Testing the continuity hypothesis

Commentary on "The continuity and discontinuity between waking and dreaming: A Dialogue between Michael Schredl and Allan Hobson concerning the adequacy and completeness of these notions"

Kelly Bulkeley

The Graduate Theological Union, Berkeley, California, USA

One hundred and twelve years ago, the world was a very different place. Germany was ruled by Kaiser Wilhelm II. The US President was William McKinley. Radio and television had not yet been invented. The Wright brothers had not yet flown their first airplane, and Henry Ford had not yet built the Model-T automobile. Twenty-one year old Albert Einstein was just finishing college.

Much has changed in 112 years, yet J. Allan Hobson and Michael Schredl still believe Sigmund Freud's Interpretation of Dreams, published in the fall of 1899, is the best place to start a scientific discussion of dreams. Hobson has often described his angry disillusionment with the psychoanalytic training he received as a young psychiatrist, so he has earned the right to feel some degree of personal animus toward Freud. But the problem is that Hobson and Schredl both take Freud as the appropriate starting point for a conversation today, in 2011, about scientific methods in the study of dreams. More than a century has elapsed since Freud's era, a century filled with an abundance of significant research, yet Hobson and Schredl remain fixated on the past, battling the ghosts of Freudian orthodoxy and neglecting the valuable work of other investigators.

As odd as it is to see so much attention to Freud, it seems even more puzzling that neither Hobson nor Schredl mention the work of G. William Domhoff. Domhoff's 1996 work Finding Meaning in Dreams made a very detailed argument in favor of the continuity hypothesis, and his 2003 book The Scientific Study of Dreams likewise argues for a strong but not absolute continuity between dream content and waking concerns. To neglect Domhoff's work in a discussion of the scientific merits of the continuity hypothesis calls into question the adequacy of any conclusions drawn from that discussion.

I am latecomer to scientific research on the continuity hypothesis, having originally been trained in interdisciplinary methods of studying existentially meaningful dreams. But over time the scientific evidence of waking-dreaming continuities impressed me as something that an interdisciplinary approach to dreaming should be able to accommodate. In recent years I have done several studies using "blind" analysis to test various aspects of the continuity hypothesis. A blind analysis means studying the dream reports without referring to any background information about the dreamer's personal life (and ideally without even reading the dream narratives, looking only at the statistical frequencies of word usage), as a way of limiting the influence of external assumptions on the researcher's analytic process. In the Merri and Barb Sanders series (2009) I found meaningful continuities between their dreams and their waking attitudes about religion and spirituality (Bulkeley, 2009). In the Van series I identified connections between his dreams and his waking life relationships, daily activities (as a newspaper reporter), personality attributes, and cultural preferences (Bulkeley & Domhoff, 2010). In the Bea series (forthcoming) patterns in her dream content accurately reflected important aspects of her emotional welfare, daily activities (as a student-athlete), personal relationships, and cultural life. In the book American Dreamers (2008) I studied the year-long dream journals of ten middle-income adults (not blindly, but with the benefit of extensive personal interviews) and found numerous continuities with their waking life concerns about family, finances, religion, politics, and the environment.

The first conclusion I drew from these and other content analysis findings was that they disprove the claim, still advanced by people unfamiliar with the research literature, that dreams are nothing but random neural nonsense. The empirical evidence overwhelmingly refutes that idea. The second conclusion was that dream content is structured to a significant degree by the emotional concerns of waking life. Dreams do not represent an "objective" account of waking life but rather the emotional experiences that occupy the individual's mind and motivate his or her behavior. To put it aphoristically, dreams are less like newspaper articles and more like entries in a poetry journal.

Hobson and Schredl spend a good deal of time trying to define the continuity hypothesis, but they never seem to grasp its essential simplicity. Dream content is mostly continuous with waking life, and those elements of continuity tend to revolve around the individual's emotional concerns. It's so simple as to be banal, yet it serves pragmatically as a very useful tool of empirical dream research.

Hobson and Schredl have much more interesting things to say about the discontinuities between dream content and waking life. Here I agree with Hobson on the point that discontinuities can represent creative aspects of dreaming. His theory of "protoconsciousness" is comparable to Antii Revonsuo's threat simulation theory, Ernest Hartmann's connectionist ideas, and (if one wanted to go back a century) to C.G. Jung's theory of the prospective and compensatory functions of dreaming. Schredl's appeal to Carl Rogers' theory of personal growth is also appropriate, and opens the door to a bigger and potentially fruitful conversation with humanistic psychology.

In my study of the Merri and Barb Sanders series I focused on both continuities and discontinuities. To analyze the discontinuities I formulated a "provocation hypothesis,"

Corresponding address:
Kelly Bulkeley, Ph.D., The Graduate Theological Union, Berkeley, California, USA.
E-mail: kellybulkeley@earthlink.net

proposing that rare but intensely memorable dreams with unusual, "bizarre" aspects of content can reflect existential or religious concerns in a person's waking life. In the Merri and Barb Sanders series I was able via blind analysis to identify specific dreams ("big dreams" in Jung' sense) that were extremely discontinuous with each woman's waking life yet very important in relation to her religious and spiritual beliefs. This finding seemed to correspond well with the work of other contemporary researchers who have studied extraordinary types of dreams, such as Harry Hunt, Don Kuiken, Stanley Krippner, Roger Knudson, Kate Adams, Jayne Gackenbach, Fariba Bogzaran, Tracey Kahan, Alan Moffitt, and Jeremy Taylor.

It's good to see Hobson moving in a direction these other researchers have been following for many years. However, his motives still seem questionable. By the end of the discussion Schredl is willing to reach a sensible agreement that dream content includes both continuous and discontinuous elements. Yet Hobson insists on a maximally skeptical theoretical stance towards the idea of continuities. Why won't he accept Schredl's offer of a compromise?

The answer may have to do with a disadvantage of Hobson's "cross-species neurobiological approach," namely that he is lashed to the mast of REM-dreaming isomorphism. Hobson's disciplinary framework requires him to regard dreaming as discontinuous with waking thought because the chemistry of the brain shifts dramatically from the waking state into REM sleep. If brain chemistry is relevant to the study of dreams, this kind of shift must make a difference, and thus a difference is what Hobson must seek. But what if there were empirical evidence that many aspects of high-order cognition are regularly reported in dreams? What if genuine dreaming is reported from stages of the sleep cycle other than REM? What if only a small percentage of dreams are truly "bizarre" or outlandish, while most dreams are relatively mundane with familiar people, places, and activities? Were Hobson to take into account studies answering these questions in the affirmative, his theoretical ship would sink, and so he must reject them. He insists on the differences between dreaming and waking because the value of his cross-species data depends on it. Let's not forget that neuroscientists are selling something too!

References

Bulkeley, K. (2008). American Dreamers. Boston: Beacon Press.

Bulkeley, K. (2009). The religious content of dreams: A new scientific foundation. Pastoral Psychology, 58, 93-106.

Bulkeley, K., & Domhoff, G. W. (2010). Detecting meaning in dream reports: An extension of a word search approach. Dreaming, 20, 77-95.