams actually grant us access to this ancient substratum of experience—namely that in our dreams we participate in our phylogeny (our evolutionary history). Or, to put it another way, in our dreams, we speak to the species and the species answers back." With a strong background in both ethological research and medicine, Stevens is qualified to say "the presence of REM sleep in so many species and so many millions of years establishes by all evolutionary criteria that dreams perform a survival function." He goes on to describe just how this works, using less technical language than others I've cited: "Dreaming . . . seems to evaluate current experience against a store of encoded information that has been assembled over millions of years of evolution and which provides a reliable template for guiding our actions."

When REM dreaming appeared in evolutionary history, the size of the prefrontal cortex was dramatically reduced, indicating that the burden of storing experience no longer had to be handled by an ever-increasing brain size. REM is truly a mystery whose complexity we have yet to fathom. My own impression is that the activity of dreaming is far more complex than waking consciousness. Revunsuo suggested that REM may be our psychophysical immune system. I don't want to limit our understanding of dreaming by prematurely proposing an overarching theory of it. The evolutionary survival function, however, as I view it, is not a single, limited one, but basically the "life instinct" itself, to use Jung's term, also known as *autopoiesis,* the central property of all life to maintain and preserve itself.

In the next column I will present, from my current research, dreams that contain explicit references to our evolutionary past, present, and future. I close with this wonderful exhortation from Robert Jay Lifton's *The Future of Immortality:*

"The dream is central to our evolutionary inheritance . . . More than ever we must dream well if we are to confront forces threatening to annihilate us . . . if we are to further the wonderful, dangerous, and always visionary human adventure."