

~ **First Place NMW 24 Nonfiction Prize (tie)** ~

**M. Garrett Bauman**  
*Snake Dreaming*

*Speculations on Human and Reptile Consciousness*

*The Associated Press recently reported that a man from Yocolt, Washington, who had captured a rattlesnake in Arizona, was showing off his new pet to friends by kissing its mouth. “I do it all the time,” he declared—just before the rattler bit his lip and nearly killed him.*

Another man, bragging on his website that he trained his cobra to spit venom more accurately by holding up pencils as targets, admitted it once spat in his eye. If not for two paramedics being present during this demonstration, he probably would have been blinded. As it was, his eye swelled shut for nearly two weeks. He discounted this as an unlucky accident and continued to hold up pencils as targets.

There is more than idiocy in these stories. A man I know drapes his fifteen-foot python that can easily choke him around his neck. I’ve been with a hiker who leaped into knee-high grass to catch a green racer and drip it from hand to hand like a Slinky toy. Sure, they seem confident and make the rest of us look weak-kneed, but these people have an unnatural glint in their eyes. They know they’re playing with fire. I don’t hate snakes. Far from it. But I have a complex relationship with them. We all do—whether we know it or not.

Once I accidentally ran over a small, ring-necked snake with a lawnmower. The mangled animal thrashed wildly, and I felt a sickening pang as I considered how to end the creature’s misery. Until I saw its head was gone. How do you kill something without a head? Smash every inch of it flat with a hammer? Chop it into mulch with the mower? Not me. Guilty and confused, I mowed another lap around the yard. The snake continued to writhe like a snapped power line. A creature without a head should not do this. A mammal would never do this. Even a beheaded chicken falls over in less than a minute.

By my third lap, the snake’s body had subsided to periodic twitches. It had a rich, scarlet-ribbed belly and was too small to harm more than insects. It had red blood like mine, felt pain as I did. It lacked hands, but it did have eyes, organs and senses. I pitied my fellow creature. Bending to pick up the remains with a stick and deposit them in the bushes, I discovered the snake’s decapitated head—a stub an inch long—lying crookedly in the grass a few feet away. I bent nearer. Without a body, blood, or heart, the jaw opened to hiss at me. There was no sound, of course, since the head had been disconnected from its lung. I backed away, and the jaw closed. I leaned nearer. The jaw mimed another hiss and revealed a pink throat. Daylight shone through the hole where it had been severed from its body. Hair rose on my arms. The head didn’t seem upset at being dead—it was placid when I moved away.

Oh, I know these were reflex reactions in cells not quite dead. But why *wasn't* it totally dead? I slid the hissing head on a shovel and laid it far from the body. Suppose they joined up again?

Such alienness frightens us. Snakes *are* different. They crawl out of their skins a half-dozen times a year. They smell through forked tongues that plug into scent receptors in their mouths to register aromas. Males have two penis-like organs called hemipenes, both of which may be used during intercourse. Anacondas mate in breeding balls of one female and a dozen males that smear sperm over her. This is not life as we know it, unless we count pornography. Snakes challenge our conception of what life is and how it is experienced.

Snakes also unsettle us because they enter the ordinary world by stealth, seem to materialize from another dimension. You hear grass swish, and a six-foot rat snake parts it. You lift mulch from your flower garden, and a brown snake underneath slithers away so fast you are not quite sure it was there. As you prepare to wade into a pond, you notice beside your bare feet the glossy head of a fat, black water snake. They are life's hidden watchers.

Once as my wife, Carol, poured potting mixture from a previously opened plastic bag into a planter, the soil moved. It was a two-foot milk snake—red, black and ivory banded. The colors flashed as it churned out of the black compost—as if the soil itself generated this shiny, brilliant creature. Carol hyperventilated. “I almost reached my hand into the bag!”

I told her the milk snake could have nipped her but usually strangles prey, and that even if it climbed her arm and twined around her neck, I assured her it could not squeeze hard enough to kill her. I slid a finger around her throat to demonstrate and received an entirely justified jab in the ribs as thanks.

Some snakes, of course, are truly dangerous. The water snakes in my pond strike aggressively and create nasty gashes that bleed freely because their saliva contains an anticoagulant. A shaken friend of mine back from a trip to Brazil had watched natives cut open a thirty-foot anaconda and remove a dead boy inside. And venomous snakes kill thousands of people each year world wide—many more than sharks, lions, tigers and bears combined. Yet we should be far more terrified of cigarettes or automobile travel if peril were the real issue. No, snakes grip our imaginations far more deeply than mere safety warrants. Gallup Polls consistently rate fear of snakes the most common fear among Americans while fear of public speaking is second, although your chance of being bitten by any kind of snake is less than one in 70,000, while the danger of being called to speak in front of the local library book club or your daughter's fifth-grade class is virtually a certainty.

About 15 million people worldwide own snakes. There are hundreds of active websites and chat rooms where people trade stories. They don't talk about safety; mostly, they worry about their snakes' appetites. The highlight for many who keep snakes is feeding live insects, amphibians and mammals to them. A friend of mine who owns a green boa trembles with delighted terror as he prepares to drop a twitching mouse into the cage. He's a gentle, sensitive man, yet his anticipation told me *this* moment was what the snake was for. A snake is for annihilation. As he strokes the mouse's head, I wonder if he identifies with it or the snake.

Venomous snake fights have replaced cockfighting and dog fighting as the *chic* battle-to-the-death sport in most of the world. Exotic kraits and black mambas lay their lives on the line for their mostly male owners, for killing, not winning, seems to be the point of these contests. But it is not just obsessed reptile-lovers who have connections to snakes. Although the average person seldom sees snakes, they are the most common animal in human dreams—surveys done over a half century show that about half of us dream of snakes. They have been said to represent death, temptation, evil, and/or sexuality. Freud believed they were phallic; other analysts say they represent the devouring female orifice or the violent sexuality we simultaneously desire and loathe. In India it is said that a serpent sleeps coiled at the base of our spines; our sexuality

“awakens” the snake, which travels to our brain to offer us enlightenment. Serpents in our dreams may also symbolize rebirth (shedding skin has even been likened to Christ’s resurrection).

It is no wonder, then, that most religions have significant snake myths and symbols. In ancient Greece and Rome, serpents were considered sharp-eyed dwellers of the underworld who could prophesy and thus were often given honored places in temples. The Chinese dragon—a flying reptile—symbolizes vitality. In Asia snakes in myth often appear as teachers. They teach silence, inner control, watching and how to flow around obstacles instead of confronting them. In Asia speaking snakes advise humans about how to deal with human problems. They know secrets we don’t.

Such positive symbolism gradually faded in the West with Christian portrayals of the snake as the calculating destroyer of souls, the flesh Satan found most akin to his spirit. George, England’s patron saint, is celebrated for slaying a dragon. St. Patrick is praised for driving the snakes from Ireland, although the only snakes he attacked were symbolic ones—nonbelievers. Both eastern and western mythologies identify snakes with fire, guile, and intelligence, and in both cultures snakes are slaughtered.

I like these ideas, but there is a more interesting—and threatening—explanation for why snakes provoke such strong reactions, first suggested in Carl Sagan’s book on the evolution of human intelligence, *The Dragons of Eden*. Sagan based part of his theory on the work of Paul MacLean who proposed that our three-part brain mirrors its evolution over the ages in a “microgenesis.” MacLean’s work continues today in research by such scientists as Spanish neurologist Ruben Rial. The core brain of all higher animals—the one that developed first in evolution—is the reptile brain or R-complex. The second brain, first discovered by French scientist Paul Broca in 1878, is the limbic lobe, which developed on top of the R-complex as birds and primitive mammals evolved. Humankind’s advanced neo cortex—both right and left hemispheres—developed atop these two as evolution continued, but the reptile core is still with us.

Sagan believed most of our disturbing dreams are the safe, partial release—when our higher brain is resting—of a reptilian worldview that we suppress during the day. Our reaction to snakes, then, may be a recognition of the cold, emotionless, brutal core inside ourselves that our higher reason tries to control. We reenact within ourselves the evolutionary struggle between reptile and mammal. The R-complex is ritualized, selfish, paranoid; the limbic introduced feelings and altruism (e.g. feeding your offspring instead of eating them); the neo cortex added logic, language, abstract thinking and creativity. Humanity’s divided, conflicted self may have its origins in our divided brains. Our mammalian sensitivity, altruism and creativity daily battle our reptilian violent rages, greed and dark ritualism. The reptile brain has not withered away and cannot be fully exorcized because—like it or not—it still controls basic life support functions—breathing, digestion, sensory input and part of our sexuality. The reptile spirit lives on with these functions. It horrifies us—and it is us.

As a child I remember coming upon a mass of newborn snakes on a lawn. Dozens wriggled in a pile ten feet from me, but in a rush of paranoia I felt *surrounded* by them. The image haunted my dreams for weeks. In those dreams I moved inexorably nearer the snakes—gliding in a kind of hypnotic trance—even though I longed passionately to run away. I felt compelled to touch them or let them crawl on me, and was saved only by waking. In this confrontation with vestiges of the reptile within, I was helpless to refuse—terrified yet passively resigned. Snake dancers—Hopi, Haitian, Serbian, Hindu, Vietnamese—who twirl snakes in a mystical frenzy, embrace this primal side of themselves, find release and acceptance of the repressed reptile. But lest we dismiss these dancers as “primitives” from third-world cultures, in the United States the Cult of the Great Serpent celebrates Snake Day June 7 by writhing naked with snakes. In the southern

hemisphere, should you be traveling and wish to participate, the Cult celebrates on Dec. 7. The major difference from primitive snake cults is that the twenty-first century one has a website.

I recently watched a half-dozen reptile programs on television. They're remarkably similar. In a typical show, under the guise of learning something about snake behavior, a half-dozen scientists splash through swamps to catch and tease snakes. Afterward a narrator "interprets" the significance of what they learned for science, but the real meaning of the programs occurs when the men and women communally hold the snake—muscular, sensuous and draped over their skin. The cameras dwell lovingly on these moments. It is the feral, deadly, inner self they embrace, barely controlled by a forefinger and thumb around the snake's head.

On other shows, wacky nature showmen seeking reptile "adventures" repeat the ritual. They creep nearer and nearer a deadly snake so the viewers have the sense I had in my own dream of helpless insanity. "Fool! Fool! Go back!" my mammal brain screams as the camera pulls us inexorably closer. Wild-eyed, the man reaches into a dark hole and drags out a rattler or mamba by the tail. As the snake strikes, the man leaps back so the fangs just miss, then wrestles with the beast and holds it up to be seen. The scientists and the showmen are our surrogates, dragging our deadly, reptilian selves out of the darkness. We are repelled and mesmerized at this reenactment of our inner psychic drama.

How else can we explain brutal orgies of herpeticide, mostly against rattlesnakes and copperheads. With sticks, guns and the occasional flamethrower, the mammals attack snake-dens when they gather to mate or hibernate. They pile up thousands of reptile corpses, make belts and headbands of the skin, and eat the flesh. Does such butchery exterminate the hissing in their human brains—or embrace it? From an emotional standpoint, these massacres differ only marginally from the scientists who hunt and measure snakes, milk their venom and draw their blood. But what of those who scoff at snake myths and dreams as empty superstition, as irrational demonizing of a creature that simply reacts to stimuli in a defined logical way? Are these people dispassionate and clearheaded—or are they kidding themselves?

A few years ago, my wife found a yellow racer in the garden with a toad in its mouth. The snake contracted its muscles to work the toad farther in. Carol sprayed water from the hose at them until the snake lost its grip, and the toad escaped. She celebrated, but despite myself, I pitied the hungry snake. Let's try an imaging game. Imagine yourself as a snake. Embrace the reptile memory slithering through the algae-coated swamps of your brain. Reverse evolution and regress like a video on rewind back through millennia. Your hands and feet atrophy and disappear into your trunk. Scales close over your soft, sensitive skin and translucent scales cover your eyes. Sink to the ground and catch moving food in your mouth.

How else does it feel to be a snake? With no neo cortex, you cannot retain thoughts or images. Snakes are notoriously poor learners, far worse at mazes than mice. For them, each day—each hour, each minute perhaps—is dissociated from the next. It is as if you awaken each moment and all your previous life is a vague, fading dream. This is MacLean and Sagan's best guess at what snake consciousness might be. Snake consciousness when awake eerily resembles our dream state. In fact, Sagan says our R-complex, unleashed at night when the high brain functions go dormant to recharge, creates many of our dreams.

We believe the most far-fetched things in dreams. While the higher brain sleeps, no logic represses the reptilian paranoia that hears gremlins clawing at the gates. Snakes never doubt—the whisper of skepticism comes from our little neo cortex watcher, who sometimes in humans' most terrifying nightmares stirs itself to see what stupidity its irrational cousin is cooking up. The stirring neo cortex is the voice that tells us while still asleep, "Oh, it's only a dream." The vulnerability and paranoid illogic of our dream world suggest how snakes perceive all existence. We "forget" most dreams because, upon reawakening, our neo cortex censors the drivel produced while it was dormant and focuses us on the real world.

Snakes have no limbic system to allow them to feel empathy for others. Curiously, this state occurs in our dreams too. When our limbic brain goes into “quiet mode,” we calmly accept the most horrible or fantastic events without them hurting us. Sometimes we are even indifferent to our own fate. “Look how fast that truck is coming toward me. Oh, I’m going to die. Mmm.” Because our neo cortex is resting, language ability is depressed in our dreams. Images are vivid, but we cannot name things or people we “know.” We feel separated from ourselves as if by a thick gauze wall. And indeed we are. We cannot explain ourselves or even say what our name or address is—because we are the other self then, the one who has not mastered language. In our reptile dream life we live in a world of disconnected moments and images such as the mentally ill often experience—strangely ritualistic and stark, filled with odd fears and aggressions that arise for no particular reason.

When I watched interviews with serial killers and child molesters and when I counseled jailed prisoners, what always struck me was their inability to empathize. In therapy they are repeatedly told what their victims suffered, what the survivors suffer, but they don’t understand. They grope through a surreal world in which feeling is inaccessible to them. They know other people feel something that they do not. Even when they say the right words, it’s done mechanically—and you know the snake brain has won a victory or the neo cortex has failed. It is no accident, I think, that mental illnesses such as obsessive compulsive disorder, post traumatic stress disorder and panic disorder have been traced to the R-complex part of the brain.

The R-complex, according to MacLean, is dominated by the mechanical, the limbic by the emotional, and the neo cortex by the rational. He suggested that each part has a distinct *personality* with its own sense of space and time, its own style of intelligence, its own “attitude.” The significance of this to me is that it challenges our notion of selfness. It explains why we often do not feel like one person. Humans’ limbic and neo cortex regions have bonded fairly well, with lots of solid neurological connections between them. We also speak of “right brain” and “left brain” thinking, although these halves of our neo cortex are the best-integrated parts of our brain, and each can perform functions for the other half if it is damaged. But the R-complex, forever repeating its patterns mechanically—heartbeat, breathing, digestion—has been isolated and chained to its monotonous tasks, so the bounding neo cortex could scurry up evolution’s ladder and learn wonderful things and play with feelings and creativity. The neo cortex evolved so rapidly, there are only skimpy, tenuous connections between our reptile brain and the higher lobes. The snake is loose inside us—and when the neo cortex rests at night, it crawls into our dreams to have its say. Which of these brains is us? Who of us is *not* schizophrenic?

Snakes scare me in lots of ways.

In human dreams—and perhaps in snakes’ waking lives—motives seem alien and emotionless. In dreams, our flesh disobeys us, becoming paralyzed despite our desire to defend ourselves or run. For brief moments we can follow what is happening, then magical events intrude. For the water snakes this happens when I appear at the pond and loom over them as they soak up sun beside their frog paradise. There are two big ones, one black, one brown, I see regularly. I call them Adam and Eve. To them I am the unnamable intruder, the sudden, unexplained shadow that blocks the sun. *I* spook *them*. They slither into the water in a daze, then turn to poke heads above the surface to stare at me. I can almost hear them thinking, what *is* that big thing? Will it eat me, or should I try to eat it? So far, they have decided to swim away into the weeds, but I wonder if some day they will be curious about what new knowledge I might offer them. I am the devil of reason and purpose in their innocent, confused world. I am the thing they might be, could their brains stretch into that other dimension.

Since ancient times, people have noticed the calculating demeanor of serpents. Snakes pay attention. Perhaps they have an urge to figure things out, but lack the mental tools to do it. Yet oddly enough, snakes have one evolutionary advantage over humans. They have an unrestricted

ability to grow new brain cells throughout their lives, which suggests a greater potential capacity for learning than humans, who grow new brain cells at a much-restricted rate. Researchers like David Holtzman, formerly at the University of Rochester, has found that young snakes can learn faster than people previously thought, and he teaches them to adapt to stimuli rather than simply react mechanically. He has been especially successful at teaching snakes to escape mazes and traps. Will they be able to pass down this ability to learn at higher levels in ensuing generations? We know reptiles had the capacity for the great leap forward that led to mammals and humans in millennia past. Yet evolution has not gifted them with higher brains. Do they sense their innate, unfulfilled capacity?

This is purely subjective, but I sense a frustrated arrogance in snakes. They think they deserve to be the “lords of life” as D. H. Lawrence once described them. I’m glad they don’t have the hands, concentration and memory to make tools. I wish Holtzman would not teach them new tricks. They have enough already. Humans—despite our supposed empathy and altruism—have plenty of uncontrolled, heartless brutality inside us, and I’d be happier if we had a tighter leash on that. Holtzman is scarcely alone. Snake farms and snake sperm banks are rapidly breeding “improved” snakes for commercial purposes—brighter, larger, faster, and more skilled in fighting. Humans are literally boosting snakes up evolution’s ladder. Today, researchers are experimenting with gene-splicing—giving snakes chromosome implants from mammals—that might accelerate the process. How about a coral snake with hands? Or a furry, warm-blooded rattlesnake that does not need to hibernate? A cobra that can think?

An Indian myth may be instructive. In it, a ravenous snake demon eats everything in the world as it grows bigger and bigger. When all is devoured, its appetite is still unsatisfied, so it eats the world itself. Then it complains to the god Shiva that there is nothing left to eat. Shiva suggests, “Why not eat yourself?” and the demon does until it disappears into the void of its own maw. We are fascinated by snakes’ ability to swallow things larger than themselves—for our species has such *hubris* too. As human technology races ahead of our emotional evolution, we are far more likely than snakes to devour the world and ourselves. Yet the snake is a useful symbol. The snake is an annihilating hole into which things vanish. Its terror is nothingness, and the terror of our three-part brain is akin to it. Each of us is not a singular “I,” not even a “we” composed of sibling selves, but simply an illusion, a void that swallows itself. Our personality cannot be pinpointed. If “I” see by night through reptile eyes and by day through mammal eyes, if my brain, like a computer is simply a series of windows now open, now closed, where is this “I?” Can a self be simply the platform on which these images run?

One spring day, I heard rustling in the woods. I waited quietly, and soon prey and predator passed within a foot of me. First came a tan wood frog with its distinctive black facemask. It stretched when it leaped, hands grasping at the air ahead for extra inches. It skidded sideways, gathered its legs and sprang again and again. Behind it came a big garter snake with a yellow stripe. I waved to scare away the snake, but it was so intent on the frog that it ignored me. I followed, so the three of us made an evolutionary procession of sorts.

I watched from high over them with the broad perspective of my evolutionary advantage. When the frog changed directions, the snake paused, raised its head above the grass and rotated it like a periscope, sniffing with a flicking red tongue, its mouth in a stony grin. As it spotted the frog, the garter snake wagged its tail—a slow, satisfied wag that made me shiver. I wanted it to be colder, more mechanical. I wanted no signs that it had even a trace of the higher brains, no hint of emotions. Keep in mind this was a country snake, not educated in university labs or improved with gene splicing. The chase went around trees and bushes, the snake showing a dog-like joy in hunting.

Finally, the wood frog made for a fallen log, squeezed under it, then from the other side leaped on top of the log, and squatted motionlessly behind a knob. It was worthy of a trick from

*Last of the Mohicans*. I cheered for it. I hoped the snake would slither under and keep going. When it did disappear underneath, I winked conspiratorially at the frog. I felt happy, even reassured somehow. I scooped up the wood frog and carried it twenty yards away. It lay placid and cool in my palm and—surprisingly—did not urinate on me.

Quickly returning to the log, I saw no sign of the snake. Would it slither away in dejection? I waited. Nothing. I peeked under. It wasn't there. Puzzled, I rolled the log. The snake's tail trailed from a rot hole in the wood. As the log rolled all the way over, the rest of the snake spilled out. Halfway into its mouth was a green frog. The garter snake's jaws were achingly distended like slip-joint pliers compressing the bulging frog, and the reptile thrashed to gain greater purchase on the victim. The frog kicked a few times, but that only helped propel it deeper into the throat. This calmed the snake, content to wait for the frog to kick itself into oblivion. The snake spotted me at last and raised its head high, defiantly grasping the frog like a trophy. "This is mine!" it seemed to say. "I've had enough of your intrusions! Get out of my world!" The snake's eyes seemed to blaze with emotion researchers say it does not have. By now only the frog's legs remained unswallowed, hanging from the corners of the snake's mouth like a giant mustache.

The snake must have picked up the new scent under the log and poked into the green frog's hole with gaping jaws. The frog's secret bunker became the perfect trap. No exit. The snake's maw filled the opening, and I shivered picturing that approaching pink, cottony void stretching from floor to roof to take my own head into itself. The mouth slid closer. For the snake is always waiting for opportunity. I considered rescuing the green frog as my wife had the toad, but this one was down the throat so far that I would have to kill the snake to do it. I had a hatchet in the barn, but did not get it. In a kind of trance—a kind of dream paralysis—I waited in horrible, helpless elation for the frog's feet to disappear.