



Electronic Edition

**THE DAY  
THE PRIMING  
STOPPED**

**A  
Dr. Primstein  
Adventure™**



## The Day the Priming Stopped: A Dr. Primestein Adventure™

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*Life is one big priming experiment...*

*—Wray Herbert*

*These pages are not part of this sample.*



## *Chapter 40*

# *Flair in the air*

Without a word, three of the methodologists' guards brought Dago and Youngest to the top of the northern wall of the Fortress. As they cleared the last few steps, they could see over the edge on both sides. Outside the walls the lush, disordered vegetation of the surrounding hills was just starting to change into its fall colours; inside the walls, though, was more difficult to make out. With an efficient hand motion, one of the guards ordered them to move toward the

inside edge of the wall, and then to turn around facing the Fortress itself.

Extending for kilometres from the bottom of the wall below them were neat, geometric patterns. Drab concrete walls, laid out in squares just under three meters wide, made up cubical rooms with no ceilings. Along the top of the concrete walls were walkways, criss-crossing the cubicles and providing access to each via a ladder. Guards paced the walkways, stopping periodically to peer into the cubicles on either side.

A central walkway led from the wall several stories below them into the heart of the Fortress, where an imposing tower watched over the cubicles. At the tower's base was a great flame: apparently an incinerator of some sort. A hundred meters or so above the flame was a gigantic display with three columns of text. The first column appeared to contain the authors of various scientific articles; in the second column were numbers, most in the tens of thousands;

and the third column contained both positive and negative numbers, with most around zero. As Dago and Youngest watched, the top row disappeared and a new row was added at the bottom.

Dago focused his attention on the cubicles just below him near the wall, at the ground level. The concrete walls of each cubicle were illuminated by the glow of a single computer display. A vaguely humanoid figure faced each display, but instead of arms, each figure had long tentacle-like appendages that reached out and attached to a location behind the display. The figures were suspended in midair by another appendage that protruded from their backs. Every few seconds, the display changed, but the screens were too far away to make out what was being presented. Dago and Youngest wondered at the mesmerising aggregate effect of thousands of cubicles changing colour and brightness at regular — but slightly out-of-sync — intervals.

“Beautiful, isn’t it?” asked an unfamiliar voice

behind them.

Dago and Youngest turned around to see that the three guards that had brought them to the top of wall had been joined by a fourth man. He was tall, dressed in a loose dark robe and a hood that obscured his face. Even with the loose robe, it was clear that the man was lean and fit.

One of the guards behind him shouted at Dago and Youngest: “Kneel before the supreme methodologist!”

The robed man held up his hand. “That won’t be necessary. They are our guests...for now.”

“We checked them for weapons,” the guard reported to the supreme methodologist. “We found this.” The guard handed him Dago’s jackknife.

The supreme methodologist examined the knife with interest. “The weapon of a statistician; I wonder, what is a psychologist doing with such a dangerous



thing? We would not want you to hurt yourself.” He tossed the jackknife over the wall outside the Fortress. “For months, we have searched for you. I should thank you ending our search by coming straight to our door. Finally, I meet Dago himself, the last of the Psychologists’ resistance to the inevitable future of science.”

*He must know that Dorian Primestein is dead*, Dago thought. He stepped forward defiantly. “I have an entire Association ready to — ”

“Your ‘Association’? The ones you left at Tanagra? Even now, they are on their way here in chains. By tomorrow, they will each take their place in a cubicle somewhere below us. Then they will see what a *real* experiment looks like, as opposed to what you were doing in that...cave laboratory of yours.”

“That was *good science!*” Youngest objected.

“Science? You dare to tell *me* about *science?*” the

robed man bellowed. “Let’s talk science then. Look out at the Fortress below you. In each cubicle is a participant. They are fed nutrients intravenously, and for the 19 hours and 47 minutes they are awake each day, they participate in pre-registered replication experiments. The results are compiled automatically. You can see the summaries on the display there, on the tower.”

As he pointed to the tower, the massive display added another row: *Strack, Martin, & Stepper (1988); 50631; -0.0003*. The supreme methodologist smiled. “Another failed replication with a tiny effect size...fifty thousand participants...and it took only three hours to perform.”

Dago waved his hand dismissively. “That means nothing. These participants were all affected by the anti-priming virus!”

“There’s always an excuse, isn’t there? Perhaps when you escape — *if* you escape — you can write

a comment and submit it to the Publishers. They'll make sure I get it to review," he sneered.

Youngest shook his head. "These participants are suspended in midair and being force-fed nutrients in open-air concrete cubicles. Surely you can't draw any general conclusions from these data!"

The robed man turned to Youngest. "Very good, young student...but is this so much worse than sampling white, upper-middle-class, undergraduate participants, from 18 to 22 years of age?"

Dago nodded. "He's got you there."

Youngest withdrew his objection.

The supreme methodologist walked to the edge of the wall to stand next to Dago and Youngest. He raised his arms over the Fortress of which he was so proud. "We have purged the last bit of flair from science! Years ago, when you Psychologists called us

‘second stringers’ and ‘replication bullies’, you had no idea the plans we were devising. Now, science belongs to us! Look!” He pointed into the distance at a helicopter just coming into view carrying a large load suspended by a cable.

The supreme methodologist walked back and stood next to the guards. “That helicopter holds the penultimate load of the Psychology journals published before the Happening. See your ancient science disappear before your eyes!”

They watched as the helicopter hovered over the incinerator at the base of the tower, dumping the load into the flames. The fire consumed the paper journal pages, throwing a billowing column of ash into air.

Dago spun around angrily. “Why destroy the old journals? What does that achieve?”

The robed man frowned. “Some of the published effect sizes are so large that our meta-analyses give

significant results even after millions of new participants.” His face brightened into a smile. “But don’t worry! The final load of paper journals will arrive soon. Then we begin anew, the old regime destroyed by righteous fire!” His cackle chilled Dago to the core.

Dago looked back out over the Fortress. It was now dusk, and the incinerator flame cast an eerie light on the tower. The cubicles blinked like fireflies as the participants within them performed their tasks, kept alive by some unknown liquid involuntarily pumped into their bodies. Dago sadly wondered if they had lost after all.

“Who are you?” Dago finally asked, after a long silence.

“Who am I? My name is...” He lifted his hood, revealing a middle-aged face with deep-set, dark eyes, and black hair peppered with grey. “*Professor Power.*”

Dago and Youngest burst in spontaneous laughter at the name. Youngest doubled over, holding onto the edge of the wall for support.

Dago unsuccessfully tried to stop laughing to ask Professor Power again. “No, serio — seriously, of all the — you call —” He took deep breaths, but Youngest’s laughter provoked more giggling spasms.

Professor Power grimaced as one of the guards behind him choked back a reflexive snicker. “Guard, what is your number?”

“Sir...two nine...” — he snickered again — “two nine oh one, sir!”

Professor Power turned to the stern guard who had earlier demanded Dago and Youngest bow. “Take guard two nine oh one down to Room 75.”

Guard 2901 stopped laughing immediately. “Sir, I’m sorry, I didn’t mean —”

“Take him! We’ll see if he’s still laughing after a week of filling out personality inventories. How’s your test-retest reliability, two nine oh one?”

The stern guard led the unfortunate 2901 down the stairs. As they disappeared from view, Dago and Youngest had finally regained enough control of their laughter to face Professor Power again.

Dago carefully addressed the Professor. “This is going to sound...presumptuous...but your name is a bit ridiculous. Couldn’t you have picked something a little more intimidating, like — I don’t know — Doctor Data?” Youngest laughed.

Professor Power was hurt. “You don’t have to be an asshole about it. It’s my name. My name is Chris Power.”

Sudden recognition took Dago. “Chris Power...didn’t we meet at APS back in 2018? The year when the keynote speaker gave that terrible

talk that ran over by an hour?”

“I think...yes, I remember that. You’re Daniel? We had dinner with Christina and Jan, right?”

Dago nodded. “Yeah, we went to that Chinese restaurant by the convention center. Remember, that was the year they had all the cheese at the President’s reception, but the caterer forgot to bring any white wine! It was a total disaster. I don’t know how we made it through.”

“I’ve never been invited to the President’s reception.”

“Oh,” Dago sensed some awkwardness. “Well, trust me; it was a bad year.” The conversation ground to a halt.

Dago tried again. “So...how have you been?”

“Good, pretty good. I was promoted to Professor.”



“Hence, the name —”

“Yes.”

The dying conversation was mercifully interrupted by a call on Professor Power’s mobile phone. “Yes...good, we’ll be right down.” He looked back at Dago and Youngest. “Would you care to join me for the celebration of the final death of the pre-Happening Psychology? It is much...warmer near the incinerator.”

Dago and Youngest felt the chilly bite of the air high on the wall now that the sun had disappeared behind the mountains. The three researchers, accompanied by the remaining methodologist guard, walked along the wall toward a metal door set in the side of a watch tower.

“This Fortress is a monumental technological achievement,” explained Professor Power. “Every aspect of the Fortress’s security is run by R.” As they

arrived at the metal doors, the Professor pressed a small button on the wall to the right. “This is an elevatoR, run by its own R package.” They waited for the doors to open, but nothing happened.

After a few minutes of alternately waiting and then mashing the elevatoR button, Professor Power called someone on his mobile phone. “The elevatoR is not working...what? Why would they do that?...call Hadley Wickham!...doesn’t anyone around here check packages against the development version of R before upgrading?...yes, we’ll wait.”

“Someone upgraded R without permission. Should be fixed soon,” Professor Power explained.

They waited for several minutes without speaking. Dago whistled a random tune as Youngest kicked a small rock from wall to wall. Finally, Professor Power’s phone rang again. “Yes...no, don’t bring the SPSS backup online. Last time we used it we lost three people...how was I supposed to know that the ‘Avoid

certain death' option was in the optional 'Plots...' dialog?...ok, just get it fixed! No SPSS!" Professor Power put the phone back in his pocket and turned to Dago and Youngest.

"We're taking the stairs."

The group started down the ten flights of stairs to the bottom, Professor Power in the lead, followed by Dago and Youngest, with the single armed guard behind. Youngest wondered whether the two of them could overpower the guard before the Professor could act, but he could not communicate his plan with Dago without the guard behind knowing.

Dago looked over at Youngest and smiled. "Chris, are these the staiRs?" — he deliberately drew out the R for effect — "because they seem to be working just fine for us!" Youngest giggled.

Professor Power didn't stop. "Shut up," he snapped.

As they arrived at the bottom of the stairs, they turned into a long hallway with double doors at the end. Professor Power approached the doors, obviously expecting the doors to open automatically. They did not.

“Oh, come *on* —” He sighed and motioned for the guard to help pry the doors apart. They held the doors open just enough for the four of them to slip through before letting the doors snap shut again.

Now outside, they stood at one end of the long central walkway leading over the participant-running cubicles. At the far end of the walkway, the tower rose above the leaping flames of the incinerator. The results display on the tower added another row: *Baumeister et al. (1998); 77039; .00095.*

Professor Power started toward the incinerator. The guard grunted impatiently for Dago and Youngest to follow. As they walked, they stole looks into the nearby cubicles at the participants in their

twisted costumes. Up close, the true grotesqueries of their bondage revealed themselves. The long metallic arm suspending the participants from their back contained the feeding tube and a second tube for human waste. The feeding tube wrapped around their torsos like synthetic pythons, attaching to the front of their necks. The participants' mouths and noses were bare, but their eyes were covered by goggles reminiscent of early twentieth-century gas masks. The tentacle-like appendages around their arms appeared to be a kind of computer interface, attached to the front of their cells behind the experimental display. The rest of their bodies were covered with a slick, black rain- and wind-proof bodysuit, making them appear like freakish extraterrestrial squids fixed to the concrete walls.

*If only we had stopped this replication madness years ago, before the Happening...*, thought Dago as they walked. *History will not judge us kindly.* He tightened his grip on the satchel Dorian had given him, which still contained everything the guards did not take: his

Replication Mirror, the last tube of Dorian's secret recipe chocolate chip cookie dough, and several cans of EGO BOOSTER energy drink.

“Tonight, you will see the final triumph of the methodologists,” Professor Power boasted. “As the results are collected from these participants, they are immediately sent to our head data analyst — who you will meet very soon — and then off to publication. We have a direct pipeline to the Publishers; in exchange for our high-impact replication work they have kindly agreed to send us the remaining pre-Happening papers for destruction. You have never *seen* funnel plots as symmetric around zero as the ones we send the Publishers now.” He kissed his fingers. “Mwah! *So beautiful.*”

They approached the incinerator, where a figure waited for them to arrive. As they walked closer Dago noticed that she appeared to have some sort of implants in her arms. The implants glowed, like dim lights, or — and then it struck him what they were —

computer displays. Half of her face was covered by a prosthesis, with one eye behind a glass panel. Faint lights blinked up and down her neck and arms. She stood completely still, her gaze fixed on Professor Power.

When they reached the woman they stopped, and the Professor turned around to Dago and Youngest. “Friends, allow me to introduce CORA, our head data analyst.” CORA nodded slightly in their direction. “CORA is a Cybernetic Organism for R Analysis; hopefully, the first of many of her kind. She is the future of research psychology — no flair, no bias, no *p* hacking. Just objective, pre-registered, automatic research and data analysis.”

Dago examined the human side of what remained of CORA’s face. “Cora...?” He squinted as he tried to place her face. “Cora Sands? Didn’t you work with Mike back before —”

CORA interrupted him. “I know of no one by that

name.”

Dago shook his head. “I knew you were good at statistics, but this...I did not think you were capable of *this* monstrosity.” He pointed up toward the massive tower.

CORA ignored him and turned to Professor Power. “We have reverted the Fortress back to R 4.5.2. All systems are now operating as expected. Today, 5.1% of our experiments have been statistically significant; our average  $p$  value was 0.53; our average Bayes factor was 31 in favor of the null hypothesis; Egger’s test indicated that —”

“Yes, fine!” Professor Power interrupted her. “We have more important things to attend to!” The helicopter with the final load of Psychology paper journals hovered just above the incinerator, ready to drop the final vestiges of pre-Happening science into the fire below. “CORA, are you ready?”



CORA nodded.

Professor Power faced the flames with outstretched arms, raising his face to the sky where the helicopter waited. His eyes danced with the yellow and orange of the blaze; his skin was taut from the waves of dry heat blasting from the incinerator's core.

"Now, witness the *power* of *Professor Po*— ...now, *witness* my — oh hell. Just do it, CORA."

CORA pressed a button on her arm, causing the helicopter to drop the massive bundle of paper journals into the incinerator. The fire exploded with an almost unbearable heat; the smoke and ash burned in their eyes. Professor Power turned to them with a triumphant smile. "Now you have nothing left. Your kind are finished."

Dago's eyes watered, but he was unsure if it was from the ash or the sudden realization that Professor Power — and all the methodologists — had won. He

breathed deeply as he watched glowing embers catch the rising hot air and fade away. *Youngest is too good for this*, he thought. *He must escape.*

“Chris...” Dago started.

“Call me Professor.”

“Professor, there is no reason for Youngest to be here. He had nothing to do with...all that.” He waved toward the burning pile of journals.

Professor Power shrugged. “Youngest is no concern of mine. He’ll be put to good use as a research participant.”

“No, let him go, please. I’ll give you...I’ll give you something worth much more to you than another research participant.”

Professor Power raised an eyebrow, intrigued. “What could you possibly have that would be worth anything to me?”

Dago reached into his satchel, slowly held out the tube of Dorian Primestein's secret recipe chocolate chip cookie dough. Youngest gasped. "No, Dago...don't do this for me..."

Dago ignored him. "Professor, in this tube is the last remaining batch of Dr. Primestein's secret recipe chocolate chip cookie dough. You thought you had rid the world of the last flair, but you were wrong: *this* is the last bit of flair in the entire world. Please, let Youngest go."

Professor Power smiled. "Really...? Primestein's own secret recipe, and you would offer this?"

He reached out to take the tube of cookie dough, but before he could grasp it, Youngest jumped between them and knocked it out of Dago's hand. Before either of them could react, Youngest picked up the tube and ran toward the incinerator, heaving the cookie dough into the incinerator with all of his strength. The heat took his breath away as he

watched the tube hit its mark in the heart of the flames.

Professor Power's eyes widened. "Why did you —" And then he understood. The smell of baking cookies — the best, most delicious cookies ever baked — wafted over them and into the participant cubicles. "No...what have you...CORA, what is happening?"

CORA did not seem to be affected by this turn of events. "There insufficient data as yet to ascertain the — no, I am reading large increases in the effect sizes in this area. It appears to be spreading across the laboratories."

Professor Power frantically paced across the walkway, trying to determine what the participants were doing. "CORA, how big are the effect sizes? Is it...*flair*?"

Just as they were talking, the results display on the tower added another row: *Baumeister et al. (1998)*;

17; 5.7. Professor Power saw it, aghast. “The experiments are running backward, with small sample sizes. CORA, reduce all the alpha levels! Increase the Bayes factor prior scales to compensate!”

CORA shook her head. “The effect sizes are rising too fast for me to adjust.”

Another row was added to the display: *Strack, Martin, & Stepper (1988); 23; 1.3E+2.*

Dago glanced at the board with a smile. “It looks like their meta-analyses are *fucked*.”

Youngest looked across the laboratory area. In the cubicles near them, the participants were pulling themselves out of their suits and detaching themselves from the feeding tubes. “It looks like *everything* is fucked.”

Suddenly an explosion from the top of the tower rocked the walkway on which they stood. Bits of

rubble rained down on them.

“What is happening?” shouted Professor Power to CORA.

“The system was not programmed to handle such large effect sizes.” CORA explained. “I am trying to reroute the primary data analysis flow through the tachyon array —”

Dago had a sudden inspiration: he remembered he still had Dorian’s Replication Mirror. He took it out of his satchel, angling it to reflect the results display on the tower back to CORA. “CORA, look! More data!”

CORA turned to Dago, seeing the statistical results reflected in the Replication Mirror. She froze as she tried to process the new data along with the identical data flowing in through her cybernetic implants. In a sudden fit, her implants blinked on and off, in sync with the results display above them. She collapsed

onto the floor unconscious.

When Professor Power saw CORA fall, he removed his phone from his pocket and made a call. “Yes, have my helicoptR ready. Tower 4, five minutes.” He started off down one of the smaller walkways. Youngest began to pursue him, but Dago called him back.

“Let him go! He’s not important.”

Dago knelt down beside CORA, whose eyes were still closed. Her implants blinked on and off, but her pulse told Dago she was still alive.

“Cora, listen to me...if the Cora I knew years ago is still somewhere...somewhere in this computerised body, please listen. I know you can open the participant cells. Do it, please. This place is going to blow soon; we need to *set them free*.”

While Dago pleaded with Cora, Youngest tried to

reach down to a nearby participant who had freed herself, but the cubicle walls were too high to pull her out from above.

“Cora, please. Open the laboratory doors.” Cora’s eyes opened and after a brief daze, her eyes fixed on Dago’s. She nodded and closed her eyes, her head slumping to one side. Immediately they heard the sound of thousands of doors around them opening: every participant now had a path out of the Fortress.

Another explosion shook the walkway and large chunks of the tower shattered around them. The results display board was registering experiments faster than one could read them — and then, suddenly, was engulfed in flames.

“We have to leave *now*,” yelled Youngest over the din of participants escaping and the explosions in the tower.

Dago lifted Cora over his shoulders and they made



as fast as they could for the open gates at the other end of the central walkway. A great *crack* ripped though the air as the eastern wall of the Fortress buckled up out of the ground. A large section of wall disintegrated into a cloud of dust covering the participants who were spilling out of the resulting gap in the Fortress's now-useless defenses.

They escaped safely through the gate in the north wall. Now out of immediate danger, Dago laid Cora onto the grass beside the path. The trio rested there on the same spot they had been earlier captured by the methodologists' guards. Looking back, Dago and Youngest watched the great tower — compromised two more deafening blasts — finally fall. The methodologist's fearsome project was no more.

Cora regained consciousness. While Dago helped her to her feet, Youngest spotted out an aircraft speeding toward them from inside the Fortress. Professor Power's helicoptR passed over them at high speed, turned sharply into the north, and flew directly into

a mountain with a terrific explosion.

Dago nodded knowingly at Youngest. “And that’s why I always use SPSS.”

*Chapters 42 through 47 are not part of this sample.*



## *Epilogue*

Exhausted, Daniel collapsed into his favourite chair after arriving home late after his retirement party. He had just retired from his role as the founding director of the Institute for Happening Studies at New Harvard University. His retirement party was full of speeches about his time at the Institute, and he was proud to pass the directorship to his student and companion, Professor Youngest. Now alone in the quiet of his apartment, his thoughts turned to the years he was known as Dago after the Happening.

He climbed into his attic, stepping over useless, long-forgotten knick knacks as he looked for a chest he had not opened for years. The open chest greeted him with old friends: his jackknife, torn pages from the Proceedings of the National Academy of Sciences

that had served as his guide, rocks of roughly equal likability...and the satchel given to him by Dorian Primestein the night he died.

Daniel opened the satchel. It still contained some of the supplies Dorian had provided them. He reached inside and felt around for small objects, but his fingers caught an internal pocket he had never noticed before. The pocket contained a small envelope yellowed by age, on which was written simply “To Dorian, from your constant friend.” Curious, Daniel opened the envelope. Inside he found a single sheet of paper, filled on both sides with a handwriting he did not recognise. On the front side of the sheet was a recipe:

*“Chocolate chip cookies*

*“3 cups flour*

*1 1/2 tsp baking soda*

*1 3/4 tsp coarse salt*

*1/2 cup unsalted butter, soft*

*1/2 cup coconut oil*  
*1 1/2 cups light brown sugar*  
*3/4 cup granulated sugar*  
*3 large eggs*  
*1 1/4 tsp vanilla*  
*2 cups chocolate chips*

*“Mix flour, baking soda, and salt in a small bowl and set aside. In separate bowl, add sugars, butter, oil, and beat until integrated. Add eggs and beat until creamy, then add the vanilla. Mix in the flour mixture. Slowly stir in the chocolate chips. Refrigerate for at least an hour, then bake at 375° F on the middle rack for 9 minutes.”*

Daniel turned over the delicate page. Scrawled on the back side in the same handwriting was a poem with no other context.

*For you in crisis*

*the soldier has his enemy  
the sailor has her reef  
on any path before our goal  
are traps concealed beneath*

*the scientist has many foes  
lack, apathy, and time  
but of these forces none compare  
to the limits of her mind*

*no number can unlock us  
from the prison of conceit  
no  $p$  or  $F$ , no interval  
will fix what's incomplete*

*yet still we ask the question:  
is the mind within our grasp?  
or will we ever wander blind  
deceived by fictive graphs?*

*if there is any hope for us  
it must come from without:  
a friend who treats our science  
not with credence, but with doubt*

*so let us be incredulous  
inspect this house we've built  
let no one say our disbelief  
is e'er deserving guilt*

*perhaps in some bright future time  
our doubt shall be repaid  
and stronger science in its place  
as present crises fade*

*the painter has her canvases  
the sculptor, figurines  
but scientists, when at their best  
wed truth with heady dreams*

— Your friend





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