

Traveller from an Antique Land

I.

After her train journey, Shelley could have walked south from Union Station, but she has taken a long westward arc toward the Capitol instead. She planned it this way. You should be selective with the imagery you experience just before a big event. It is a bit like athletes and their hype music; but for Shelley, what comes to mind instead are the actuarial fellowship examinations from decades earlier. Successful candidates had routines. Shelley's was listening to the overture from "Carmen" just before the test. The tempo, the frolic, the adrenaline. The contributions of all orchestral sections, like the parts of a brain. Well, before a meeting this important, who would want to fill their consciousness with vast parking lots? Why not go a little out of your way, and take inspiration from the National Mall?

Having completed the arc, she approaches the dome from the west. To her right, the museum celebrating the progress of the space age, the pinnacle of technological achievement. To her left, the nation's repository of priceless art, shrine to the creative human spirit. If she could, she would walk straight down the middle. But they make you choose one side or the other.

She hears the ding of her phone pulsing through the cold air, feels the familiar buzz through her coat. "The Senator will be ready for you in twenty minutes." Her adversary today, Chloe, must have received the same warning, probably by BlueChat. There are so many clouds of The Blue One on the Capitol grounds today, slow to dissipate in the chill. One of them probably belongs to Chloe.

Someday soon, Shelley's phone will fail, and nobody on the planet will know how to fix it. Meanwhile, just as she prefers old-fashioned transportation, she enjoys having a phone. People tell her: "You should use The Blue One like everyone else. The Blue One is superior in every respect. Entertainment, information, socialization, clarity, ergonomics. And basically free."

They fail to understand that when she uses her phone, she is back in simpler days. Days of working with others in the flesh. Days when most people had jobs to serve the essential purpose of directing their waking energies. Not like all the younger folks today, who wake up in the morning, shroud themselves in a mist of The Blue One, and then... do what? Try to decide what to create today? Try to decide what to discuss in their BlueChat today, what to read, what virtual experience to have, whom to influence? Try to decide what to think about?

II.

In Shelley's college days, it was not uncommon for promising mathematics students to be encouraged into actuarial careers. Students as bright as Shelley would usually have a few job opportunities. Shelley found herself at a west-coast pensions and annuities provider.

They were the highest-quality provider in the industry. The robust actuarial department made them the most expensive, too, but most customers found them worth every penny. Shelley loved being an actuary among actuaries. Her team worked well together. Shelley had a gift for translating between the language of executives, strategic and flavorful, and the language of actuaries, understated and objective. This gift soon placed her near both the beginning and the end of many flowcharts. She became visible to upper management, just as she completed the grueling credentialing process.

Beyond the mere satisfaction of ambition, though, Shelley found a particular charm in this line of work. At the time, she would have struggled to articulate this deeper appeal, but it was intellectual in nature. It had something to do with reconciliation, a concept she had encountered on her very first day. Her supervisor had asked her to reconcile some lists of people and then reconcile some account statements. This was all so that the supervisor could reconcile the valuation results to the previous year's results and then reconcile them to what they would have been if they had been completed a different way. Many professionals spend time reconciling this list to that list, this number to that number. But actuarial work required reconciling a whole process to another process. Reconciling one problem-solving theory to another, one type of result to another. Keeping track of when, and how, one type of person transforms into another type of person.

III.

Shelley tries to hold together her nerves. Many years have elapsed since she crossed paths with Chloe. But she knows Chloe will be smooth and persuasive, wielding all the heft of PidsCo. She expects Chloe has spent weeks honing her message with her fellow barons of PidsCo leadership. They probably used PidsPR, a.k.a. The Violet One, to come up with different slogans – attacking, unifying, defensive. Surely, though, The Violet One could not advise on which to use.

PidsCo rose to its position as titan of the new economy by patenting the Portable Ionized Decision Spray. All PidsCo aerosols, once sprayed, disperse in microscopic charged reflective globules that gather data from the immediate environment. They instantaneously process the data and assist the user in making some type of decision. Different types of decisions come in spray bottles of different colors, giving rise to the shorthand commonly employed. One universal feature of all colors of the brand, sort of a running cultural joke at this point, is the ever-confident Voice from the Sky, delivering the verdict with such poise that some people think what you pay for, actually, is the Voice's convincing, folksy reassurance.

PidsCo's first product, PidsMeal, a.k.a. The Yellow One, tells you what you should have for dinner. It gathers panoramic ultrasound photography of your kitchen, along with information about the air's chemical composition, what you are likely to have already eaten recently, ingredients overrepresented and underrepresented in your diet, latitude and longitude to account for regional variations, evidence of children, and more. "This evening," the Voice from the Sky might boom from all corners of your kitchen, "y'all should really have grilled cheese sandwiches, grapes, and macaroni for the kids." (The user can customize to the second-person plural pronoun most fitting to

the local dialect.) Pids4Dinner arrived in the 2050s to great acclaim and empirical success. Users could not explain why, but they felt more secure and well-rounded in their nutritional decisions, and moreover, their marriages were better.

The Yellow One and many other decision sprays, though successful, were to be overshadowed by the worldwide cultural dominance of The Blue One. Developed in 2070, The Blue One, formally PidsVX, leaves a durable cloud of particles around the user, requiring a new spray every few hours. It supports three-dimensional virtual experience, social conversations, entertainment programming, and more. Users can also consult it for guidance on identifying programs and interactions that will improve the user's overall life experience.

Reportedly, PidsCo has poured mammoth resources into product enhancements to enable higher-level executive function. Obvious advantages would come from allowing users to rely on a spray. Still, the corporation has not identified an inroad. Users must fend for themselves when it comes to creativity, critical thinking, and the spending of their precious attention.

IV.

They sit on benches in a Capitol corridor. Chloe, immediately opposite Shelley, does not seem to recognize her. But Shelley remembers everything about their previous encounter. Shelley was a hotshot at her firm, and the Vice President for Growth had gathered the leadership team. They all agreed to the strictest confidentiality about whatever would transpire in the meeting.

“Before getting on to the main business of the day,” the VP began, “I just have to say, you are the best team of actuaries in the world. You’ve proven it. We dominate the market. Shelley, remind me, what are those lines? Hang on, I gotta back up, some of you may not know this, but Shelley, who it must be said is our newest Fellow of the Society of Actuaries, is named for a poet! Love that you’re named for a poet. Really rounds out the company. I need a blurb from you on the marketing materials, doesn’t matter what it says, just so I can put in there: Begin quote, blah blah blah, end quote, dash, Shelley, Actuary Named for Poet. End of blurb. Anyway, what are those lines I was telling you about? Tip of my tongue. It really spoke to how I feel about the market right now.”

“I think you’re talking about, *My name is* - “

“Yes, yes,” he waved her off, launching into theatrical recitation. “*My name is Ozymandias, king of kings: Look on my works, Ye Mighty, and despair!* Captures my feelings perfectly. Nobody can beat this team. Well anyway, today we have a real treat, a major partnership to announce.” He opened the door, and in strode some world-beater from the hottest consumer products company in the world. “Allow me to introduce Chloe, Chief Coding Monarch of PidsCo. That’s really her title. So clever, that company. She’s here to tell you about their newest product, PidsVal. And we are going to be the sole distributors!”

“Hang on,” Shelley’s colleague Marvin interjected. “You are talking about an actuarial valuation product? From PidsCo? Does PidsCo even have actuaries?”

“Don’t need ‘em,” Chloe batted back matter-of-factly.

“What makes you think you can do anything actuarial?” The panic set in quickly.

“Excellent question. Here’s how it works...”

“No.” Marvin turned to the VP. “PidsCo can’t do this. They’re not qualified. We’re talking about actuarial work, not an aerosol.”

Accustomed to such reactions, Chloe pressed on. “PidsVal runs on the same principle that you’ll recognize from all your favorite PidsCo products. Once sprayed, it gathers data from the surroundings. PidsVal, in particular, looks for organic material.”

“Cells,” Shelley muttered.

“Living cells, dead cells, whatever. The PidsVal globules collect DNA patterns, biological process breakdown, prevalence on the surface or in the air, and so on. This lets it make inferences about the age, health, and everything you can imagine about the people who have been anywhere nearby. And then it’s off and running, no stopping it. Oh, and it runs very well on imperfect information. It looks for similarities in trillions of other data items that PidsCo has collected through the popular use of its many products. Whatever limited data you give it, it will bootstrap tens of thousands of plausible subject populations. It will run tens of thousands of scenarios on each of those populations. Snap of a finger. It doesn’t matter if any given scenario or hypothetical population is the ‘correct’ one. What matters is the volume and range of the scenarios. No census gathering on the subject population. No collecting and handling someone’s private data. No reconciling what happened to so-and-so since last year. No careful checking of calculations.”

Marvin, serious now from his corner: “So, in other words, you are saying it cuts out the things that people pay actuaries to do? Is that basically what you’re saying?”

Chloe made a minor show of inhaling, then exhaling, then twisting her face into a well-I-wouldn’t-know-all-that look. Then she resumed. “Just go into a place where the people gather. The annual retiree meeting, the employees’ quarterly in-person jamboree, the elevator. Nobody has to know you were there. Spray it once. It will execute the calculations flawlessly. It will deliver concise findings with attractive visuals and a clear recommendation. It will even deliver the key outcomes in PidsCo’s classic Voice from the Sky, if the client finds that desirable. Most people do. After all, the Voice from the Sky is a psychological touchstone that helps the decision-maker avoid regret risk.”

“Has it ever occurred to you that regretting a bad decision might be natural and productive?”

Chloe no longer dignified Marvin with eye contact. “Well, I’m sure you’re all interested in the main event. Nothing like seeing it in action, right?”

Chloe removed a bottle from her bag. Apparently, PidsVal would be The Gray One. She took aim at center-room.

V.

After the spray, after the showy sparks consuming all surrounding organic particles, after the Voice from the Sky, after the request, granted by the Voice from the Sky, for detailed output from Scenario #5,832 on Plausible Subject Population #7,417, after that scenario was carefully, head-scratchingly scrutinized by all assembled, and after the actuaries' failure to deliver any material critique to defend themselves from creeping technology, then came the open weeping.

"I understand that this is difficult," observed Chloe. "Would you all like a moment?"

"Difficult? Our careers are over," Marvin lamented. "Our profession is over."

Chloe removed tissues from her bag. "If I could just ask one thing. Please, when you're done here, use these tissues and put them in the waste basket."

"Get out," said Marvin.

"Tears contain water-soluble chemicals that can really help us..."

"Please leave."

"Improve our model."

Years later, it occurred to Shelley: They all should have read the rest of the poem.

VI.

The Matters Actuarial, Miscellaneous, and Budgetary Act (MAMBA) of 2073 resolved a prolonged impasse over the federal budget. It gained infamy for its hundreds of bizarre last-minute insertions. Perhaps the most ridiculed was the requirement that non-legislators visiting Congress must refer to members as "Your Resplendence." This provision found its way into the law through the insistence of some long-forgotten representative, starved for praise, and everyone else thought it was harmless enough that it was not worth jeopardizing the legislative process to remove it. Small price to pay for a federal budget. In short time, it became a Washington joke.

Outrage over "Your Resplendence" shielded MAMBA from public attention to its other provisions, including one that allowed: "No actuarial valuation conducted by use of a Qualifying Microspray shall be subject to legal recourse by any user. For purposes of this subsection, a Qualifying Microspray is a substance first registered in the year 2062 by a United States corporation operating in the ionized decision spray industry with annual revenues exceeding one trillion dollars."

In the wake of this legislation, Shelley and her company witnessed the fearful scrambling-away of most of its actuaries. How could they compete with a consumer product that could not be held accountable for its recommendations? Shelley studied *The Gray One*, ascertaining what she could about its tendencies. She stayed at the company, grateful for the clients who valued human decision-making over the cheaper alternative. She concentrated on speaking, writing, and

synthesizing. She tried to convince her colleagues, the ones she cared about most, that actuaries would always have something to add to the conversation. All the same, they scrambled away.

Within a year, the Chief Actuary informed the few remaining stalwarts that the department would be removed from the organizational chart and replaced, not by new boxes and lines, but by a mist. By an abundant supply of The Gray One. They could apply for openings in Growth or Customer Service, but if they did not, there were no hard feelings. They were wished well in their future endeavors.

VII.

Two weeks ago, Shelley was taken by surprise when her phone rang with an a voice call. She had forgotten about that function.

“Hi, I heard that calling this number might be a way to locate someone who is, I’m not sure what it’s called, but an actuary?” The caller pronounced it correctly, but tentatively, like a second-grader might take a stab at “dowager” or “viceroys.”

Javier, from Empowering Delta Generation Employment, said he was casting about for help. The Deltas, now in their twenties and thirties, faced obstacles in providing for themselves, unlike the experience of Betas like Shelley.

It was not that EDGE expected every Delta to have a job. As everyone now accepted, income came mostly from inherited wealth; production, from machines. Those Deltas who could live off the endowments of their forebears did not need jobs. But for the many others, finding employment had become nearly impossible.

“Most jobs don’t require humans,” Javier explained. “And now, even for the promising jobs, we keep hearing the same story over and over. About The Gray One.”

“The Gray One? The actuarial spray?”

“Strange but true. The story goes like this. Someone is about to be interviewed for a job. Then what happens is, first, the employer sprays The Scarlet One.”

“Scarlet.... Don’t tell me.... Oh, I remember. PidsHR.”

“They just do it for the checklist. Because if you follow the hiring checklist from The Scarlet One, nobody can sue you. So then, near the end of the checklist, it tells them to spray The Gray One.”

“Why?”

“Supposedly to understand the costs of hiring the person. Employee benefits used to be a big factor. Decades ago. Maybe they forgot to take it off the checklist.”

“Or maybe it’s just an easy way to keep The Gray One in circulation.”

“So, whatever employer it is, let’s say they are finishing up the checklist, they spray The Gray One, and you know what it says? I keep hearing this. I wrote it down so I could see if it ever changes. But it seems like it’s always the same. I’ll read you the one that came up recently from an engineering firm.” He read:

“Based on PidsVal’s analysis of over nine million demographic and economic scenarios, you should not include additional humans in your enterprise in engineering. Access to human-specific abilities justifies the overall costs in only about two thousand of the scenarios, constituting less than three one-hundredths of one percent. A situation justifying the hiring of a human engineer would represent a deviation of three standard deviations from the average expected scenario. Under the three-sigma rule, it is prudent to consider it a statistical certainty that your current approach to engineering is unwise and cannot succeed. Furthermore, we estimate that in the past, human experience and judgment in engineering have not contributed to outcomes benefiting the economy, the quality of life, or the human condition, as compared to what machines could provide. Therefore, you should consider replacing all humans currently participating in engineering. Artificial intelligence will be a more effective and efficient substitute. Learn more wherever PidsCo products are sold.”

“That’s... I don’t know. That’s interesting. Who do they think engineered the machines?”

“The fact that it’s engineering is just a coincidence. We’ve seen it for retail, agriculture, customer service, everything. Even medicine. Always the same words, except they might change the ‘you’ to y’all, or youse, or whatever.”

“So homespun, those PidsCo folks.”

“And always the same numbers. The nine million. The two thousand. Does that make any sense?”

“Not really. Not on the surface, I mean. What are you trying to do about this?”

“We’re trying to get Congress to repeal the MAMBA exemption for Qualifying Microsprays. The Gray One always says no to jobs. Nobody even questions it. We need – I won’t try to say it again, someone of your background – to pick it apart.”

“When?”

“In two weeks. We managed to get a meeting with Senator Lannard after we helped her fight off those rumors that were going around in BlueChat. The rumors about how she didn’t like the music the kids were listening to.”

“The dance meme was a strong response. It gave her a big bounce in popularity.”

“It was my idea. So, you should know, this thing about getting rid of the exemption for The Gray One, it’s probably not going anywhere. PidsCo will be there too, their Government Relations Overlord. She will probably destroy us. But we don’t usually get a chance like this. We have to try.”

After hanging up, Shelley talked into her phone to ask it a question – another long-forgotten feature. “PidsCo’s Governmental Relations Overlord,” the phone responded, “is Chloe Sharpwell.

Ms. Sharpwell rose to prominence as PidsCo's Chief Coding Monarch and supervised the development of dozens of decision aerosols."

Shelley glanced down at her phone, saw Chloe's face, and felt afresh the doom from the conference room. She blurted out, "Thanks, you can stop now."

VIII.

"Just to set a ground rule," Senator Lannard begins, "this is a no-resplendence meeting." This announcement is a common person-of-the-people gesture. "Ms. Sharpwell, it is always nice to see you. It seems an everyday occurrence. And you," she asks turning to Shelley, "are the actuary?"

"One of the few."

"Senator Lannard," Chloe cuts in, "all you need to know about this meeting is this: EDGE's ideas are not full-fledged, and they're putting you on a ledge."

Shelley knows The Violet One cannot involve critical thinking in its slogans, but goodness.

"They're putting me on a ledge? Your product is the one that spread all those rumors about my taste in music."

"PidsCo apologizes for that. We hope you know we were only the messenger. And your dance was amazing, Senator."

"If I may," Shelley interjects, "we're here because something needs to change."

"Well, I do understand there is a bit of a generational dispute. And for such a dispute, you might as well start with me."

Senator Lannard chairs the SCIP, the Senate Committee on Intergenerational Peacekeeping. Formed urgently during a bitter mid-century climate debate, it has scarcely seen activity since. Chairing the SCIP has become a sort of honorary role conferred upon the eldest senator of the majority party, a symbolic reminder of the importance of attending to the interests of all age groups.

"When EDGE called me," Shelley says, "I thought what you thought, that this was a generational dispute. But it is more. It is about how judgment is applied in the world. Or even, whether it is applied. The Gray One has removed human elements from how decisions are made."

Lannard sits in suspension, negotiating her reply. "We must be aware that this microspray technology is valuable. It serves our people well. And we also must be aware that decisions make the world go round. People have gotten used to making these decisions a particular way. Now if we say they can be made a different way, what's going to happen?"

"You are absolutely correct, Senator," adds Chloe, sensing the advantage. "More than ninety-nine percent of actuarial decisions are now made exclusively with PidsVal. Even if you allowed our product to be questioned through a legal process, in the same sense as the advice from

people-actuaries, which is very expensive advice by the way, there aren't enough people prepared to do the work anymore."

"I understand," says Lannard.

Chloe ill-advisedly adds, "After all, you know what we say. Delta, Gamma, Beta, Alpha, Z: PidsCo will be there for you and for me."

"Do you think that is helping?" Lannard shoots back. "I said I understand."

"Senator, on behalf of EDGE and myself, we are concerned about this recommendation that keeps coming up, telling people not to hire anyone. To EDGE, it does not seem like good policy. To me, it does not seem like it belongs in an actuarial product."

Chloe responds, "What would EDGE suggest as an alternative? PidsVal is accurate and effective."

"Well," Lannard turns to Shelley, "do you agree with that?"

"Accurate and effective? That's an interesting question. Nobody can review how PidsCo's model works. Nobody knows all their assumptions. Nobody from the outside has taken apart their code. Suffice it to say, I think there are parts of their process that we might not always agree are accurate and effective."

The Senator raises her eyebrows. "You are saying PidsCo makes mistakes? I mean, this is a great American company. I have great confidence in their products. I use them myself. I'm sure if there is a problem, they will fix it. Can you be specific?"

"In fact," Shelley suggests, "I have The Gray One with me now. Could we perform a test?"

"Fine," says the Senator. "But no Voice from the Sky." Everyone laughs.

IX.

The spray is released. The showy sparks consume all surrounding organic particles. The report flies instantly to Shelley's phone; to the Senator's personal device; and to a BlueChat that Shelley has created for the occasion.

Shelley asks, "Chloe, could you please read aloud Section Eighteen of the report from this most accurate and effective product?"

"Okay," Chloe begins. "Based on PidsVal's analysis of over nine million demographic and economic scenarios..." She glances ahead, seeing the problematic words on the horizon, but it is too late to stop reading. "Y'all should not include additional humans in your enterprise in Congress." Her voice reduces to a mumble as she proceeds.

"I think it's important to finish out this paragraph," Shelley insists.

Chloe, hardly in a position to refuse, reads flatly. “It is prudent to consider it a statistical certainty that your current approach to governing is unwise and cannot succeed.”

“Unwise and cannot succeed!” Lannard repeats. “Please, go on.”

“Furthermore, we estimate that in the past, human experience and judgment in Congress have not contributed to outcomes benefiting the economy, the quality of life, or the human condition. Therefore, y’all should consider replacing all humans currently participating in Congress. Artificial intelligence will be a more effective and efficient substitute. Learn more wherever PidsCo products are sold.”

When Chloe can no longer bear the Senator’s stunned silence, she asks, “Would it help if I reminded you that gray spray is really okay? It’s used every day, all the way across the U.S.A.”

“It would not.”

X.

For her return walk, Shelley chooses the other side of the National Mall.

The SCIP will investigate. PidsCo will face subpoenas. Millions will see the report posted to today’s BlueChat, with PidsCo’s premiere product serving as the channel of its own embarrassment. To many, Shelley will become notorious for undermining their favorite decision spray brand.

But, she thinks, she has done something to reconcile the proper roles of technology and human judgment in decision-making. She has helped to reconcile the conditions of her generation and those to follow. And would not the actuaries of long ago, of the early 21st century, have recognized these as goals of their own work?