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ure 1.8. One could ask the question: what are the brain events that make dreaming possible? What is the purpose of dreaming? What are the micro-level mechanisms responsible for the phenomenological experience of a dream? This is a fascinating approach to the problem of consciousness. He states, if we could develop a "dream catcher test" (pg. 300), we could then make a quantum leap in understanding the biology of subjective phenomenological experience. His explanation of how this can actually be done is somewhat laborious and at times difficult to follow, but basically he has this to say.

Imagine that we have a "brain team" and a "dream team." The brain team would collect data in the laboratory. It would study the neuroanatomical, neurophysiological, and neurochemical substrates of dream images. A dream team would also exist that could quantify what the actual subjective images were in the context of any given dream and how they interact. He then goes on to suggest that "the task for both teams is to construct, from the different sources of data available for each team, a full-scale, multimodality, 3D computer animation of the dream events that unfolded just prior to awakening the subject, and exactly as they were experienced by the subject. Both teams work independently, without knowing anything about each other's work. The resulting dream models will portray—in as much detail as possible, and as closely resembling the subject's original experience as possible—the dream setting, the objects, persons, and interactions present in the dream; and the temporal progression of the dream events" (pg. 302). In other words, by taking the knowledge that emanates from the neurosciences and biology and combining it with knowledge that would come from the psychological description

of a person's dream, one could bring these two bodies of information together and integrate different levels of knowledge. This would allow us to predict, from a biological perspective, what is experienced as a phenomenological state during dreaming in a given subject. While this is a fascinating idea, it is one that still remains difficult to imagine as to exactly how this would be done. Moreover, the relevance of specific dream images for a given individual with a unique psychosocial history is not adequately considered by Revonsuo. For example, one person may dream being on a large ocean liner that has no side rails, but is moving slowly out to the open sea. It may stimulate in that individual a sense of excitement and wonder regarding the future. For another individual, the same visual images might produce anxiety and worry about falling off of the ocean liner into the sea. The same mental/visual image of an ocean liner without side rails moving into the open sea could carry with it completely different psychodynamic meanings and affective experiences. This is not adequately considered when attempting to apply the "dream catcher test" to the study of consciousness. It is, from the point of view of this reviewer, the major weakness of Revonsuo's innovative approach.

Nevertheless, the strength of this book is in helping us "think outside of the box" and seriously consider developing a research program that encourages scientists to coordinate their efforts to approach the study of human subjective experience (i.e., consciousness) from multiple levels, which have as their goal convergent information which leads to predictive validity. Anyone interested in the problem of impaired self-awareness after brain injury will enjoy reading Revonsuo's *Inner Presence: Consciousness as a Biological Phenomenon*.

RECENT AND RELEVANT

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An Introduction to Cognitive Psychology: Processes and Disorders, Second Edition. 2006. By David Groome with Nicola Brace, Hazel Dewart, Graham Edgar, Helen Edgar, Anthony Esgate, Richard Kemp, Graham Pike, and Tom Stafford. New York: Psychology Press, 449 pp., \$16.95 (PB).

Disorders of Volition. 2006. Natalie Sebanz and Wolfgang Prinz (Eds.). Cambridge, MA: The MIT Press, 493 pp., \$50.00 (HB).

Stuttering and Cluttering: Frameworks for Understanding and Treatment. 2006. By David Ward. New York: Psychology Press, 436 pp., \$39.95 (HB).

What Causes ADHD? Understanding What Goes Wrong and Why. 2006. By Joel T. Nigg. New York: Guilford Press, 422 pp., \$42.00 (HB).

Military Psychology. Carrie H. Kennedy and Eric A. Zillmer (Eds.). New York: Guilford Press, 400 pp., \$45.00 (HB).

Hot Thought: Mechanisms and Applications Of Emotional Cognition. 2006. By Paul Thagard. Cambridge, MA: The MIT Press, 301 pp., \$36.00 (HB).