Sleep Around the World

ANTHROPOLOGICAL PERSPECTIVES

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Chapter 9

Sleep Deprivation and the Vision Quest of Native North America

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Introduction

Psychologists have long argued that sleep deprivation is a gateway to “delirium”—unintentional episodes of delusional fantasy. Psychological testing has demonstrated that after at least two or three days of sleeplessness, perception becomes increasingly clouded with auditory and visual “hallucinations” (Oswald 1962, 187-189). Hobson (1999[1994]) argues that delirium is in fact a natural part of our circadian rhythm—that is, biological rhythms of sleep and arousal that are “a fundamental adaptation to the solar cycle of light and dark” on earth (Moore 1990, 3). In Hobson’s paradigm, delirium is said to express itself nightly during Rapid Eye Movement sleep (REM sleep), the phase of sleep in which we dream most actively (Wehr 1990, 70-71).

Psychological models of “delirium” aim to reduce the phenomenal content of dreams or sleep deprivation experiences as false perception. This position is problematic in sociocultural anthropology because it presumes that authentic perception is universally monophasic, occurring only in normal waking consciousness. The anthropology of sleep challenges this presumption by expanding our comprehension of the interplay between psychology, biology, culture, and religion, while considering alternative ontologies where authentic perception is deemed polyphasic—occurring in multiple modes of consciousness (Laughlin 2010, 65). The anthropology of sleep includes research into phenomena such as dreaming (e.g., Tedlock 1992a; Lohmann 2003a), and sleep paralysis (Adler 2011)—a condition caused by accumulated stress, anxiety, and sleep deprivation, where the mind partially awakens yet remains half asleep, while the
body is paralyzed by atonia (a neurological function that keeps one from acting out their dreams). An aspect of the anthropology of sleep that has not received much consideration thus far, however, is sleep deprivation and the impact it can have on psychological processes, which in turn influence the matrices of culture, economy, religion, and identity constructs.

In this chapter, I explore sleep deprivation as a cultivated method of spiritual revelation and empowerment in Native North America. I focus on sleep deprivation as a practical component of the vision quest, an ascetic ritual that involves individuals retreating from their communities to isolated locations in the wilderness where they pray for spiritually empowering dream-visions (Benedict 1922; Ridington 1971; Dugan 1985; Irwin 1994). I employ the term "dream-vision" here to imply that it is often unclear in ethnographic literature or in informant narratives whether or not experiences during a vision quest occur in dreams, waking trance, or, as Wissler (1912, 71) has suggested, to what degree they are fabricated or altered through narration.

To explore sleep deprivation in the ritual context of the vision quest, I present the autosacrificial model of the vision quest that my Blackfoot informants shared with me during my fieldwork on the Blood Indian Reserve in southwestern Alberta. In this model, dedicated resistance to sleep is an aspect of autosacrifice—that is, the offering of one's life force through suffering to a pantheistic Creator in reciprocal exchange for a spiritually empowering vision. Whether the spirits that approach questers are ancestral or zoo morphic, they are animated by *Ihstipaitapiyo'pa*, which is translated as "the source of life" but is often referred to as "Creator" in English (Mistaken Chief and Kremer 2004, 210). The autosacrificial model of the vision quest reflects a spiritual economy of gift exchange, where human-spirit relationships are mitigated through a reciprocal exchange of life force for a dream-vision, which itself has life-giving powers (for example, by enabling a medicine man to doctor others with the medicinal knowledge he received in his vision).

In my analysis of the vision quest, I apply research into the psychobiological effects of sleep deprivation to show how circadian rhythms are actively managed through ritual performance. When circadian rhythms are offset by sleep deprivation, the brain can generate what anthropologists have called "waking dreams" (Price-Williams 1992), but what psychologists refer to as "schizophrenic," "hallucinatory," or "delirious" experiences (Hobson 1999). During recovery sleep from sleep deprivation, the brain naturally strives to rebound from sleep loss by increasing the duration of sleep, especially the amount of time dreaming in REM sleep. Dreams produced from the "REM rebound effect" are reportedly more vivid and emotionally intense than normal dreams (McNamara 2008, 64–65), and waking dreams can be equally affective.

By bridging local practice and ontology of the vision quest with the science of sleep deprivation and its effects, I aim to demonstrate how cultural narratives, ascetic ritualism, and sleep deprivation can converge to generate sacred experiences while awake or sleeping. Within Blackfoot cosmology, such experiences are of the highest value, have a lasting impact on one's sense of identity, and are implicated in spirituality, sociality, and economics, among other facets of life. As a gateway to spiritually empowering experiences, sleep deprivation is also one of the means through which culture is innovated.

**Ethnographic Context**

Although I approach the vision quest in some ethnological scope, discussing accounts from geographically and linguistically distinct cultures, I center on data that I have collected during the eight years in which I have conducted intermittent fieldwork with a Blackfoot community on the Blood Indian Reserve in Alberta, Canada. The traditional territory of the Blackfoot spans from the southern boundary of Yellowstone River, Montana, to the Rocky Mountains in the west, the North Saskatchewan River in Alberta to the north, and the Sand Hills in southwestern Saskatchewan to the east (Bastien 2004, 9). There are four tribes constituting the Blackfoot Confederacy: the South Peigan; the Blackfeet; the North Peigan; and the Blood. The Blood Tribe is the largest tribe of the Blackfoot Confederacy, occupying 549.7 square miles and with an estimated population of over 10,000 (Blood Tribe-Kainai n.d.). Chief Mountain, in Montana (see Figure 9.1) is a powerful vision quest site.

Before contact was established and for a half century afterwards, the Blackfoot were hunter-gatherers. They subsisted on wild game, predominantly the American bison (Brink 2008), but also elk, deer, and moose, as well as local vegetation, including turnips and a variety of berries (Brink and Dormaar 2003; Wissler 1910, 20–52). In 1855, the South Peigan tribe, located in Montana, signed a treaty with American dignitaries; and in 1877, the North Peigan, Blackfeet, and Blood signed with Canadian officials (Lokensgard 2010, 116–117). The United States Government outlawed the practice of Native American religions from 1883 to 1934, and the Federal Government of Canada outlawed
The specific objective of this most recent fieldwork was to learn more about dream beliefs and practices, intuition, soul travel, shamanistic trance, clairvoyance and, more especially, to see if lucid dreaming—the ability to be aware that one is dreaming while dreaming (LaBerge 2007)—is an actively pursued ability. Much of my ethnographic data regarding Blackfoot beliefs and practices was collected through interviews with members of a small community on the reserve. Although I cannot, for reasons of anonymity, refer to my informants by name, description, or location, they have permitted me to share some of their words with my reading audience.

The vision quest is one of the most sacred rites, and some of my informants have performed it multiple times a year for years on end. Although not in formal positions of tribal authority, they speak from a lifetime of experience. It is, however, important to keep in mind that they do not feel comfortable being representatives of “the Blackfoot,” per se. They are persons who strive to live by the traditional ethos of their ancestors and who have shared with me their perspectives, which are informed by traditional ontology.

Sleep Deprivation and the Vision Quest

The vision quest is practiced in many variations across Native North America. Among the Blackfoot of the early twentieth century, Wissler (1912, 104) observed that “every man of consequence is supposed to have one experience in which he acquired a supernatural helper.” Hallowell (1966, 288-289) observed that among the Ojibwa of northern Manitoba, “the dream-fast was the most crucial experience of a man’s life: the personal relations he established with his pawidiganak [dream visitor] determined a great deal of his destiny as an individual.” Oral history accounts of Inuit shamanism across the Yukon, North West Territories, and Nunavut, say that “the best angakkuit [shamans] were those who never studied under others but went out on the land alone” (LaGrand and Oostern 2010, 208). There, the angakkuit would “isolate himself in a lonely place—beside an old grave, by a lake...while waiting for the significant event [spirit encounter via dream-vision]” (Eliade 2004[1964], 58).

The way the vision quest is practiced varies between cultural groups (Benedict 1922); however, vision quests have been, and, although practiced less frequently, still are, a rite of passage for adolescent boys (Hultkrantz 1987, 31; Lyon 1998[1996], 223) and girls (St. Pierre and Soldier 1995; Irwin 2001) in some Native North
American societies, especially those continuing traditional, shamanistic forms of spirituality. In the case of neophyte shamans, who must perform numerous autosacrifices a year, Irwin (1994, 110) and McCintosh (1910, 430) have reported that some have fasted for up to ten days, bringing the vision seeker literally to the brink of death to procure a dream-vision.

Lincoln (1935, 22-23), who conducted one of the pioneering psychological analyses of the vision quest, characterized ideal dream-visions, whether they arise from dream incubation rituals or spontaneous nocturnal dreams, as "culture pattern dreams." These are culturally ideal dream experiences that align with local ontologies. Although Lincoln was a psychoanalytical anthropologist, his notion of culture pattern dreams resonates with schema theory, which posits that pattern recognition develops cognitive structures called schemas, which enable us to associate certain behaviors with particular expectations (D'Andrade 1996[1995], 122-130). In terms of the vision quest, the expectation that one will have a powerful dream-vision if he or she performs a set of ritualistic observances might, in this model, be described as a schema. Enacting the ritual accordingly activates the expectation response, which generates a dream-vision that is unique but generally aligned with local narratives and desired outcomes.

More recently, Winkelman (1986, 2010) has demonstrated how phenomenal encounters of extranatural beings and worlds correlate to the structures and biological processes of the brain (see also Noll 1985). Winkelman (1986,178-181; 2010,141-144) has explored how the "inhibition of natural drives," such as the extreme exertion, pain, nutritional restrictions, sexual abstinence, and sleep deprivation practiced during the vision quest can "provoke neurochemical alterations of consciousness." Although Winkelman (2010,132-144) has discussed the potential role of sleep deprivation during the vision quest, his discussion lacks ethnographic data to substantiate his claims.

The topic of resisting the urge to sleep during a vision quest came up in a conversation I had with a Blackfoot informant who I refer to here as "John" (pseudonym), who has embarked on numerous vision quests during his life:

SD: When you’re up on the mountain [on a vision quest], do you stay awake the whole time or do you sleep at night?
J: You try your best.
SD: To stay awake?
“payment” (reciprocation) of the life force of his loved ones, which would cause them to become sick or pass away. In both cases, a quester is supposed to consciously ignore the ploys of bad spirits who arrive prematurely in the typical four-day vision quest. In the following interview segment, John shares his experience of the seductive spirit:

J: Chee, the first time or maybe it was the third time [I went on a vision quest]. To tell you the truth, I don’t know if I was up [physically awake] or sleeping. All I remember is that I was up [awake], praying with my pipe. I smoked first and then I started praying with it. When it cooled off, then I emptied and refilled it in case a spirit was to arrive. I was sitting there, meditating. I must have went to sleep because I fell and when I woke up I was still like that.

SD: Sitting?

J: No I just fell to the ground. While I was sleeping, I thought I was awake. I think it was my spirit. About this tall [makes hand gesture for height]... Chee, a really beautiful girl ran up to me, uncovered me and laid down. I just turned [away]. She was talking to me and everything. She told me, “You can have anything”—if I made love to her. I just never talked; I avoided her. She got up and left. Four times [this happened]. After the fourth time, she didn’t bother me again.

As John explained, once the bad spirits have been overcome by avoiding their temptations and the quester’s suffering acknowledged and tested by good spirits, knowledge may be given to the quester through a spiritual experience, such as a visitation from a natural-ancestral spirit.

Despite possible reasons why a person may consciously strive to resist the urge to sleep, there is also the difficulty of falling and staying asleep while sitting alone in the wilderness, exposed to the elements. Curtis told me that once, during a springtime vision quest near Chief Mountain, he had fallen asleep with only a blanket for protection. When he awoke shortly afterward, he was completely covered in snow. Clearly, the elements of snow, rain, sleet, wind, or the anxiety of sleeping alone in grizzly-bear country, miles from help, make it difficult to fall and remain asleep during such a perilous ordeal. In any case, John mentioned a couple of times in our conversations that he was unsure whether he was physically awake or asleep and dreaming. It was only in retrospect that he reasoned that his body must have been sleeping while his spirit was awake. Here, wakefulness is described, not as a physical state, but, rather, as a matter of lucidity and the dis/embodiment of the soul.

A common saying that I heard from a number of people while on the reserve reflects the perspective that it is possible for a person to travel well beyond their physical capacity: “We went to the moon long before the white man.” Eliade (1964) has likewise documented similar Inuit spirit travels. Such far-reaching ventures of the soul indicate that shamans clearly exercise volition at least some dream-vision experiences. When I asked Curtis (pseudonym), a medicine man I have known since 2004, about travelling to the moon, he responded in a way that speaks to the ecstatic quality of vision quest experiences:

C: The vision quest itself is a very sacred thing. Within those four days, your body, it comes into a trance but your spirit is in and out. It’s not really dreams they have up there. They are actually communicating with the spiritual side of life (pers. comm., June 2011).

Curtis’s description seems to indicate that during the four days, a quester’s soul intermittently detaches from and reenters the body, an experience that he distinguishes from dreams.

My informants are not the only Native North American people to use such criteria in distinguishing between what we generally discriminate between waking and dreaming. Louis Bird, a renowned Omushkego storyteller and educator, has been working with researchers from the University of Manitoba and the University of Winnipeg on the Omushkego Oral History Project (Our Voices 2012). In some of the published material from this project, Bird (2007) speaks with clear detail about the traditional dreaming practices of his people. He teaches how the Omushkego mitew (shamans) soul-travel, visit spirits, and shape-shift in dream-visions. To become a mitew, a person needs to apprentice from an early age, perhaps around five years old (Bird 2007, 90). From that point on, their grandfather would teach them how to be fearless in their dreams, by first encouraging them to sleep alone, but in the same house. After about a year of sleeping alone, the child would then be directed to sleep with his grandfather in the wilderness until he was confident enough to sleep there independently. According to Bird (2007, 91):

He must have a minimum of covering, a minimum of comfort so he could condition himself to be half asleep and half awake at the same time. In that state of mind, the dream is actually almost real—and sometimes it can be very terrifying. He had to understand that this was not real, this is a dream. Once he could control that, he could call or command any dream that he wanted.
Here we see that the difficulty of falling asleep due to discomfort is actively orchestrated. Through moderate sleep deprivation, a person is able to enter a “half-sleep” state where they can retain conscious awareness of the dream. This is comparable with Western psychological notions of lucid dreaming, but different, given the way that waking agency applied in the dream state is influenced by very different cultural values (see also Lohmann and Dahl n.d.). From the time a young mitew develops volitional dreaming abilities, he will use it to communicate with animals, especially those that he fears the most. In Bird’s (2007, 92) estimation, it takes roughly five years of dream questing to summon all the animals one fears and tame them to become one’s allies. The bond that develops between mitew children and spirits is parallel to Tahhan’s (this book) notion of “touching at depth.” Instead of an emotional and physically intimate bond of security between parent and child, the bond develops between the neophyte mitew and the forces/spirits of nature. The relationship could become so close that the mitew’s identity merges into that of the spirits he or she encounters. A dream ally could also be used as a helper. If a mitew wished to know something that only a certain kind of animal is thought to know, he would summon that animal and ask it to acquire that information (e.g., Bird 2007, 86).

The natural allies that a mitew acquired could also be sought by half-sleeping alone in locations associated with that ally. If they wished to have water as their ally, for example, they may build a nest in a tree near fast-running water, so that that sound of the water would help them have a volitional dream by encouraging half-sleep through auditory distraction and sleep deprivation (Bird 2007, 96). Alternatively, they may take a canoe out into Hudson or James Bay and anchor for the night so as to “create a dream” about the Bay itself (ibid.). On occasion, mitew would leave their homes during a thunderstorm and sleep on the ground, up in a tree, or in a raised scaffold to dream about the spirit of the thunderstorm. This has interesting parallels with Musharbash’s (this book) account of the sociality of Warlpiri sleeping arrangements. Just as they select where to sleep, based on existing or desired social relations, mitew select their dream quest locations based on existing or desired relationships with the spirit(s) of the place. In the Omushkego example, however, sociality is interspecific. After years of practice, this skill translated into waking life:

After developing a dream quest and passing into a certain state, you were then able to have a dream vision in your waking hours. You could just close your eyes and see things with your mind. And, that’s what the mitew was—the real shaman. And when you had developed the highest level of shamanism, you could actually travel far distances with your mind—leave your body behind and travel with your mind. (Bird 2007, 89–90)

Some mitew would even engage in spirit battles. This entailed one mitew creating a beast and sending it to assault another mitew, who would protect himself with a beast of his own manufacture. “Only the beasts fight—the two men just sit there with their minds fighting—and whoever is stronger is the winner. And if one of the beasts is killed, the mitew dies instantly” (Bird 2007, 105). A mitew could also enter another person’s dream to assault them and, it was thought, “Whoever was killed in that dream didn’t wake up again” (105). In all my informants’ waking or sleep dreams, they claimed to have exercised some level of volition, either in direct interactions with natural-ancestral spirits or in soul flight. This made me wonder if lucidity was a conscious or tacit aspect of such dream-visions. I posed the question of lucidity to Curtis late one night:

SD: Is there a way to know you’re dreaming?
C: What do you mean?
SD: Sometimes when you go to sleep, you experience a dream but you don’t know you’re dreaming, but then sometimes, you know it’s a dream and then you can do something. It happens to me sometimes.
C: That’s when you’re travelling at a very accurate, I mean not “accurate,” but at a very, how would I say that…a very…at a high speed. It’s like travelling in a train or a vehicle. You want to see. You see a speck of, maybe an animal or something on the road but you’re travelling too fast and you don’t have enough time to see what’s down there but you know it’s there. That’s how…that’s what it is. Your spirit is at a full speed. But then it slows down again and gives you enough time to visualize. Like a blink of an eye, then it’s gone again. It only goes so far, then it returns. By that time, you’re awake.

This description appears to illustrate a direct relationship between lucid, volitional dreaming and soul flight. There are ethical and economic systems surrounding the sharing of dream-vision experiences in most contexts, as the spiritual gifts acquired on a vision quest can benefit, but also harm others if misused. Among my informants, at least, it is considered unethical to share sacred experiences or dreams with others unless there is a well-developed interpersonal relationship or a ceremonial transfer of
knowledge. Given this, my informants did not want narratives of their dream-vision experiences to be documented. It was explained to me that sharing a dream renews its power to affect reality. Thus, nightmares, and in John’s case, a “test dream,” are shared after they are experienced, whereas sacred experiences are kept relatively secret (see also Glaskin, this book). Curtis explained:

We as Native people highly respect the spiritual connection. We go in and out of the spiritual world and we do not expose our experiences when we go into the spiritual side of life. That as well, what we see in our sleep. When our body comes to rest, our soul travels and when our soul travels, we go back into the spiritual side of life. We see and we gather information there for our well-being, for our days to come. That is a true fact. But, we do not share our dreams directly with anybody because we do respect what we brought back. We highly respect our dreams to the fullest because they are guidelines to our well-being here on earth. The way we look at it as Native people: it’s a misfortune to share your dreams with somebody else.

Ethical considerations thus mean that it is not possible for me to share any of the sacred experiences that were shared in confidence with me during my stay on the reserve. To illustrate the kinds of experiences that might occur during the vision quest, I instead draw from a native account from a Sioux medicine man named John (Fire) Lame Deer.

By his account, Lame Deer fasted in a pit on a hilltop for four days and four nights as a young man (Lame Deer and Erodes 1972, 15–16). During this time, he had a sacred experience that changed the course of his life. He describes how he heard sounds coming to him “through the darkness,” followed by animal sounds and then an “overwhelming presence” (ibid.). He sensed that there was a large bird flying around him even though he was in a cramped hole, and the bird was “trying to tell me something” (ibid.). Then,

I heard a human voice too, strange and high pitched, a voice which could not come from an ordinary living being. All at once I was way up there with the birds. The hill with the vision pit was way above everything. I could look down, even on the stars, and the moon was close to my left side. It seemed as though the earth and stars were moving below me. A voice said, “You are sacrificing yourself here to be a medicine man. In time, you will be one. You will reach other medicine men.” I was asleep yet wide awake. (Lame Deer and Erodes 1972, 15–16, emphasis added).

Lame Deer’s narrative goes on to explain how he saw his deceased great grandfather, recognizing him by the bullet wound inflicted by a white soldier, and was pleased to accept his great grandfather’s name as his own (Lame Deer and Erodes 1972, 15–16). Like many such visions, Lame Deer’s sacred experience is intensely personal, emotional, and transformative yet formulaic, insofar as his autosacrifice elicits the reciprocation of his grandfather’s spirit. We also see what seems to be the disembodiment of the soul and the lucidity of the spirit reflected in his statement, “I [my body] was asleep yet [my spirit was] wide awake.”

So far, I have considered the ontological and phenomenal aspects of the vision quest as it has been practiced by a number of distinct cultures in Native North America, and have shown that there is an economy of exchange involved in such quests. I have observed how the distinction between waking and sleeping becomes conflated in the throes of the religious experience and retrospectively this is not because those who experience this lack the capacity to discriminate between states, but because they do not appear to consider such a distinction relevant in discussing authentic perception. In recalling the experience, they speak of the spirit being lucid and becoming disembodied. From their ontological vantage point, whether the lucid disembodiment of the spirit happens while physically awake or dreaming appears to be an auxiliary concern. This echoes Glaskin’s (2011b) argument that the attentional selectivity of memory emphasizes culturally salient aspects of dreams and dismisses culturally irrelevant information to varying degrees. If I had not asked for clarification about whether or not they were physically awake, I suspect my informants would not have had the impetus to clarify this, for it is an irrelevant fact to them. In being of minimal interest, the memory of what state one was in becomes more and more unclear with the passage of time.

In the following section, I explore some of the psychobiological processes that appear to be aiding the incubation of dream-visions during the vision quest, particularly with respect to sleep deprivation. I do not, however, presume this to be the authoritative explanation of the vision quest and dream-visions. Any discussion of consciousness is deserving of multidisciplinary analyses, as it is literally the central component of human experience. Insofar as exploring the psychobiology of human language cannot reduce this or any other text to meaningfulness, exploring the psychophysiology of dream-visions does not reduce their phenomenal validity as authentic perception. To borrow Lohmann’s (this book) terminology, humanity is
a "biocultural" species. The worlds of meaning that we have developed and reside in are mediated through the brain, which is an integral component of the body. As such, its functions are altered under bodily stress—for example, those resulting from sleep deprivation. My aim is to connect the psychobiological effects of sleep deprivation with the ritual structure of the vision quest to emphasize how biology and culture synergize to produce dream-visions, which, contrary to Western psychology, are often understood as more perceptually authentic than normal waking consciousness.

Psychobiological Considerations of Sleep Deprivation

Psychologists have observed that sleep deprivation makes one more susceptible to "micro-sleeps" containing "micro-dreams" (Oswald 1962, 107) and "schizophrenic experiences" (187–189) whereas dream deprivation more specifically will provoke the REM rebound effect—a prolonged stage of REM sleep that typically correlates to vivid dreams (Hartmann 1967, 41–50; Wehr 1990, 46, 70–71). During a microsleep episode, a sleep-deprived person will instantaneously cross from waking to REM sleep and then return to a somewhat disoriented state of waking consciousness. The time spent in REM, whether a few seconds or minutes, is experienced as a dream. While sleep deprived, Slight (1924) recalled a microdream where he fell asleep on a train and heard a voice say, "Why is your face dirty?" He suddenly woke up, but in a waking state, he heard a voice reply, "Because it isn't washed." In psychological terminology, this could also be interpreted as a hypnagogic (falling asleep) hallucination turning into a hypnopompic (upon awakening) hallucination. In any case, we have an example of how sleep deprivation can induce a person to rapidly oscillate between waking and dreaming while hearing what appear to be external agents.

This microdream effect of sleep deprivation parallels Black Elk's (in Brown 1953, 58) account of the vision quest. He explains that the quester "must be alert to recognize any messenger which the Great Spirit may send to him...though none of these may speak to him at first, they are important and should be observed." This statement appears to characterize all the creatures one encounters as potential interlocutors that may speak with the quester, depending on the creature's sentiments on the humility of the autosacrifice. In the narrative, such messengers progressively intensify their interactions with the quester until the onset of the climactic dream-vision. In this example, "auditory hallucinations" arising from sleep deprivation could be comparable with progressively intensifying experiences of interspecific communication resulting from the autosacrifice of the vision quest.

In Tyler’s (1955) study of sleep deprivation, he found that 70 percent of his 350 experimental subjects reported auditory and/or visual perceptual distortions after 40 hours of sleep deprivation. On returning to his farm after an exhaustive, sleep-depriving trip, Hobson (1999[1994], 131–134) recalls going to a lean-to shed to stack kindling for a fire when all of a sudden, a "helper" appeared at his side. He was startled and fled in panic. Hobson's anecdote is reminiscent of tales I have heard of young vision questers who are terrified of their initial spirit encounters and flee their chosen site. Whether or not we refer to the experiences that the non-Native vision questers had as "hallucinatory" or authentic encounters, their impact appears to have been panic and confusion, as with Hobson. These psychological case studies of sleep deprivation, leading to progressively intensifying hallucinations, parallel the progressively intensified spirit encounters that are characteristic of the vision quest. In both cases, it seems fair to argue, such experiences arise from prolonged sleep deprivation. But what about the climactic dream-vision that characterizes the rite?

Another effect that sleep deprivation has on circadian rhythms is depriving a person of REM sleep specifically. This is also known as dream deprivation (Hartmann 1967, 41–50). Dream deprivation occurs in two ways: either by preventing a person from entering REM sleep specifically—in other words, allowing them to enter every other sleep stage except REM sleep—or by depriving them of sleep altogether. When a person is dream deprived, the brain will overcompensate for lost REM time during recovery sleep. The amount of time a person will spend in REM after being dream deprived is, therefore, markedly higher than for a person who is not dream deprived. What happens is that the brain develops "cholinergic REM debt" that has a biological need to discharge; the more the cholinergic buildup, the more the discharge during recovery sleep. Hartmann (1967, 41) notes that on the first night of sleep deprivation, subjects in the sleep lab had to be awakened four to five times to prevent them from entering REM, but after five days of dream deprivation, researchers had to awaken the subjects every twenty or thirty minutes to prevent REM. According to Hartman (1967, 44), a person who was deprived of REM for ten days would, upon falling asleep, skip NREM sleep stages and immediately enter into REM. A subject who was deprived
of sleep for 200 hours reported vivid hallucinations every 90 minutes, which is on par with the timing of our circadian sleep rhythm.

The effect of dream deprivation, known as the “REM rebound effect” (Jouvet 1999, 153), produces dreams that are often more intense, vivid, and emotionally and symbolically impactful than regular REM dreams (Hartmann 1967, 49). Considering the sleep-deprivation component of the vision quest, it would follow that the claustral dream-vision could be REM rebound dreams with the characteristic intensification of vividness and prolongation. However, they are much more than that because they are centered on personalized encounters with natural-ancestral spirits—in Lame Deer’s case, even his own grandfather. One possible psychological explanation for why the vision quest culminates to an idealistic “culture-pattern dream” (Lincoln 1935) is that a combination of one’s cultural expectations, personal dispositions, and autosuggestion converge in an REM rebound-effect dream or a waking vision, to replicate a narrative that falls within the bounds of the vision quest template but is creative enough to be individualized.

Autosuggestion or psychological priming is defined by Hobson (2001, 31) as “the biasing of networks within the brain during associative learning so that semantic meanings can be linked.” However, priming can also bias brain networks associated with dream recall and lucidity in the dream state. By simply keeping a dream journal beside one’s bed and consciously willing or praying to have a particular kind of dream just before going to sleep, a person can cue the brain to produce dreams embodying those premeditations. LaBerge and Rheingold (1991, 48–78) advocate the use of autosuggestion and priming to incubate lucid dreams. By repeating to one’s self, “I will realize I am dreaming tonight” and doing critical state tests during the day (periodically questioning whether or not one is dreaming), people can learn to lucid dream within months, some within days.

During the vision quest, psychological autosuggestion would be incessant because prayer and ritualistic acts (for example, smoking a pipe and cleansing oneself with smudge or sacred incense) are continually performed. The aspect of suffering, conceptualized as autosacrifice by my informants, enhances one’s focus on prayer and ritual in part by redirecting a person’s attention from the pangs of hunger and thirst to their purpose for questing. The more intense the suffering, therefore, the more one will focus their intention through prayer. Depriving one’s self of sleep adds another dimension to the autosuggestion by providing two primary avenues for sacred experiences to arise—namely, waking visions or REM rebound dreams.

Conclusion

Implicit in my informants’ explanations of their visionary experiences is that distinguishing whether or not these experiences occurred in a dream or waking state is incidental, compared to the content of the experience. Sleep deprivation is a means of spiritual empowerment in Native North America and perhaps elsewhere; but how it is explained by those who practice it will inevitably differ in ways that reflect local ontologies and social relations.

In keeping with the psychobiological model presented above, phenomenal dream-visions correlate with the psychobiological effects of sleep deprivation. Depriving the brain of sleep is one way to elicit waking visions and REM rebound-effect dreams that are, more than anything, real experiences with observable influence in the formation of identity, cultural ontology, ritual practice, and even the reciprocal economy of “life force.” For millennia, mastery over volition in the throes of such experiences has been a sought-after skill in many mystical and shamanistic cultures throughout the world, and the application of such abilities is the cornerstone for shamanistic healing practices.

The Native North American vision quest is an expression of cultural ontology where spirits are elicited into reciprocal relationships through the autosacrifice of one’s life force and clearly engender the documented effects of sleep deprivation. The sociocultural, metaand psychophysical are as entangled in the vision quest experience as they are in all human affairs, especially those concerning sleep. What makes the case of the vision quest captivating is the unquestionable reality of dream-vision experiences and their influence on various constituent aspects of society. It is my contention that vision quest visions neither emerge exclusively from the brain nor exclusively from external forces. Rather, they are conceived at the interface of sleep and waking life, where a matrix of individual experiences, relationships, and cultural knowledge fuse together in phenomenal realities that defy natural law, illustrating how biology, perception, and ontology can synergize to innovate culture through transformational experience.