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Book reviews

The Dreaming Brain. By J. Allan Hobson. New York: Basic Books, 1988. 319 pp. $22.95.

Hobson's book reminds me of two other widely read, now classic volumes: Julian Jaynes' *The Origin of Consciousness in the Breakdown of the Bicameral Mind* (1976), and J. D. Watson's *The Double Helix* (1968). All three books present an important historical analysis of their topic followed by a bit of scientific drama, and culminate in the synthesis of a new, important scientific idea. Likewise, all three appeal to both the academic and the sophisticated lay audience, by relating the process and content of science from a technical, yet highly personal view.

The Dreaming Brain is organized into six sections: a single chapter introduction and overview; three chapters on the history of dream science; three chapters on the neurobiology of sleeping and dreaming; three chapters presenting Hobson's "activation-synthesis" model; five chapters which apply the model to actual dreams and discuss the implications; and lastly, another single chapter on the future of dream science. It is this overall structure in general, and the historical analysis in particular, which remind me so much of Jaynes' book; it is the latter chapters, which present the development of the model itself, and the air of enthusiasm and excitement, which remind me of Watson's story.

In many places I find Hobson to be almost bending over backward, or even patronizing toward psychoanalytically-oriented readers; I found this progressively so in the later chapters. On the other hand, parts of Hobson's presentation of basic neurobiology are so simple that he could not have solely the psychiatrist-reader in mind. One of the difficulties in reading this book, like all other texts which aim for such a broad audience, is that one has to suffer through parts that are intended for another readership. I do not fault Hobson on the end result; I believe he has done a fine job of integrating many levels of explanation. I admit that for the same reason, I also found it difficult to read Jaynes and Watson, even though I would highly recommend them to almost anyone.

Hobson's main goal, it seems, is to educate readers about the historical contingencies which led to the development of Freudian dream theory, to thus show how Freud's non-scientific and non-objective conclusions have incorrectly biased psychiatrists and the public alike, into overinterpreting the psychodynamic component of dream mentation. Unlike Freud's model, which posits a psychological basis for and purpose of dreams, Hobson's "activation-synthesis" model (formulated jointly with Robert McCarley in the late 1970s), suggests that dream mentation is simply the epiphenomenological result of the complex human cortex trying its best to interpret the neurobiological (primarily brainstem) activity which takes place during REM sleep. Having worked in sleep research at around the time that Hobson and McCarley first published their ideas (see

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especially, Hobson & McCarley, 1977), I admit that my reading of this book is like a case of preaching to the converted—I have long been sympathetic to the idea that dream mentation can be interpretable without necessarily being purposeful. But apparently, Hobson's personal experience with practising (as opposed to research-oriented) psychiatrists, suggests that this idea is not only new but also threatening to many who have immersed themselves in the Freudian tradition.

The applied section of the book, which illustrates the model using dreams from an anonymous scientist's diary, seems to me to be better left out and published separately as a monograph. The analysis of these anonymous dreams is intended simply as an exercise, as an example of how the model treats dream content, but I felt that Hobson overextended his material in support of the model. That dream images, and particularly dream action, are a product of the cortex's interpretation of internally-generated brain activity I have no doubt; and that dream content is therefore "transparent" rather than disguised I also have no doubt. But this "transparency" is surely of a personal nature, and is best "read" by someone who knows the daily activities and thoughts of the dreamer. Even this neurobiologically-based theory leaves room for a multitude of possible interpretations of dream mentation, and I do not feel at all better enlightened by having read Hobson's analyses of this unknown dreamer's thoughts. (The dreams by the way, did not come from an acquaintance of Hobson, rather he purchased them through a mail-order catalogue).

The last chapter of the book, on the future of dream science, seems more to me a retrospective of old ideas (and unfortunately, does not credit some of the important minds and ideas upon which it is based). All in all, Hobson's vision of the future does not prove to be as exciting as his vision of the past. I felt a hint of tiredness creeping in as I reached the end.

The Dreaming Brain is worth purchasing; it is one of a kind and will not be eclipsed. But some readers might want to read only the first half. By the time Hobson reaches the midpoint, where presentation of the "activation-synthesis" model begins, the reader who has been paying attention should be able to derive the model alone. Hobson's personal relationship to the model results in often-colourful writing in these later chapters, but personally, I did not take to his repeated metaphor of pontine giant cells as little machine-gunners. It also becomes clear to the reader that unlike Watson's DNA story, which was told well after science had fully accepted and built upon the Watson and Crick findings, Hobson's story is being unfolded in progress, and there are yet many holes and unanswered questions. The excitement Hobson conveys, though justified for him and others in the field, is perhaps premature for readers who hope to see a more clear-cut ending.

References

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