

**The Mind in Sleep: Psychology and Psychophysiology.** A. Arkin, J. Antrobus, and S. Ellman (Eds.). Hillsdale, N.J.: Erlbaum, 1978, 653 pages, \$29.95.

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The editors of this volume have taken on the monumental task of providing a review of the vast literature on "sleep mentation"—what used to be called dreaming. In general, they have succeeded extremely well. Most of the 18 chapters provide clear, concise, and informative reviews of specific issues in the broader area of sleep mentation research. Topics covered include the characteristics of sleep mentation found in different sleep states, the incorporation of external stimuli into dreams, sleepwalking, night terrors, and REM deprivation. In addition, several chapters report results of original research. It is in these chapters that the book is weakest. These reports are, in one case, much too long (55 pages for a report of "preliminary findings," see Chapter 9) and in another case, the reports are hampered by gratuitous Freudian interpretations of the data (see Chapter 8).

Several chapters deal with the fearsome methodological problems facing sleep researchers. In the past ten years these problems have been dealt with in an increasingly sophisticated manner. As a result, several popular beliefs about sleep mentation, based on early work, have been disconfirmed. For example, dreaming is not confined to REM periods. It is seen also during non-REM sleep, although dreaming here is somewhat less frequent and of a different, less bizarre nature during non-REM periods. Another casualty of recent research is the belief that REM deprivation leads to psychotic behavior during the waking period.

One issue that still generates much interest among sleep researchers is that of the symbolic content of dreams. Although only one chapter deals with this issue directly (Chapter 17), analysis of dream content weaves in and out of many of the other chapters. The issue is almost always stated in terms of deciding between alternative methods of interpreting the symbolic content of dreams. Little consideration is given to the view that the symbolic interpretation is a post-hoc construction more in the mind of the interpreter than in the mind of the dreamer. For example, in Chapter 18 Antrobus reports the dream of an Oregon logger who was in the hospital for vascular surgery on his leg. (The original report can be found in Breger, Hunter, and Lane, 1971). The dream featured a logging train which was unable to pass a switch that was blocked by rocks and had to be dug out. Antrobus states that "there is a double representation in this report of some features of the impending surgery. The veins are similar to the railway track. Blood moving through the veins is similar to the train moving along the tracks . . ." (p. 571). Certainly one must agree that these "things" are similar, in one way or another. But they are also similar, with a little creative interpretation, to almost anything else! It is difficult to think of *any* operation that could not be made consistent with this dream, given enough post-hoc interpretation—as invariably all dream interpretation must be. Conversely, almost any dream could be seen to contain "representations of some features of the impending surgery." It seems much more parsimonious to view the dream as simply the recreation of some familiar scene in the dreamer's experience. Certainly the evidence that dream content is symbolic, in either Freudian or non-Freudian terms, is sparse indeed and is generally of the same type as that used to argue for the reality of

prophetic dreams. While events that occurred during the waking period, or themes that the dreamer thought about during the waking period, do appear in dreams, they do so in rather straight-forward, albeit bizarre, ways. As McCarley and Hobson (1977; see also Hobson and McCarley, 1977) have pointed out in their neurobiological theory of dream generation, the confusion and primary process characteristics of dreams probably have more to do with the physiological nature of dream generation than with any symbolic content of the dream per se.

Readers of this volume will gain new perspectives on a field that, if still trying to break the chains of psychoanalytic thought, has made great strides in the past few years. If the vigor and excitement evident in most of these 18 chapters are representative of the field in general, the next 10 years should be even more productive.

### References

- Breger, L., Hunter, I., and Lane, R. The effects of stress on dreams. *Psychological Issues*, 1971, 7, monograph 3.
- Hobson, J., and McCarley, R. The brain as a dream state generator: An activation-synthesis hypothesis of the dream process. *American Journal of Psychiatry*, 1977, 134, 1335-1348.
- McCarley, R., and Hobson, J. Neurobiological origins of psychoanalytic dream theory. *American Journal of Psychiatry*, 1977, 134, 1211-1221.