It cannot be taken for granted that a patient will come through better—or even alive...The moment made me want to be a surgeon—not to be an amateur handed the knife for a brief moment, but someone with the confidence to proceed as if it were routine.

Gawande did pursue a career in surgery, and as a senior surgical resident wrote *Complications*, which elegantly probes medicine at the edges of technology, medicine as an uncertain art. Through a series of loosely related essays, he explores how the surgeon is able to cut, excise, and suture despite the uncertainties that underlie each individual case. He tends to focus on surgical themes, but they highlight issues facing every branch of medicine. I first read many of his essays in the *New Yorker*. The issues they presented were so pertinent to those I faced in my own medical training that I was pleased to have the texts collected. I was only mildly disappointed that so little of the material was new.

Gawande unflinchingly confronts the deepest fears I nursed during my training. The strength and, indeed, the beauty of each essay is the rigorous academic approach he uses to illuminate medical behavior when scientific data are incomplete—the point beyond which intuition and experience take over to achieve a final course of action. His approach enables him to distance himself from paralyzing anxiety and to dissect the modifiable risks. (Each chapter includes a summary, readily accessible to nonmedical readers, of the relevant medical material.) Bolstered by his analysis, he can approach his next patient with fresh insight and enthusiasm. And where most physicians

**"Sometimes wrong; never in doubt."** Atul Gawande quotes this saying about surgeons in the opening pages of *Complications: A Surgeon's Notes on an Imperfect Science*. The assessment is often intended derisively, but to Gawande, a medical student when he first heard it, "this seemed to me their strength. Every day, surgeons are faced with uncertainties...
hate to talk about medical errors—each of us recognizing how easily we could be at fault—Gawande demonstrates how physicians can combat error and use it to their advantage. By voicing our fears openly, he reins in the anxiety: “[I]t isn’t reasonable to ask that we achieve perfection. What is reasonable is to ask that we never cease to aim for it.”

Gawande presents individuals to introduce specific issues. Vincent Caselli, for example, chose gastric bypass surgery in a last-ditch effort to treat the extreme obesity that prevented him from working, attending his daughter’s wedding, or even walking upstairs at home. The vignettes vividly remind the reader of the patients who are, ultimately, the heart of medical care and the beneficiaries of Gawande’s investigation. Gawande has kept in touch with many of them for months and even years. He is interested not in how their particular surgical procedure is holding up, but in how their experience with illness and operation has affected their lives. In the hospital, surgeons often carry a reputation for being superficial in their attention to their patients as individuals. “Sometimes wrong, never in doubt” can imply a cocky self-reliance that disregards the humanity of the patient in question. Gawande is not that kind of surgeon.

He divides his book into three broad sections: “Fallibility,” “Mystery,” and “Uncertainty.” I found the opening section, “Fallibility,” the most compelling. In the first chapter, Gawande lays bare the uncomfortable details of medical education that physicians-in-training encounter daily. To gain competence, doctors must practice their newfound skills under supervision. It isn’t reasonable to ask that we achieve perfection. What is reasonable is to ask that we never cease to aim for it.”
Calling Caleb Cheeshahteaumuck

In the passage that follows from “First Fruits,” one of the seven short stories that, with five personal histories, constitute Roofwalker (Milkweed Editions, $20), the narrator, Georgiana, a Native American freshman at Harvard, is trying to get together with Caleb Cheeshahteaumuck, a Wampanoag who attended Harvard’s Indian College, learned Latin, Greek, and Hebrew, graduated in 1665, and died of consumption a year later. The author is Susan Power ’83, J.D. ’86, a Standing Rock Sioux.

As I head for class each morning, I find myself going out of my way, wandering behind Matthews Hall to that spot where the Indian College once stood. I must look like everyone else as I stand here, wearing jeans, a sweater, and a backpack over one shoulder, but I have uncommon expectations. I am looking for Caleb Cheeshahteaumuck. If my father were here, we would have spotted him by now, perhaps seated high in the air towards the crown of the sycamore tree, or stretched on his side in the dense grass, his suit sparkling with dewdrops.

I am haunted by this young man who has been dead for over 300 years, or, more accurately, I wish to be haunted by him. I have developed a plan to flush him out that consists of tempting him with a small package of Grandma’s Old-Fashioned Molasses Cookies, which are a special favorite of my father’s. I open the bag to release the spicy aroma, and place it in a cradle of branches near the base of a thick bush.

“An offering,” I say.

I was taught to believe that time is not a linear stream, but a hoop spinning toward the crown of the sycamore tree, or stretched on his side in the dense grass, his suit sparkling with dewdrops.

I take one last look before leaving for class.

“Kokepe sni ye,” I tell the empty air. Don’t be afraid. And then I whisper, “It’s me, your Dakota friend,” just in case Caleb Cheeshahteaumuck has been fooled by Allegra’s handiwork into thinking I am a wasiun—a white girl leaving cookies for the squirrels.
his own failure to anticipate a problem nearly cost a woman her life.

Shortly after Louise Williams, the drunken victim of a car accident, was brought to the emergency department unconscious, her oxygen level began to fall, requiring the physicians to insert a breathing tube into her trachea. Yet the intubation was complicated. The emergency physician had already suctioned more than a cup of blood from the back of her throat, which, Gawande notes, should have been his first clue that trouble was brewing. When he realized that he had to do an emergency tracheostomy—an incision in the neck to gain direct access to the windpipe—he fumbled. Louise survived, but Gawande “felt a sense of shame like a burning ulcer. This was not guilt: guilt is what you feel when you have done something wrong. What I felt was shame: I was what was wrong.”

I felt sick to my stomach as the story unfolded, and when I put down the book, I vowed never to read it at bedtime again. As a physician, making the wrong decision or—even worse—making the right decision but being unable to act on it, as happened to Gawande, is by far my most overwhelming fear. Gawande notes that fear, if unchecked, can be paralyzing—but neither can it be entirely laid aside. Despite consulting another physician before making a treatment decision, or taking a few moments to more carefully document why I opted for a particular therapy, I know I make many, mostly trivial, mistakes every day. Most are caught, some are avoidable, some are hard to anticipate. What makes Gawande’s story so chilling for me and, I imagine, for many physicians, is that he appears to be a good doctor trying to do the right thing.

Gawande takes this wrenching story and transforms the terrifying, out-of-control feeling of the experience into a thoughtful exploration of how to improve the rate of preventable medical errors. He writes that “everything we’ve learned in the past two decades...has yielded the same insights: not only do all human beings err, but they err frequently and in predictable, patterned ways. And systems that do not adjust for these realities can end up exacerbating rather than eliminating error.” He lauds the surgical tradition of the mandatory Morbidity and Mortality Conference, where the staff meet to review surgical complications, thereby enabling surgeons to admit to errors and to learn from them.

In “Mystery,” the book’s middle section, Gawande presents problems—pain, nausea, pathological blushing—that medicine doesn’t understand very well. The essays enlighten, but lack the unflinching poignancy of the opening chapters. The last section, “Uncertainty,” deals with how physicians cope with the unknowable and the uncontrollable in medicine. One essay describes watching patients make poor choices about treatment, often in spite of extensive counseling. Gawande wonders if physicians should be more forceful in guiding patients to the choice the doctors feel is most in the patients’ interest: “[as] the field grows ever more complex and technological, the real task isn’t to banish paternalism; the real task is to preserve kindness.”

In the final chapter, Gawande regains the power of his opening essays. He writes about moments when that incalculable human factor responsible for the errors, misjudgments, and oversights dissected in the early chapters results in intuitive choices that save lives. Asked to evaluate Eleanor Bratton, a young woman with an infected leg, Gawande couldn’t help considering as a possible diagnosis a devastating flesh-eating bacterial infection in its earliest stages. He fully expected to take her to the operating room, open the leg, and discover that the problem was a severe but straightforward case of skin infection—but the small doubt in his mind was worth the surgical risks. Then the biopsy revealed the dead tissue indicating the presence of the flesh-eating bacteria. He and his supervising colleague together made a string of difficult decisions, choosing not to amputate the infected leg (knowing many colleagues might have chosen differently) and gambling on their instinct that her young, healthy body would be able to stave off an infection caught in its earliest stages. When they made the choices, Gawande was not entirely sure they had done the right thing. But Eleanor proved their instincts accurate, surviving an infection that carries a 40 percent mortality rate.

“For however many times our judgment may fail us,” writes Gawande, “we each have our great improbable save.” As physicians, we will all have our Louise Williamses—almost suffocating under our hands—but we will also have our Eleanor Brattones. The dilemma is that we can’t have one without the other. Somehow we must learn from the former, gaining the experience and the confidence to swashbuckling rescuers in the face of uncertainty. As often as human nature thwarts us, sometimes it is our greatest strength. Gawande’s redeeming conclusion allows me to lay the book down with a light heart. He has plumbed my deepest fears as a physician and left me with hope.

Howard Murphy hopes someone can supply an author and full text for the following fragment, which stumped BBC Radio’s Quote…Unquote: “I am sick of roofs and floors./Naught will heal me but to roam./Open wide the forest doors...”

Stetson Ward seeks the provenance of a story (perhaps true) about a World War I soldier who contracted tuberculosis and then broke off his engagement by telling his fiancée he was jilting her for another woman. The false story was meant to spare her from sorrow at his death, releasing her to find another love.

“large house and barn” (September-October). John Price was first to suggest as a source the fourth paragraph of the first chapter of Walden. Thoreau writes: “How many a poor immortal soul have I met well nigh crushed and smothered under its load...pushing before it a barn...and 100 acres of land...” Judith Stetson noted that he adds later, “And when the farmer has got his house, ..[it may] be the house that has got him.”

Send inquiries and answers to “Chapter and Verse,” Harvard Magazine, 7 Ware Street, Cambridge 02138.

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