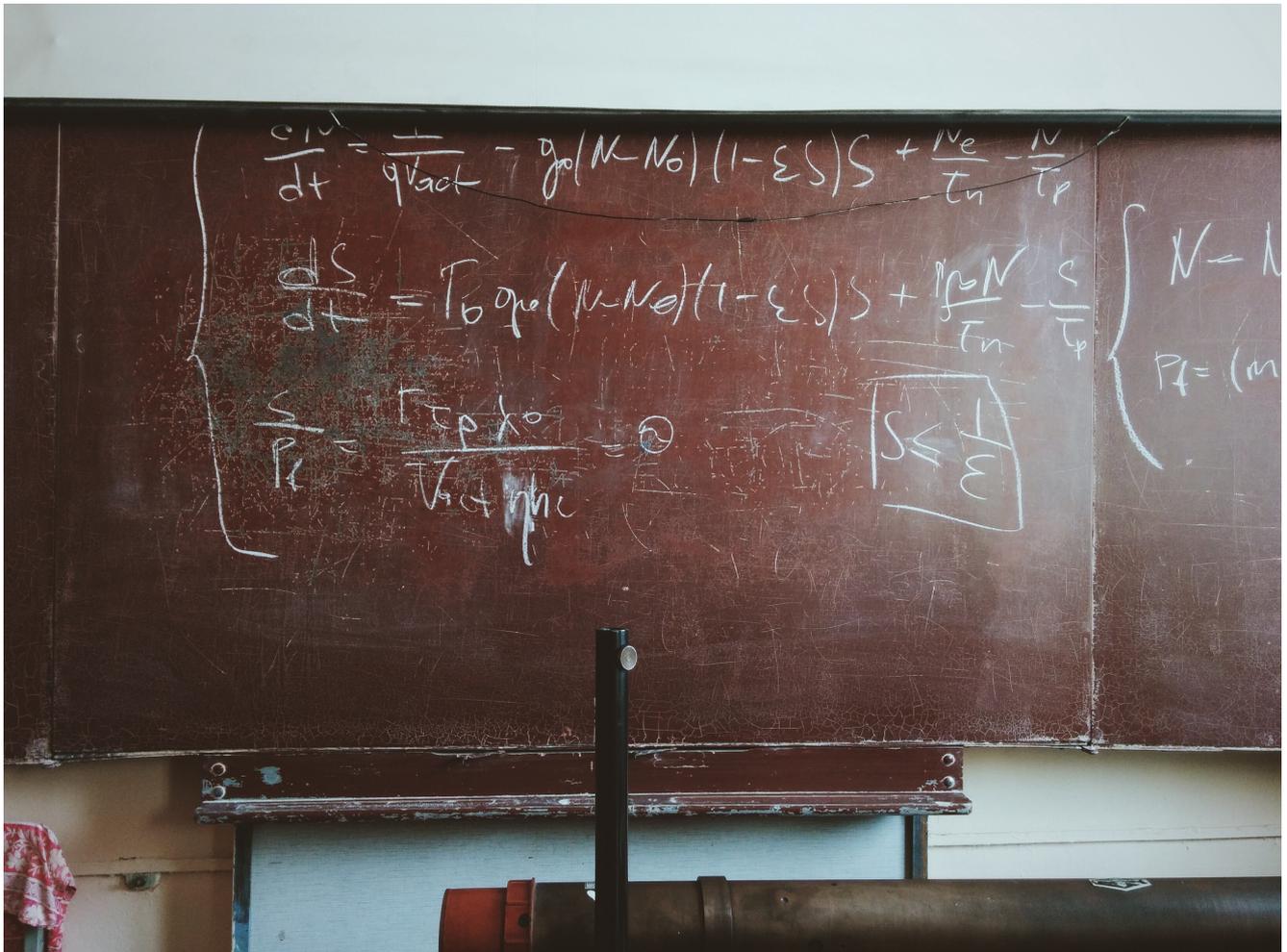


New Nonfiction by I.S. Berry: "Math and Other Things I Learned from War"



Numbers don't lie, they say. $2 + 2 = 4$. No matter how you rearrange it; no matter how you solve it. Turn it into subtraction ($4 - 2 = 2$), and it still works. Math's rules are inviolable, unyielding. Particular inputs yield fixed outputs. Even, say, in cases of absolute value, where more than one answer is possible, the results are still finite and consistent.

Then again, numbers can be irrational. Complex. The existence of a mean requires that data fall above or below it. There are exceptions to rules (the commutative property doesn't apply to

division); theorems, you realize, rest on assumptions. You start to see that numbers, perhaps, aren't as honest as they appear. Sometimes they trick you. Sometimes they betray you.

Twelve feet was how far the mortar had plunged into the ground of the CIA compound. People said the thud shook every trailer. I was on the other side of the Green Zone and heard about it on my radio. Lucky thing I'd been gone: the mortar had landed behind the Morale, Welfare, and Recreation building, only twenty feet from my trailer, along the path I walked to work every morning. A dud, thankfully: no detonation; no injuries. By the time I returned, workers had buried the unexploded ordnance, blended new soil with the old so thoroughly I could barely see the point of impact. Invisible, as though the thing had never existed—a null set, an imaginary number.

The mortar landing in the neighboring compound a few weeks earlier should've been a warning. But somehow an incursion into our own house seemed different. There were rules, hard-and-fast—of physics, probability—that all but guaranteed something like this wouldn't happen. That assured us the chances were almost nil.

In November 2004, Iraq was many things: the location of my first tour as a CIA counterterrorist case officer; home to the confluence of the Tigris and Euphrates; safe haven for terrorist leader Abu Musab al-Zarqawi; a sweltering, palm-freckled desert; the most dangerous place on earth. By November 2004, more than 800 American soldiers had been killed in Operation Iraqi Freedom.

At the CIA station in Baghdad, we were trying to track down Zarqawi, but the war kept getting in our way. We couldn't conduct source meetings in the Red Zone. Couldn't do the usual things: eavesdrop in cafés, schmooze on cocktail circuits,

dine at strategic restaurants. Couldn't even leave the Green Zone to walk the streets. We were trapped in a fragile green bottle. Five attacks a day. Ten. Twenty. Some in daylight; some in darkness. Some aimed at the center of the Green Zone; some, the fringes. Some victimless; some fatal. An almost infinite number of variables.

Iraq was the place I learned to do math.

Like an alarm, mortar rush hour began most mornings at 0700. I'd open my eyes a fraction, watch the neon green numbers on my small digital clock, guess the seconds before another mortar would launch. Outside, "Big Brother"—the centralized public address system—would broadcast unintelligible instructions from the neighboring U.S. embassy compound. Sometimes—depending on my ratio of fear to exhaustion—I'd drag myself out of bed and run to the bunker outside my trailer. I knew by heart the graffiti inside its concrete slab walls: slogans and drawings that laughed at war, taunted war, ran from war, tried to make sense of war.

We'd heard stories—of the State Department officer reading in his trailer when an inert rocket pierced the wall; of the Gurkhas, huddled inside a building, killed by a mortar. One station officer confessed that he slept on the bottom bunk, wore body armor to bed, and drank himself to sleep. Others talked of spending the night at the CIA station, which had a sturdy roof and walls. I was arriving at work earlier and staying later.

But amid the hailstorm, nothing had ever struck our compound—which surely meant that nothing could. After all, what good is data if it can't predict outcomes, offer certainty?

There were rules, I'd learned. Mortar attacks were preceded by audible launches (deceptively gentle, like hiccups). Rockets offered little warning—except a high-pitched whistle on close ones—but produced deafening explosions. Car bombs were deeper, more sonorous, lasted longer. If you could hear but not feel a detonation, it was remote. When the ground shook and pebbles sprinkled down, you ran for cover.

Insurgents launched more attacks in warm weather, some at the station postulated. But others countered that wintry air prompted action. Daylight offered insurgents good target visibility and freedom from curfew, but night provided cover. During the occasional rain shower, U.S. military helos couldn't fly and deter attacks. But insurgents' trucks and grip stocks would get stuck in the mud. Everything boiled down to probabilities.

I was doing my own calculations. I didn't condition my hair in the morning: five fewer minutes in the shower meant five fewer minutes under my flimsy trailer roof. Didn't hit the snooze button. It was, we all knew, just a question of out-calculating the enemy: Master the math and you'd be fine.

Sometimes I chatted about the mortars and rockets with the Military Police on our compound. A few shrapnel-resistant guard booths offered shelter, but the MPs spent most of their time outside, unprotected.

"Shoots," my favorite MP dismissed the threat. "We been noticin' them mortars always go over our compound. Comin' from the other side of Haifa Street. We ain't in their trajectory. Ain't got nuthin' to worry about."

Everyone had a rule. A failsafe equation. Until the dud mortar landed in our compound.

Some four months into my tour, and the sky was gem-blue,

translucent. Usually, the air was choked with dust, char, and smoke from explosions and burn pits; at night, stars pulsed through the thick haze like small dying hearts. You never got a sky so rich, so blue.

I'd gone for a long jog. Stripped off my running clothes and turned on the shower. Iraq's first democratic elections had triggered a fleeting and tenuous peace, and the mortars and rockets had temporarily receded, a bully nursing his wounds. The sky was quiet. I didn't know how long it would last, but for now I could condition my hair.

I dropped the bar of soap. My left hand returned to my right breast. A lump. Hard, palpable, so close to the skin it was almost visible.

Naked, dripping wet, I walked to my bed, probed the small mass. The statistics, the calculations, began. I was too young. No one in my family had ever had breast cancer. I didn't smoke. Most lumps were nothing. Worst case scenario, breast cancer had a high cure rate. The odds were all in my favor. Math, trusty friend: don't fail me this time. Like you did with the mortar.

I palpated my breast and stared at my trailer's thin ceiling. Pairs of Blackhawks descended toward Landing Zone Washington. I wondered if I'd miss their sound when I left. They'd keep coming and going long after a new tenant occupied my small trailer, after I was gone.

On my next home leave, I had a biopsy. The lump was benign. The math hadn't failed me. But I knew the law of averages: eventually, you're bound to land above or below the mean.

1,900? 1,950? How many soldiers had been killed? My yearlong tour was drawing to a close, and the number plagued me. More than double the count when I'd arrived. It couldn't break

2,000 before I left Iraq, I decided: this was my hard-and-fast rule. Every day, like a fanatical horoscope reader, I checked the death count.

One month left in Baghdad and days slowed down, passed in paralyzed motion, as though they were slogging through mud. The math wasn't adding up; 24 hours was longer than 24 hours. Thirty days became sixty, became a hundred, became infinity.

October 25, 2005. Number of American soldiers killed in Iraq: 2,000.

I left a few weeks later.

A week? A month gone by? Writer Graham Greene said, "When you escape to a desert, the silence shouts in your ear." So it was for me. When I escaped Baghdad, the silence was deafening. Leaving war didn't necessarily mean that war had left me, I found.

These days, it's almost clichéd to recite the litany of stumbling blocks upon a return to civilian life—traffic jams, loud noises, big crowds. Some days, just getting out of bed. (Does anyone, in fact, come back from war without these stories?) Often, I stared out the window for hours at a time. Days fell through holes, disappeared like the mortar under the ground, as though they'd never existed.

I moved from my cramped condo in Washington, D.C. to a more spacious, quieter house in the suburbs. It was near Reagan National Airport. At night, sleeping on a mattress on the floor, I could hear airplanes descending. I thanked God they weren't Blackhawks and at the same time wished they were.

It was a degree of luck, I knew, that I'd survived. For others, the math hadn't worked out so well.

I volunteered at Walter Reed Hospital. I delivered care packages to injured and ailing soldiers. My fellow volunteers and I roamed the sterile halls around every major holiday like tooth fairies. The psych ward—the largest in the hospital—was off-limits. Nurses warned us not to put sharp objects in care packages. Even mentally healthy soldiers weren't allowed to have access to instruments of suicide. War had reached every bedpost.

One evening, our charity organized a casino night for the recuperating soldiers: card games and raffles bearing prizes like stereos and computers. My job was to talk to the veterans while they played cards, divine what they wanted in care packages. Every soldier had ideas. They were unflappable, oblivious to their missing arms and legs, the bandages around their heads, the wheelchairs to which they were confined for life. *Shot glasses, robes, candy*, they suggested. Small things made them happy.

As casino night drew to a close, the volunteers assembled on the stage to announce the grand prize. The soldiers gathered below, excitedly comparing numbers of tickets won and lost. Two men—not more than forty years combined—boasted only one ticket between them, intending to split any prize they won. One had lost his legs and was lying on his stomach, leaning over the stage to grasp half of the precious ticket, while his buddy, in a wheelchair on the floor below, held the other half. They clutched the scrap gleefully like it was a ticket to another world. The odds, I knew, were overwhelmingly against them.

The announcer called the winning number. They'd lost.

I have a complicated relationship with math. Sometimes it's my friend, sometimes my enemy; sometimes reassuring, sometimes brutal and uncaring. Either way, it's here to stay, like a

childhood memory or a scar. I still find myself crunching the numbers, often on a daily basis. Anytime I feel death might win.

During the pandemic, I computed the chances of getting COVID from passing someone on my morning jog. How likely was I to die if I got sick? (I was middle-aged, healthy, didn't smoke...my numbers were good.) After getting vaccinated, I calculated the necessity of a mask, the risk of transmission at a restaurant, a concert. How long would it take for my inoculation to wear off? For a booster to kick in?

As I grow older, I get increasingly nervous at doctor appointments. I wonder if the smog of burning trash, ordnance smoke, and other toxins we breathed daily in Baghdad will eventually defeat my body's defenses, warp my cells. If the math will tell me it's my turn. Statistically, I know, I'm at higher risk.

Now I'm a parent, and every time there's a school shooting, the numbers start forming columns on the page. Chances are small, I tell myself, that it will ever happen to my son. That a school in our district will be the next target. Miniscule probability that it will be my son's school. Half a percent? Quarter percent? His classroom. Surely less than an eighth of a percent. (Right? Don't fail me, math. Please don't fail me on this one.)

Math is my memento from Baghdad. Adding, subtracting, multiplying, dividing chances of death, looking for answers and rules and reassurances, something to hold onto in a world that feels every day, in a million ways, like a war. All I can do is hope the numbers are on my side.