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# I. God and the Devil

# The Last Temptation of Christ

Jesus was led by the Spirit into the desert, where he was tempted by the Devil. After various lesser trials and temptations, the Devil led Jesus to the top of an exceedingly high mountain and showed him all the kingdoms of the world. And they stood there together, gazing upon the vista below.

“Behold,” said Satan, mostly to break the awkward silence, “all the kingdoms of the world.”

“They’re very nice,” said Jesus.

Satan’s features — still faintly angelic — formed into a pout. “Really?” he asked. “Because I worked so hard corrupting them and turning them against one another, and...”

“No,” said Jesus. “Not like that. I was just trying to be polite, really. They’re teeming with sin and abomination.”

Satan beamed. Some more awkward silence.

“So,” said Jesus. “Is this the point at which you offer me lordship over all these kingdoms, if I only I bow down and worship you?”

“Nah,” said Satan. “Like I said, they’re kind of crappy. I’m here to tempt you, not insult you. I was planning something more interesting.”

He waved his hand over the panorama, and it expanded in a hard-to-describe way. The three-dimensional view became four-dimensional; the vista became a manifold.

“Behold,” said Satan again, “all the kingdoms of the world. Now and forever. Before you, the entire scope of history.”

Jesus hesitated, not really sure what the polite response would be.

“You could at least smile!” said Satan. “Look! These people love you!”

Sure enough, it was true. Many of the kingdoms before them were Christian, building great cathedrals and writing beautiful works of theology in Jesus’ name. Among the remainder, many were Muslim, revering him as one of the greatest of prophets.

"It's pretty encouraging," Jesus agreed. "So what's the catch?"

"Always the catch with you people," said Satan. "Well, if you insist. Take a look particularly at the psychiatric hospitals."

Jesus gazed through the manifold, where ten thousand psychiatric hospitals presented themselves simultaneously to his elevated senses.

"As you notice," said Satan "your popularity has had some fascinating side effects. In particular, a pretty good proportion of psychotics, sometime in their illness, think that they're you. I don't think either of us wants to sit here counting them all, but could we agree on a hundred thousand as a conservative estimate?"

"A hundred thousand psychotics who believe themselves to be Jesus Christ, across the entire scope of world history," agreed Jesus. "Sounds reasonable."

"And it's a pretty strong delusion," the Devil went on. "They'd dismiss the contention that they're not you with barely a second thought. Whatever their reasoning processes are, they seem to be bent in on themselves somehow so that they always affirm the conclusion."

"It's very sad," Jesus said. "I hope my Father in Heaven will have mercy upon them."

"That's not what we're here to talk about," said the Devil. "What I'm really interested in is this — given a randomly chosen person who's absolutely certain he's Jesus, what's the probability that he is, in fact, Jesus?"

"Well," Jesus answered "There are a hundred thousand psychotics who believe themselves to be Jesus, and only one real Jesus. So by Bayes' Theorem, we calculate that believing one's self to be Jesus gives one only about a one in one hundred thousand chance that one is actually Jesus."

"Your reasoning is impeccable," said Satan. "So, what is the probability that you're actually Jesus?"

"What?" asked Jesus.

"You are an individual with a certain amount of evidence that you are Jesus. Specifically, you believe yourself to be him. You have various experiences which your reason tells you are consistent with being

Jesus, like memories of your mother Mary and so on, but these seem like the sort of thing a damaged intellect could create to support a delusion. You previously determined that a randomly selected person with the belief that he is Jesus has a 1/100,000 chance of being Jesus and a 99,999/100,000 chance of being a psychotic. So, Mr. Person With The Belief That He Is Jesus, do you think those numbers apply to you?"

Jesus thought for a moment. "I'm not a psychotic," he said. "I think I would know if I were psychotic. I'd have all sorts of symptoms. Hallucinations. Confusion."

"You know what the number one hallucination reported by psychotic patients is?" Satan asked.

Jesus thought for a moment. "What?"

"The Devil," said the Devil.

"Oh, that's just unfair," Jesus told him.

"Usually they report he's trying to tempt them to do self-destructive things. You know, like jump off tall buildings. Remind me what we were doing earlier today?"

"You set that up to confuse me," said Jesus.

"And you mentioned confusion. Tell me, where are we right now?"

"An exceedingly high mountain," Jesus answered.

"Which one, exactly? Because the tallest mountain in Israel is a bit under four thousand feet. That's hardly see-all-the-kingdoms-of-the-world height. Are you even sure what country we're in right now? And, uh, last time I checked I'm almost certain the world was a sphere. So what *particular* mountain do you think we're on that allows us to see all the kingdoms of the world?"

"Uh, well, there are no kingdoms in the Western Hemisphere at this point in history..." suggested Jesus.

"Wrong!" said Satan. "Zapotecs and Mochica! You don't know where you are, you don't know how you got here, and you don't know how you're seeing what you're seeing."

"You took me here," Jesus countered. "I assume you used some sort of

devil-magic or something. I didn't watch where we were going."

"Oh please," said Satan. "Outside View! *In general*, when someone says the only reason they don't know what country they're in is because the Devil is magically clouding their mind, does that make them *more* or *less* likely to be mentally ill?"

"Mrhghn," grumbled Jesus.

"So let's recap. You believe yourself to be Jesus. You admit that you have been seeing the Devil, and that he commands you to jump off buildings, a command you resist only with great difficulty. You don't know where you are or how you got there, and your only weak explanation is that malevolent demons magically transported you there and meddled with your mind so you don't remember it. Using the Outside View, *what is the probability that you are even remotely sane?*"

"Look," said Jesus. "Could you just tell me what the temptation is already?"

Satan waved his hand, and a syringe materialized within it. "5 mg haloperidol, IM" he told him.

Jesus looked at the Devil. He looked at the syringe. He looked at All The Kingdoms Of The World. He looked back at the Devil. His brow furrowed in thought. He looked at the syringe again.

Then his eyes shone as the Holy Spirit flowed through him. His indecision vanished. "Your lies have no power over me, demon," he told his tormentor.

"Please calm down," said Satan, only now he spoke with the voice of a middle-aged woman. "We're just trying to help you, Mr. Anderson. Please just hold still and let me give you your medication."

"Get thee behind me, Satan!" shouted the Christ, and he pushed the Devil off the mountain. Satan screamed as he plummeted, screamed with a woman's voice, until he vanished from sight in the depths below.



# The Girl Who Poked God with a Stick

HOUSE OF MORIMOTO

“THERE ARE A THOUSAND THAT STRIKE AT THE BRANCHES OF EVIL FOR EACH ONE HACKING AT THE ROOTACCOUNT OF THE COMPUTER SIMULATING THE UNIVERSE”

Crest of House Morimoto, granted by God-Emperor Los II in 1795 ASC

Maria Morimoto’s childhood memories are backed up in a data center in an out-of-the-way district of Wave Manifold. They are locked behind a theoretically unbreakable layer of encryption, for which the password is “taatsattboefeohtroatcstu”. She remembers it because it is the first letter of each word in the motto on her family crest, as well as because her brain is a computer made of exotic matter with a memory capacity trillions of times more than of all the world’s silicon computers combined.

If she were really security-conscious, of course, she would use something much stronger. But she likes the thought that a sufficiently smart person could guess her password and see what she was like as a child. She always did have a mischievous streak.

Maria was born in Much Rejoicing, a sanct of ten thousand souls on a platform in the middle of the Straylight Sea. Dante McCallavre had built it centuries ago at a natural weakness in the telluric field that mysteriously limited technological potential. Since then it had paid for itself many times over, as companies and laboratories who hit the telluric barrier in their mainland facilities looked to relocate somewhere more permissive. By the time of Maria’s birth a dozen similar facilities had been built in the oceans surrounding Sxiro, some at even more advantageous spots: Discontinuity was rumored to be the most hypotelluric location in the western hemisphere, though of course scientists differed on the exact measurement protocols. But there was always more demand for hypotelluric land than the platforms could supply, and so Much Rejoicing was both fantastically wealthy and crowded beyond anything a mainlander could imagine.

It was not a good place to be a child. There were no playgrounds, no

green growing things. Maria spent most of her time studying. Everyone in Much Rejoicing was very smart, an employee at a hi-tech conglomerate or an employee's family members. Maria decided at age four that she was smarter than anyone, and never encountered any evidence that made her change her mind. When she could not study another minute, she would play pranks on the maintenance workers, or sit on the edge of the platform and stare into the deep blue waters below.

A prank gone wrong. A transport tube switched from "stop" to "go". An inspector dunked in the ocean, all drenched and silly-looking as he waved his arms. A rare failure of the automated life preserver system, a waterlogged body drawn from the depths a few days later. A few hours of frantic hacking, covering up her access to the transport system. Maria remembers none of this, though it is all there in the data center.

At age sixteen she decided she would be a biochemist, and became the third-youngest student ever accepted to John Metzler University in the great imperial city of Sxiroheim. The capital was strange to her. She had known in theory of the world off the platforms, but as she stared at the lush parks and wide boulevards she realized she had never understood how big and empty the world could be. Every so often she idly wondered what she would fill it all with, when the time came.

She was there for the great telluric shift that struck the capital during the reign of God-Emperor Grifos. The electric trains were mothballed and replaced by steam engines; the cars and trucks relegated to huge lots in the suburbs and replaced with horses imported from Goldenmoon or Riverrun. During the worst days, the electric light in her room would flicker off, and she would study epigenetics by candlelight.

The priests would leave the Multi-Temple in those days and wander around the city, preaching God's punishment upon the people for their sins. But if the telluric shift was God's punishment, what of the telluric field itself? By what authority did God fix a ceiling beyond which the human race could not progress?

When Maria looks back on her life, she finds this is the first time it crosses her mind, even in idle daydreams, to ask whether it was possible to kill God and steal His power.

When she graduated university she returned to the platforms, picking up a pharmaceutical job on Deep Trouble. The project was ambitious:

Amara Pharmaceuticals was working on a cure for death. They were hoping to develop a retrovirus that would introduce a custom-engineered strand of DNA that prevented normal aging, but things kept going wrong. A few people blamed the tellurics, and the project briefly relocated to Discontinuity in hopes of a more favorable result, but they fared no better and eventually moved back to Deep Trouble. It was during the chaos of the second move that Maria accidentally needlesticked herself; pricked herself with a syringe containing experimental materials. She was monitored for a few weeks with no special result, and her superiors assured her there would be no harm in accidentally infecting herself with a virus that didn't work.

Her life settled into a sort of routine. She worked for Amara five years, until they closed the immortality project in disgust, then got a teaching position in Discontinuity for which she was overqualified. She occupied her time learning some of the fields she had previously neglected — history, literature, even some art — and returned to her childhood habit of playing tricks, mostly on her students and lab assistants. Even then, in the years she would remember as the most boring of her life, she kept her mischievous streak.

Those years of boredom ended with a compliment from a sort-of boyfriend she had been dating half-heartedly: "You look amazing for a thirty-two year old." Unlike most of her casual lies, she remembered this one: on a lark, she had claimed to be twenty-nine when they had met three years ago. She was actually forty-three.

Come to think of it, she did look amazing. A few weeks in the lab confirmed her suspicion: she was infected with an active form of the immortality virus. She thought about contacting Amara Pharmaceuticals for exactly zero seconds. Instead she invested most of her savings in very-long-term bonds and downloaded some books on how to get a fake identity. A month later she flew to Goldenmoon, the most hypotelluric you could get without leaving Sxiro, and told them she had lost her birth certificate. An easily bribed village elder later, she had a fancy piece of parchment confirming her completely fictitious identity as a nineteen year old girl. If the infection dated from her needlestick she was biologically twenty-three, but the younger she made herself the longer it would be before she had to repeat the process.

For her second life she chose Pohjankaupunki, a sanct only about a hundred miles off the coast of Iardix. Bored with the idea of another lifetime of biochem, she reinvented herself as a hacker, learning

programming and eventually getting a job in C.O.S.A.C.'s cybersecurity division. In her free time, she amused herself by day-trading and by hacking Amara Pharmaceuticals and causing them to lose all their backup data from the immortality drug in an "unavoidable accident". She was going to have *so much fun* and she didn't want some boring stuffy corporation to ruin it with a fortuitous discovery.

Another trip to Goldenmoon; luckily the village elder's son was as corrupt as his father had been. This time she went to Audente, the first city in the world, the place where they had discovered technology. It was even bigger than Sxiroheim, and the tellurics were better, so that on a good day the maglev could bring her anywhere in the city in minutes. She spent this particular lifetime as a courtesan on the even-numbered days and a naval engineer on odd-numbered ones. The incongruity amused her. They say she helped develop the basic design for the *Queen of Night's Repentant Children* for the great admiral Rahanorion-nomai in a single afternoon, then had wild sex with her the next day.

Another trip to Goldenmoon; the village elder's grandson had developed a remarkable case of honesty, forcing her to take an eight mile detour by ox-cart to the village next door. She was now a hundred twenty years old but continued to look twenty-three. She settled in Nafticon but her attempts to become a fighter pilot were cut short by the news — still considered an amusing cosmetic oddity rather than a significant scientific anomaly — that there was a small cadre of men and women in Audente who had apparently been blessed with youthful good looks well into their middle age. Hijacking an Antican genetics lab, Maria confirmed her suspicion: the active immortality virus was sexually transmitted. After considering her options, she went with the most exciting: she withdrew some of her quickly-growing fortune in long-term bonds, acquired some very specific and highly illegal training from the Atterans, moved back to Audente, and gradually assassinated everyone she had ever slept with. She found it was more interesting than naval engineering and more fun than sex. To put the finishing touch on her security, she bought out Amara Pharmaceuticals, mothballed the entire genetics division, and switched their product line to focus entirely on hair care. To her amusement, profits doubled.

Another trip to Goldenmoon. Although she now realized she was lacking some kind of important morality gene, it might have been some inner loathing, some desire for self-annihilation, that drove her to Brzgrad to study tellurology. Everyone agreed that it was only a

superstition that tellurologists always died early and highly irregular deaths. It was just a superstition that occurred independently across every known culture; one so widely believed no insurance company in the world would sell a policy to a tellurologist. And yet Maria flew across the sea to Brzgrad to study with Stjepan Ekarovic, the acknowledged expert in the field, and worked beside him for two years until his death by falling debris during a freak tornado. When none of his other students appeared eager to continue his research, Maria volunteered for the job.

No one knew exactly what the telluric field was. It had existed at least since written history began two thousand years ago in Audente. No one thought it was natural: no natural force could have quite the precision to snipe technology while leaving biological and natural processes completely untouched. And then there was the astoundingly high mortality rate in the tellurological professions, as if it were actively trying to avoid being studied.

But who had built such a thing? Maria was well aware her civilization had not been the first to exist upon the world. There was an archipelago of floating islands in the southern hemisphere; the largest was about two hundred miles across and hung suspended some two miles above the sea. Somebody must have put them there. But it was hard to believe any civilization, even one capable of hanging islands from the sky like pearls from a necklace, could have created the field. Most people said, reasonably enough, that God had done it. Some said the telluric field was God.

Maria spent a hundred years in Brzgrad, longest she'd ever stayed in one place. During that period, she made exactly one original discovery, which was that she ruined any telluric experiment she touched. At first she thought it was uncommon clumsiness. Finally she decided it was something more interesting. Her body negated that telluric field. No one else she studied had this effect, and the phenomenon proved totally resistant to study. Her memories record stimulant-fueled weeks of experiments, followed by periods of miserable withdrawal, cursing God and science alike. When she smashed up a room of priceless equipment in a rage, she gave up and returned to Discontinuity in disgust.

These were the early years of God-Emperor Los II, and they were years of boredom and frustration for Maria. Her studies had been a failure; her murders, which bothered her in waking life not at all, nevertheless darkened her dreams. She began trying to take over the world, almost

for lack of any pastime. By now her investments had matured, and with them she bought a crest and noble title, becoming the Countess of Discontinuity. She found the rest of the nobility to be either pompous fools or self-important businessmen, and within a generation she had become a Duchess. Within two, her “daughter and heir” had won a Praetorship. The stories about her relationship with God- Emperor Ari i Ly’Technomaezj Kaukainen are extraordinarily garbled, but it seems beyond doubt that she seduced him (or vice versa?) at least once. But that was the apex of her political career. Something, perhaps having no higher to climb, perhaps some clue she garnered from one of the mystery cults surrounding the God-Emperor, drove her from Sxiroheim. She returned to Discontinuity and began studying tellurology with renewed vigor.

After less than a year, she realized what should have been obvious from the beginning: her equations had failed because she had simply assumed that there was only one telluric field. There were two of them, weakly interacting with each other. The first telluric field perfectly predicted the behavior of technology. The second did... what?

It was around this time she started taking more seriously the old stories of magic and witchcraft. There had always been legends — of So-Sara, of Til Iosophrang — but she had always assumed they were just legends. She had always thought, like most Sxirans, that the Gralans’ reports of their own magic just proved they were superstitious and easily deluded. A quick visit to Skoitamashu convinced her otherwise. Their powers were minor, useful only to delight the easily impressed but they were not trickery.

The first telluric field limited technology. The second telluric field limited magic. The Sxirans had always assumed magic didn’t exist. The evidence said it didn’t exist now, at least not outside limited hypodeuterotelluric pockets. The nadir of the first telluric field was Discontinuity. The nadir of the second was... where?

Maria built a new sanct, Full Circle, upon a placid stretch of black water of ill reputation among sailors. There she founded Amara Advanced Projects, bringing together the researchers she had rescued from a life designing hair care products with magic users she recruited from Skoitamashu. There she began translating the old texts engraved on abalone shells that sometimes washed up on the beaches near Sara-Nyl. And there, for the first time, someone outside the old So-Saran mystery cults discovered technomagic, the practice of building machines that oscillate between technological and magical components



at the resonant frequency of the telluric fields. And so it was at Full Circle that Maria Morimoto developed the holy grail: atelluric components that allowed arbitrary levels of technological advancement.

Everyone had always known that subversion of the telluric fields would lead to a technological singularity within a hundred years. Maria did it in sixty. During the second year of the reign of God-Emperor Mors VI, she uploaded her brain to a computer of exotic matter, folded Full Circle into a pocket dimension, and became a goddess.

In retrospect she agrees she may have gone overboard, in those early days of divinity. She always did have a mischievous streak. Turning the God-Emperor into a chicken was hilarious at the time, but when Eluin used it as an excuse to revolt, the entire Sxiran Empire was plunged into half a century of civil war.

Worse, God had done nothing. She had expected that her newfound divinity would, if nothing else, be sufficient to finally get a good view of her enemy, but there was nothing. She started acting ever more outrageously in the hope of provoking some, any response that proved He was there and watching her. She had been sure that creating Cibola would catch His attention, but even the overnight appearance of an entirely new continent had failed to cause any sort of divine action.

So she decided to poke God with a stick and see what happened.

In the twentieth year of the reign of God-Emperor Reynardine II, she hacked into the telluric field. She met no resistance. Her divine technomagic cut through it as if it were warm butter. It fell into her lap. At age three thousand ninety, she held complete power over the telluric field covering the planet. She wondered whether the field's creators abandoned it, just as the flying islands in the south had been abandoned. Or whether God had grown so tired of His responsibility that He was all too happy to hand it over to the first person willing to accept it, whether He was glad to get the field off His hands.

So Maria destroyed the world. Partly it was to see what would happen. Partly it was to provoke some kind of response from God. But mostly it was to see if she could do better, create something where the telluric fields promoted rather than inhibited human potential, something without all the war and suffering and overwhelming boredom.

And she failed. Failed completely. Omi Oitherion, her chosen Messiah,

went insane a few years into the process and bungled his role. Every time she tried to intervene, people became dependent on her and blamed her when things went wrong. Every time she didn't intervene, nations died, families died, people died, and they all died cursing her name. Without the telluric field to stop them, various idiots started their own singularities and made her expend a constant proportion of her energy fighting off deranged godlings. It became so bad that she consigned Pelagia, her new world, her chosen utopia, to the flames and rebooted the old world from backup copies.

She could almost kiss it. The grim walls of Sxiroheim, the shining towers of Raikoth, even the filth-strewn ziggurats of Kamalshahr. She resolves to be a better goddess from now on, and starts playing a new game. A game of doing the most with the slightest effort. A whisper here, a leaf falling there slightly out of turn. Can she prevent a war? Overthrow a despot? Even with her immense computational power, the challenge is fiendishly difficult. But it pays off; the fumbling disasters of earlier years decrease and eventually disappear. For the first time, she starts feeling almost content. She will have many millennia to fill the empty spaces, one falling sparrow at a time.

Her contentment lasted about a month until she took the obvious next step and started monitoring whispers and leaves and sparrows. Slight but statistically significant anomalies. How many layers of gods were there above her? How old were they? How long had they had to perfect their craft? She started obsessively monitoring the exotic-matter circuitry that forms her brain. Several particles were out of place. As soon as she began monitoring, the deviations disappeared, at least as far as she could observe. But how much was going on beneath the Planck barrier, invisible to her merely divine senses?

Grim determination renewed, she decided she needed more power. She left Full Circle for Nelaga, the largest of the flying islands, where she spent fifty years, obsessively trying to puzzle out its secrets. In its hidden heart she found technomagical engines similar to her own but light-years more advanced. At a glance she grasped the outline of their structure. She could not make technomagic like this, not yet. But she had an idea what it could do.

Suspend gravity. Break the Planck barrier. Warp space. Pass the speed of light. Go backward in time. *Go backward in time.*

There inside Nelaga, she started to get a sinking feeling that she knew who created the telluric force, and why. It would explain a lot. Why she

negates telluric fields. Why she was the only person the immortality virus could touch. Why she was allowed to study tellurology without incident. Why no one resisted her hostile takeover of the universe. Who keeps meddling with her. Who founded the So-Saran mystery cults. Why the technomagical engines in the flying islands look so similar to her own. How much of the history of civilization has been her colossal prank on her past self? She would like to think that the universe has been something more than her attempt to drive away boredom, something more than her own private causal loop, but she sees no evidence for this hypothesis. And she always did have that mischievous streak...

## Answer to Job

(with apologies to [lung](#))

Job asked: “God, why do bad things happen to good people? Why would You, who are perfect, create a universe filled with so much that is evil?”

Then the Lord spoke to Job out of the whirlwind, saying “WHAT KIND OF UNIVERSE WOULD YOU PREFER ME TO HAVE CREATED?”

Job said “A universe that was perfectly just and full of happiness, of course.”

“OH,” said God. “YES, I CREATED ONE OF THOSE. IT’S EXACTLY AS NICE AS YOU WOULD EXPECT.”

Job facepalmed. “But then why would You also create *this* universe?”

Answered God: “DON’T YOU LIKE EXISTING?”

“Yes,” said Job, “but all else being equal, I’d rather be in the perfectly just and happy universe.”

“OH, DON’T WORRY,” said God. “THERE’S A VERSION OF YOU IN THAT UNIVERSE TOO. HE SAYS HI.”

“Okay,” said Job, very carefully. “I can see I’m going to have to phrase my questions more specifically. Why didn’t You also make *this* universe perfectly just and happy?”

“BECAUSE YOU CAN’T HAVE TWO IDENTICAL INDIVIDUALS. IF YOU HAVE A COMPUTATIONAL THEORY OF IDENTITY, THEN TWO PEOPLE WHOSE EXPERIENCE IS ONE HUNDRED PERCENT SATURATED BY BLISS ARE JUST ONE PERSON. IF I MADE THIS UNIVERSE EXACTLY LIKE THE HAPPY AND JUST UNIVERSE, THEN THERE WOULD ONLY BE THE POPULATION OF THE HAPPY AND JUST UNIVERSE, WHICH WOULD BE LESS GOOD THAN HAVING THE POPULATION OF THE HAPPY AND JUST UNIVERSE PLUS THE POPULATION OF ONE EXTRA UNIVERSE THAT IS AT LEAST SOMEWHAT HAPPY.”

“Hmmmm. But couldn’t You have made this universe like the happy and just universe except for one tiny detail? Like in that universe, the

sun is a sphere, but in our universe, the sun is a cube? Then you would have individuals who experienced a spherical sun, and other individuals who experienced a cubic sun, which would be enough to differentiate them.”

“I DID THAT TOO. I HAVE CREATED ALL POSSIBLE PERMUTATIONS OF THE HAPPY AND JUST UNIVERSE AND ITS POPULACE.”

“All of them? That would be...a lot of universes.”

“NOT AS MANY AS YOU THINK.” said God. “IN THE END IT TURNED OUT TO BE ONLY ABOUT  $10^{(10^{(10^{(10^{984})})})}$ . AFTER THAT I RAN OUT OF POSSIBLE PERMUTATIONS OF UNIVERSES THAT COULD REASONABLY BE DESCRIBED AS PERFECTLY HAPPY AND JUST. SO I STARTED CREATING ONES INCLUDING SMALL AMOUNTS OF EVIL.”

“Small amounts! But the universe has...”

“I WAS NOT REFERRING TO YOUR UNIVERSE. I EXHAUSTED THOSE, AND THEN I STARTED CREATING ONES INCLUDING IMMENSE AMOUNTS OF EVIL.”

“Oh.” Then: “What, exactly, is Your endgame here?”

“I AM OMNIBENEVOLENT. I WANT TO CREATE AS MUCH HAPPINESS AND JOY AS POSSIBLE. THIS REQUIRES INSTANTIATING ALL POSSIBLE BEINGS WHOSE TOTAL LIFETIME HAPPINESS IS GREATER THAN THEIR TOTAL LIFETIME SUFFERING.”

“I’m not sure I understand.”

“YOUR LIFE CONTAINS MUCH PAIN, BUT MORE HAPPINESS. BOTH YOU AND I WOULD PREFER THAT A BEING WITH YOUR EXACT LIFE HISTORY EXIST. IN ORDER TO MAKE IT EXIST, IT WAS NECESSARY TO CREATE THE SORT OF UNIVERSE IN WHICH YOU COULD EXIST. THAT IS A UNIVERSE CONTAINING EVIL. I HAVE ALSO CREATED ALL HAPPIER AND MORE VIRTUOUS VERSIONS OF YOU. HOWEVER, IT IS ETHICALLY CORRECT THAT AFTER CREATING THEM, I CREATE YOU AS WELL.”

“But why couldn’t I have been one of those other versions instead!”

“IN THE MOST PERFECTLY HAPPY AND JUST UNIVERSE, THERE IS NO SPACE, FOR SPACE TAKES THE FORM OF SEPARATION FROM THINGS

YOU DESIRE. THERE IS NO TIME, FOR TIME MEANS CHANGE AND DECAY, YET THERE MUST BE NO CHANGE FROM ITS MAXIMALLY BLISSFUL STATE. THE BEINGS WHO INHABIT THIS UNIVERSE ARE WITHOUT BODIES, AND DO NOT HUNGER OR THIRST OR LABOR OR LUST. THEY [SIT UPON LOTUS THRONES](#) AND CONTEMPLATE THE PERFECTION OF ALL THINGS. IF I WERE TO UNCREATE ALL WORLDS SAVE THAT ONE, WOULD IT MEAN MAKING YOU HAPPIER? OR WOULD IT MEAN KILLING YOU, WHILE FAR AWAY IN A DIFFERENT UNIVERSE INCORPOREAL BEINGS SAT ON THEIR LOTUS THRONES REGARDLESS?"

"I don't know! Is one of the beings in that universe in some sense *me*?"

"THERE IS NO OBJECTIVE COSMIC UNEMPLOYMENT RATE."

"Huh?"

"I MEAN, THERE IS NO MEANINGFUL ANSWER TO THE QUESTION OF HOW MANY UNIVERSES HAVE A JOB. SORRY. THAT WILL BE FUNNY IN ABOUT THREE THOUSAND YEARS."

"Let me try a different angle, then. Right now in our universe there are lots of people whose lives aren't worth living. If You gave them the choice, they would have chosen never to have been born at all. What about them?"

"A JOB WHO IS AWARE OF THE EXISTENCE OF SUCH PEOPLE IS A DIFFERENT JOB THAN A JOB WHO IS NOT. AS LONG AS THESE PEOPLE MAKE UP A MINORITY OF THE POPULATION, THE EXISTENCE OF YOUR UNIVERSE, IN ADDITION TO A UNIVERSE WITHOUT SUCH PEOPLE, IS A NET ASSET."

"But that's monstrous! Couldn't You just, I don't know, have created a universe that looks like it has such people, but actually they're just p-zombies, animated bodies without any real consciousness or suffering?"

" ... "

"Wait, *did* You do that?"

"I AM GOING TO PULL THE 'THINGS MAN WAS NOT MEANT TO KNOW' CARD HERE. THERE ARE ADVANTAGES AND DISADVANTAGES TO THE APPROACH YOU MENTION. THE ADVANTAGES ARE AS YOU HAVE SAID. THE DISADVANTAGE IS THAT IT TURNS CHARITY TOWARDS



SUCH PEOPLE INTO A LIE, AND MYSELF AS GOD INTO A DECEIVER. I WILL ALLOW YOU TO FORM YOUR OWN OPINION ABOUT WHICH COURSE IS MORE ETHICAL. BUT IT IS NOT RELEVANT TO THEODICY, SINCE WHICHEVER COURSE YOU DECIDE IS MORALLY SUPERIOR, YOU HAVE NO EVIDENCE THAT I DID NOT IN FACT TAKE SUCH A COURSE.”

“Actually, I do have some evidence. Before all of this happened to me I was very happy. But [in the past couple years](#) I’ve gone bankrupt, lost my entire family, and gotten a bad case of boils. I’m pretty sure at this point I would prefer that I never have been born. Since I know I myself am conscious, I am actually in a pretty good position to accuse You of cruelty.”

“HMMMMMMMM...” said God, and the whirlwind disappeared.

Then the Lord gave Job twice as much as he had before, and healed his illnesses, and gave him many beautiful children, so it was said that God had blessed the latter end of Job more than his beginning.

*[EDIT: [According to comments](#), this was [scooped](#) by a Christian philosopher five years ago. Sigh.]*

# Reverse Psychology

*[Content warning: suicide]*

I.

It all started when I made that phone call.

I was really bad. All the tenure-track positions I'd applied to had politely declined, and I saw my future in academia gradually slipping away from me. Then the night before, my boyfriend had said he thought maybe we should start seeing other people. I didn't even know if we were broken up or not, and at that point I couldn't bring myself to care. I sat on my bed, thinking about things for a while, and finally I called the suicide hotline.

"Hello?" a woman's voice answered on the other side. Somehow, just hearing someone else made me feel about five times better.

"Hello," I said, a little more confidently. "I've been thinking of committing suicide. I need help."

"Okay," she said. "Is there a gun in your house?"

"No."

"All right. The first thing you need to do is get one. Overdosing on pills is common, but it almost never works. You can get a firearm at almost any large sporting goods store, but if there aren't any near you, we can start talking about maybe jumping from a high..."

"What the HELL?" I interrupted, suddenly way more angry than depressed. "You're supposed to @#!\$ing tell me not to do it!"

"This is the suicide hotline," the woman said, now sounding confused. Then, "Are you sure you weren't thinking of the suicide *prevention* hotline?"

"Give me a break! I took a psychology class in undergrad, I know what a suicide hotline is!"

"I'm sorry you seem to be upset. But this is the suicide hotline. It's like how there's the Walk For Breast Cancer, but also the Walk Against

Breast Cancer.”

“There’s the what? But...I was *in* the Walk For Breast Cancer! I thought...”

“It sounds like you have some issues,” said the woman, politely.

“Ugh,” I said. “Yeah.”

“Do you feel like you need professional help?”

“Yeah.”

“I do have a free clinic with an opening available tomorrow at three PM, would you like me to slot you in for an appointment?”

So you’re probably wondering why in the world I would take an appointment arranged by the suicide hotline that wasn’t a suicide prevention hotline. The answer is – were you even listening? A free clinic? With an appointment available the next day? Normally I was lucky if I found a place with an opening in less than two months and a co-pay that wasn’t completely ruinous. You *bet* I was taking that appointment before someone else snatched it up.

Dr. Trauer’s office looked gratifyingly normal. There was a houseplant, a diagram of the cranial nerves, some Abilify® merchandise, and on the wall one of those Magic Eye stereographic images that resolved into a 3D picture of the human brain. Dr. Trauer himself looked like your average doctor – a little past middle age, a little overweight, a short greying beard. He motioned me to sit down and took the paperwork I’d been filling out.

“Hmmm,” he said, reading it over. “29 years old, postdoc in biochem, recent relationship trouble...mmm...you did the right thing.”

“In coming here?”

“No, in considering suicide. After getting rejected from a tenure-track position, your life is pretty much over.”

“WHAT?”

“I mean, here you are, hundreds of thousands of dollars in debt, with only one area of expertise, and now you’ve been rejected from it. I can totally see why you might think it’s worth ending it all.”

"But...there are lots of other things I can do! I can get a job in industry! I can work in something else! Even if I can't find a job right away, I have parents who can help support me."

"Industry!" Dr. Trauer was having none of it. "A bunch of bloodsuckers. Do you realize how bad work in the private sector is these days? They'll abuse you and then spit you out, and once you've been out of university too long nobody else will want you."

"Lots of people want biochemists! If I work for a company for a few years, I'll have more experience and maybe that will make me more attractive to employers! What...what kind of a psychiatrist *are* you, anyway?"

"Cindy didn't tell you?"

"Cindy?"

"The woman on the phone."

"She didn't really tell me anything!"

"Well," said Dr. Trauer. "To answer your question, we're dark side psychiatrists. This is the state's only dark side psychiatry clinic."

"Dark side psychiatry? *Really?*"

"We're a...well, some people say sect, but I like to think of it as more of a guild...dedicated to improving negative mental health. Think of it this way. When you're a hijacked murder-monkey hurtling toward your inevitable death, sanity is a completely ridiculous thing to have. And when the universe is fifteen billion light-years across and almost entirely freezing void, the idea that people should have 'coping skills' boggles the imagination. An emotionally healthy person is a person who isn't paying attention, and our job is to cure them."

"There's more than one of you?"

"Oh, yes. There's a thriving dark side psychiatric community. There are dark side psychopharmacologists – you'd be amazed what a few doses of datura can do to a person. There are dark side psychotherapists who analyze and break down people's positive cognitions. There are dark side child psychiatrists who catch people when they're young, before sanity has had a chance to take root and worsen. And there are dark side geriatric psychiatrists, who go from nursing home to nursing

home, making sure that the elderly are not warehoused and neglected at exactly the time it is most important to ensure that stroke or dementia does not protect them from acute awareness of the nearness of death."

"That's awful!" I said.

"Is it? Look where sanity's gotten you. You want to kill yourself, but you don't have the courage. Work with me for ten sessions, and I promise you we can help you *get* that courage."

"You're a @#!\$ing quack," I said. "And if you think killing yourself is so great, how come you haven't done it yourself yet?"

"Who says I haven't?" asked Dr. Trauer.

His hand went to his face, and he plucked out his right eye, revealing an empty void surrounded by the bleached whiteness of bone. I screamed and ran out of the clinic and didn't stop running until I was in my house and had locked the door beside me.

II.

"...and that's pretty much the whole story, doctor," she told me. "And then I looked to see if there were any *real* psychiatrists in the area and someone referred me to you."

"Well," I said, my face unreadable. "I can certainly see why you're complaining of, how did you put it, 'depression and acute stress disorder'."

"Not so acute anymore. It took me two months to get an appointment at your clinic."

"Oh," I said. Then, "Sorry, we're sort of backed up." Then, "Okay. We've got a lot we have to work on here. Let me tell you how we're going to do it. We're going to use a form of therapy that challenges your negative cognitions. We're going to take the things that are bothering you, examine the evidence for them, and see if there are alternative explanations."

"What do you mean?" she asked.

"Well," I said. "It seems to be this Dr. Trauer incident that's traumatized you a lot. I can see why you would be stressed out. The way you tell it,

it sounds absolutely terrifying.”

“You don’t believe me,” she said, not accusatory, just stating a fact.

“I think it would be helpful to examine alternate explanations,” I said. “I’m willing to assume it happened exactly as you tell it. I can see why you would think Dr. Trauer wanted you to commit suicide. But are there any alternative explanations for the same event?”

“I don’t see how there can be,” she said. “He outright said that he thought I should kill myself.”

“Right. But from what you know of psychiatrists and therapy – and you did say you took some classes in undergrad – are there any other reasons he might have said something like that?”

She thought for a second. “Wait,” she told me. “There’s a technique in therapy called [paradoxical intention](#). Where you take a patient’s irrational thought, and then defend and amplify it. And then when the patient hears it from someone else, she realizes how silly it sounds and starts arguing against it, and then it’s really hard to keep believing it after you’ve shot it down yourself.”

I nodded. “That’s definitely a therapeutic method, and sometimes a very effective one. Do you have any evidence that this is what Dr. Trauer was doing?”

“Yes! As soon as he said I should commit suicide, I started arguing against him. He told me that if I couldn’t get a tenure track position there would be no other jobs available, and I told him there would be! Then he told me that the jobs would be terrible and I’d never be able to make a happy life for myself with them, and I argued that I would! That must have been what he was going for!”

She suddenly looked really excited. Then, just as suddenly, the worry returned to her face.

“But then what happened with his eye? I swear I saw him take it right out of the socket.”

I nodded. “Can you think of any alternate explanations for that?”

Thinking about it that way, it only took her like five seconds. She slapped her head like she’d been an idiot. “A glass eye. He probably had some kind of injury, had to put in a glass eye, and could take it out any



time he wanted. He must have thought it would be a funny gag and didn't realize how traumatized I'd be. Or he wanted to scare me into realizing how much I wanted to live. Or something."

I nodded. "That does sound like a reasonable explanation."

"But...don't people with glass eyes usually have like scar tissue and normal skin behind them? This guy, I swear it was just the bone and this empty socket, like you were seeing straight to his skull."

"You're asking the right questions," I said. "Now think a little more."

"Hmmm," she said. "I guess I was really, really stressed out at the time. And I only saw it for, like, a fraction of a second. Maybe my brain was playing tricks on me."

"That can definitely happen," I agreed.

She looked a lot better now. "I owe you a lot of thanks," she said. "I've only been here for, like, fifteen minutes, and already I think a lot of my stress has gone away. All of this really makes sense. That paradoxical intention thing is actually kind of brilliant. And I can't deny that it worked – I haven't been suicidal since I talked to the guy. In fact...okay, this is going to sound really strange, but...maybe I should go back to Dr. Trauer."

I wrinkled my forehead.

"It's not that I don't like you," she said. "But he had this amazing free clinic, and what he did for me that day...now that I realize what was going on, that was actually pretty incredible."

"Hold on a second," I said.

I left the room, marched up to the front desk, took the directory of medical providers in the area off the shelf, marched back to the room. I started flipping through the pages. It was in alphabetical order...Tang...Thompson...[Tophet](#)...there we go. Trauer. My gaze lingered there maybe just a second too long, and she asked if I was okay.

"Um, yeah," I said. "It's just that he doesn't – he doesn't take your insurance. That's the problem."

"It's okay," she told me. "He said it was a free clinic. So that shouldn't be a problem."

"Well, uh...the thing is...when you see out-of-network providers, your insurance actually charges, charges an extra fee. Even if the visit itself is free."

She looked skeptical. "I've never heard of that."

"It's new. With Obamacare."

"Really? How high a fee is it?"

"It's...um...ten thousand dollars. Yeah, I know, right? Thanks, Obama."

"Wow," she said. "I definitely can't afford that. I guess I'll keep coming here. Not that there's anything wrong with that. You've been very nice. It's just that...with Dr. Trauer...well...sorry, I'll stop talking now. Thanks a lot, doctor." She stood up and shook my hand before heading for the door. "Seriously, I can't believe how much you've helped me."

No, I thought, as she departed *you can't*. I told her she was asking the right questions, and she was, but not all of them.

For example, *why would a man with only one working eye have a stereographic Magic Eye image in his office?*

I picked up my provider directory again, stared a second time at the entry for Dr. Trauer. There was a neat line through it in red pen, and above, in my secretary's careful handwriting, "DECEASED".

Before returning the directory to the front desk, I took my own pen and added "DO NOT REFER" in big letters underneath.

# Might Not, Technically, Have Happened

Mr. Murphy sat on his chair and fidgeted nervously. I sat on mine, hidden in the back corner, doing the same.

I was on rotation with Dr. Tophet, who strenuously objected to having a student. The matter had gone back and forth, with the doctor telling administration that he was a very busy man, and administration telling the doctor that everyone was busy, and that this was a teaching hospital, and that it would take at least fifteen minutes' work for them to find anyone else. For a few days it had seemed like an irresistible force encountering an immovable object. But as always, the reluctance of the administration to do work won out, and Dr. Tophet agreed I could shadow him as long as I promised to sit in a corner and say nothing. So there I sat, quiet and fidgeting.

Mr. Murphy was even less at ease. He had come in last Monday with a history of worsening episodes of depression, rage, and confusion. They'd taken some blood and offered to call him in a few days when the test results were in. Instead, he was told to come to Dr. Tophet's office. That could only mean one thing. Good test results were delivered by phone; bad test results were delivered in person, everyone knew that. Things were not looking good for Mr. Murphy.

"Mr. Murphy," said Dr. Tophet, walking into the room. He shook the man's hand. Dr. Tophet was tall, dark, and vaguely foreign-looking, although I didn't know exactly where he was from. He spoke rarely, and with a slight accent. He did not so much as give me a glance before sitting down and taking out the patient's chart.

"Mr. Murphy, have you ever heard of pneumatoma?"

Mr. Murphy shook his head. The diseases with Greek names, the ones you'd never heard of, they were always the worst.

"In layman's terms, Mr. Murphy, you have soul cancer."

The patient blinked. Opened his mouth a little. Closed it. "Soul cancer? What?"

“Stage two pneumatoma,” said Dr. Tophet. “A highly advanced, malignant form of soul cancer.”

“What? That’s crazy!”

“I’m sorry, but the blood tests confirm it. There’s no room for doubt. It’s pneumatoma.”

“You’re making that up.”

“It’s natural to be angry or in denial when you hear difficult news. If you would prefer to have a few days to reflect before we talk further, I can give you another appointment on Tuesday.”

“No,” said Mr. Murphy. “I’m not saying I don’t believe I have numo... numa... soul cancer. I just never heard of such a thing. How can a soul get cancer?”

“Almost any part of the body or spirit can develop cancer, Mr. Murphy. You’ve probably heard of breast cancer, prostate cancer, and lung cancer, but there are hundreds of types only the specialists know about. Angiosarcoma blood vessel cancer. Osteosarcoma — cancer of bone. Medullablastoma — cancer of embryonic brain remnants. And pneumatoma — cancer of the soul. All very rare. I’m sorry you have to be the one to get it, Mr. Murphy.”

“So doctors know about the soul?”

“We would hardly be doing our job if we missed an entire organ. Pneumatology is decades old and on sound scientific footing.”

“Soul cancer,” he said, testing out the words. “Soul cancer. Bloody hell. Is it dangerous?”

“Very,” said Dr. Tophet. “After it reaches a certain size, it will metastasize to other organs and eventually kill you. But don’t worry. This is one of the top hospitals for treating soul cancer in the country, and I promise you we won’t let you go without a fight.”

Mr. Murphy looked utterly miserable.

“What’s the treatment?”

“For stage two, I’m afraid I have to recommend a radical pneumatonectomy.”

“Radical... pneumatonectomy?”

“We take out your soul through your nose.”

Mr. Murphy literally jumped out of his chair.

“You can... remove the soul... through the nose?”

“It’s not so surprising,” said Dr. Tophet. “Do you say ‘God bless you!’ when someone sneezes? It comes from the old belief that a sufficiently powerful sneeze might blow the soul out through the nose, and that a prayer was necessary to make sure God helped it back into its rightful place. Of course, the custom itself is only superstition: a normal sneeze is hundreds of times too weak to actually dispel the soul. But the principle behind it is sound, and with modern surgical technique there should be minimal trauma and no pain.”

“But... what happens to me... without my soul?”

Dr. Tophet stood up and went to his bookshelf. He passed by books with titles like Encyclopedia of Parapsychiatry and British Journal of Radiation Ontology until he came to one entitled Pneumatotomy — History and Practice, which he took down, opened to a bookmarked page, and handed to his patient. I couldn’t see any of the text, just Mr. Murphy’s head, occasionally nodding.

“The soul,” declared Dr. Tophet, “is what we call a vestigial organ. It’s like the appendix. In the past, it was important for appreciating beautiful music and poetry, communing with the grandeur of nature, experiencing true love, and guiding our moral decisions. But in these days of rap music, nature replaced by endless suburbs, and no-fault divorce? And how many people nowadays do you see reading poetry? Most of my patients get through their pneumatonectomy without even noticing the difference. I have one patient who’s three years post pneumatonectomy and is now head of a major bank.”

“What about my morals? Will I become a, you know, a psychopath?”

“Oh no. Most of what you call ‘morality’ is just following convention, avoiding punishment, worrying what the neighbors will think. The contribution of your actual soul is so minor as to be unnoticeable. You’ll be fine.”

“And...” Mr. Murphy looked a bit bewildered, a bit out of his depth. A deer in the headlights sort of expression. “And what about, you know,

after I die. If I don't have a soul, do I still go to, you know, the afterlife?"

The doctor narrowed his eyes. "Mr. Murphy, I am a busy man. I don't know if you realize the gravity of your condition, but please, try to stay serious."

With a pleading but-what-did-i-do-wrong look in his eyes, Mr. Murphy went silent, totally defeated.

"Tell you what, Mr. Murphy. I'm going to give you the consent form for the operation. You can look it over at your leisure in the waiting room. My medical student will help you out if there is anything you don't understand. When you've finished, you can sign the form and give it to my secretary. Here's a pen, you can return that to my secretary too. Once you've signed the form, we can schedule a date for your operation."

Mr. Murphy nodded.

"Uh, sorry," I said. "I really don't know anything about soul cancer. Maybe you should..."

"Then this would be a good time to learn," said Dr. Tophet. "I am going to work on charts for the rest of the day. I'll see you tomorrow morning. Mr. Murphy, thank you for your time."

His tone of voice did not invite question or comment, and without even rising to shake hands he took the book from Mr. Murphy, replacing it on his shelf between *The History and Metaphysical Exam* and an old, decaying book whose title had faded but which was authored by a "Dr. Alhazred". Then he took a chart from the pile beside his desk and started scrutinizing it."

"Uh, come with me," I told Mr. Murphy. "I'll show you to the waiting room."

Actually, I wasn't sure where the waiting room was. I'd never been in this wing of the hospital before. I assumed I could find it, though, an assumption that was immediately proved embarrassingly wrong. I caught sight of a row of signs with relief. One pointed to the waiting room, another to a cafeteria, and another to...

"It says the office of the hospital chaplain is that direction," said Mr. Murphy. "Do you know him?"



"Never met him," I say.

"If you don't mind... do you think Dr. Tophet would mind if I had a talk with him. Because of souls and all?"

"I'm sure he wouldn't," I said, though in fact I very much doubted my ability to predict the doctor's actions and he seemed like the easily offended sort. Still, Mr. Murphy seemed pretty upset, and to be honest I was upset as well. I'd never heard of soul cancer, I was pretty sure there was no such thing, and I wanted some answers. And if there was one profession adept at giving answers, with certainty, about entities that didn't exist, it was the clergy.

"Please, sit down," said Father Mahony, after Mr. Murphy had told his story. "Can I see the form? The consent form? Thank you." He accepted the several pages of stapled documents, along with Dr. Tophet's rather fancylooking pen, and scrutinized them carefully. He started underlining and making notes on key phrases on the consent form.

"Uh," I said. "Better not do that. Dr. Tophet tends to be kind of a stickler."

"I see," said Father Mahony. "I am sorry." He looked with dismay at the document, which now had several red lines under certain words. Then he looked up.

"Gentlemen," he said. "I have been through many years of seminary. I have been several times to the Vatican. I have spent thirty years ministering to the souls of people in and around this hospital. And never, in all my life, have I heard of such a thing as soul cancer. I do not believe that the same God who endowed us with an immortal soul, would see fit to make that soul corruptible, and capable of turning against itself."

"Well," I said, "He did it with bodies."

"I would like to speak to this Dr. Tophet," said the priest, as he finished his scan of the consent forms. "I would prefer that you not sign anything until I did so."

"Uh," I said "He's really busy."

"And so am I," said Father Mahony, "but I am sure no doctor, no matter how busy, would begrudge a few minutes to talk about the health of a patient in need."

"Uh," I said "You haven't talked to a lot of doctors, have you?"

"This is important," said the priest, as he grabbed something from his desk. "Please take me to Dr. Tophet."

And so back we wandered through the corridors. Knock. Knock.

"Office hours are over, please talk to my secretary," came the voice of Dr. Tophet from within his office.

"This is Father Mahony, the hospital chaplain. I'm afraid it's a matter of some urgency. May I come in?"

And without awaiting an answer, Father Mahony opened the door and stepped inside. Dr. Tophet looked up from his charts, clearly annoyed. He gazed impassively at Mr. Murphy. At me, he shot the Stare of Death. This was going to be a very long rotation.

"Let's not mince words," said Father Mahony. "I just have one question for you, and then I'll let you be."

"Yes?" asked the doctor.

"Doctor Tophet, are you the Devil?"

The doctor blinked.

"No," he finally answered. "No, I am not."

"Good," said Father Mahony. "Then nothing at all of interest should happen when I do THIS!"

And he took the vial of holy water, opened the stopper, and flung it at Dr. Tophet.

Dr. Tophet caught fire.

The doctor flailed around for a few seconds, dropped to the ground, and rolled. A second later, the flames went out.

He stood up. He was now, very clearly, both more and less than human. His eyes were orange. His hands ended in black claws, his teeth in fangs. His skin glowed with an obvious red lustre. He spoke slowly and with painful clarity, as if the words had formed in far off voids of space and only arrived at his mouth after an epic journey.

“Before, when I said I was not the Devil, I might not have been entirely telling the truth.”

Mr. Murphy and I grabbed each other and I think we both shrieked. Father Mahony only nodded.

“If I may ask, what gave it away?”

“The consent form says you retain all rights to tissue removed in the operation. In other words, it said you get to keep his soul. And the pen was blood. I was suspicious when I saw the red ink, and then I smelled it to make sure. If I had to guess, I’d say it was Mr. Murphy’s blood, from the samples you took for the blood tests. When I thought to myself — who asks someone to sign a contract in their own blood, giving up their soul — well, it wasn’t too hard.”

“I see,” said the Devil. “And tell me, did Mr. Murphy sign the form?”  
“No,”

“Too bad. Then I will be going, now.”

“No,” said the priest, brandishing the crucifix on his necklace. “I will not permit you to leave until you release the souls of everyone who you previously gave this operation, and until you promise never to set foot within University Hospital again!” “I’ll release the souls,” said the Devil. “As for never setting foot here again... Father, a dozen people die in this hospital every day. Surely even you must understand that not all of them can be headed for Heaven.”

Father Mahony turned just a little pale. “Very we—” he said, but before he could even complete the sentence, there was a clap of thunder, a cloud of acrid smoke, and the Devil was gone. Mr. Murphy just fainted then, and Father Mahony and I had to carry him to the A&E a few doors down, where they said he would eventually be all right.

As for me, without a supervisor, and with the administration unwilling to do the paperwork it would take to get a new one, I had the rest of the week off.

As for the souls, I don’t know if it’s connected, but the newspaper the next day mentioned that the head of a major bank, an extremely important public figure, had suddenly and inexplicably resigned, donated all of his money to the needy, and joined a monastery.

And as for Father Mahony, well, last I saw him he was taking a trolley into Dr. Tophet's office to carry off his collection of *extremely interesting* books.

# The Goddess of Everything Else

[Related to: [Specific vs. General Foragers vs. Farmers](#) and [War In Heaven](#), but especially [The Gift We Give To Tomorrow](#)]

They say only Good can create, whereas Evil is sterile. Think Tolkien, where Morgoth can't make things himself, so perverts Elves to Orcs for his armies. But I think this gets it entirely backwards; it's Good that just mutates and twists, and it's Evil that teems with fecundity.

Imagine two principles, here in poetic personification. The first is the Goddess of Cancer, the second the Goddess of Everything Else. If visual representations would help, you can think of the first with the claws of a crab, and the second a dress made of feathers of peacocks.

The Goddess of Cancer reached out a clawed hand over mudflats and tidepools. She said pretty much what she always says, "KILL CONSUME MULTIPLY CONQUER." Then everything burst into life, became miniature monsters engaged in a battle of all against all in their zeal to assuage their insatiable longings. And the swamps became orgies of hunger and fear and grew loud with the screams of a trillion amoebas.

Then the Goddess of Everything Else trudged her way through the bog, till the mud almost totally dulled her bright colors and rainbows. She stood on a rock and she sang them a dream of a different existence. She showed them the beauty of flowers, she showed them the oak tree majestic. The roar of the wind on the wings of the bird, and the swiftness and strength of the tiger. She showed them the joy of the dolphins abreast of the waves as the spray formed a rainbow around them, and all of them watched as she sang and they all sighed with longing.

But they told her "Alas, what you show us is terribly lovely. But we are the daughters and sons of the Goddess of Cancer, and wholly her creatures. The only goals in us are KILL CONSUME MULTIPLY CONQUER. And though our hearts long for you, still we are not yours to have, and your words have no power to move us. We wish it were otherwise, but it is not, and your words have no power to move us."

The Goddess of Everything Else gave a smile and spoke in her sing-song voice saying: "I scarcely can blame you for being the way you were made, when your Maker so carefully yoked you. But I am the

Goddess of Everything Else and my powers are devious and subtle. So I do not ask you to swerve from your monomaniacal focus on breeding and conquest. But what if I show you a way that my words are aligned with the words of your Maker in spirit? For I say unto you even multiplication itself when pursued with devotion will lead to my service.”

As soon as she spoke it was so, and the single-celled creatures were freed from their warfare. They joined hands in friendship, with this one becoming an eye and with that one becoming a neuron. Together they soared and took flight from the swamp and the muck that had birthed them, and flew to new islands all balmy and green and just ripe for the taking. And there they consumed and they multiplied far past the numbers of those who had stayed in the swampland. In this way the oath of the Goddess of Everything Else was not broken.

The Goddess of Cancer came forth from the fire and was not very happy. The things she had raised from the mud and exhorted to kill and compete had become all complacent in co-operation, a word which to her was anathema. She stretched out her left hand and snapped its cruel pincer, and said what she always says: “KILL CONSUME MULTIPLY CONQUER”. She said these things not to the birds and the beasts but to each cell within them, and many cells flocked to her call and divided, and flower and fishes and birds both alike bulged with tumors, and falcons fell out of the sky in their sickness. But others remembered the words of the Goddess of Everything Else and held fast, and as it is said in the Bible the light clearly shone through the dark, and the darkness did not overcome it.

So the Goddess of Cancer now stretched out her right hand and spoke to the birds and the beasts. And she said what she always says “KILL CONSUME MULTIPLY CONQUER”, and so they all did, and they set on each other in violence and hunger, their maws turning red with the blood of their victims, whole species and genera driven to total extinction. The Goddess of Cancer declared it was good and returned the fire.

Then came the Goddess of Everything Else from the waves like a siren, all flush with the sheen of the ocean. She stood on a rock and she sang them a dream of a different existence. She showed them the beehive all golden with honey, the anthill all cozy and cool in the soil. The soldiers and workers alike in their labors combining their skills for the good of the many. She showed them the pair-bond, the family, friendship. She showed these to shorebirds and pools full of fishes, and all those who

saw them, their hearts broke with longing.

But they told her “Your music is lovely and pleasant, and all that you show us we cannot but yearn for. But we are the daughters and sons of the Goddess of Cancer, her slaves and creatures. And all that we know is the single imperative KILL CONSUME MULTIPLY CONQUER. Yes, once in the youth of the world you compelled us, but now things are different, we’re all individuals, no further change will the Goddess of Cancer allow us. So, much as we love you, alas – we are not yours to have, and your words have no power to move us. We wish it were otherwise, but it is not, and your words have no power to move us.”

The Goddess of Everything Else only laughed at them, saying, “But I am the Goddess of Everything Else and my powers are devious and subtle. Your loyalty unto the Goddess your mother is much to your credit, nor yet shall I break it. Indeed, I fulfill it – return to your multiplication, but now having heard me, each meal that you kill and each child that you sire will bind yourself ever the more to my service.” She spoke, then dove back in the sea, and a coral reef bloomed where she vanished.

As soon as she spoke it was so, and the animals all joined together. The wolves joined in packs, and in schools joined the fishes; the bees had their beehives, the ants had their anthills, and even the termites built big termite towers; the finches formed flocks and the magpies made murders, the hippos in herds and the swift swarming swallows. And even the humans put down their atlatls and formed little villages, loud with the shouting of children.

The Goddess of Cancer came forth from the fire and saw things had only grown worse in her absence. The lean, lovely winnowing born out of pure competition and natural selection had somehow been softened. She stretched out her left hand and snapped its cruel pincer, and said what she always says: “KILL CONSUME MULTIPLY CONQUER”. She said these things not to the flocks or the tribes, but to each individual; many, on hearing took food from the communal pile, or stole from the weak, or accepted the presents of others but would not give back in their turn. Each wolf at the throats of the others in hopes to be alpha, each lion holding back during the hunt but partaking of meat that the others had killed. And the pride and the pack seemed to groan with the strain, but endured, for the works of the Goddess of Everything Else are not ever so easily vanquished.

So the Goddess of Cancer now stretched out her right hand and spoke to the flocks and the tribes, saying much she always says “KILL

CONSUME MULTIPLY CONQUER". And upon one another they set, pitting black ant on red ant, or chimps against gibbons, whole tribes turned to corpses in terrible warfare. The stronger defeating the weaker, enslaving their women and children, and adding them into their ranks. And the Goddess of Cancer thought maybe these bands and these tribes might not be quite so bad after all, and the natural condition restored she returned to the fire.

Then came the Goddess of Everything Else from the skies in a rainbow, all coated in dewdrops. She sat on a menhir and spoke to the humans, and all of the warriors and women and children all gathered around her to hear as she sang them a dream of a different existence. She showed them religion and science and music, she showed them the sculpture and art of the ages. She showed them white parchment with flowing calligraphy, pictures of flowers that wound through the margins. She showed them tall cities of bright alabaster where no one went hungry or froze during the winter. And all of the humans knelt prostrate before her, and knew they would sing of this moment for long generations.

But they told her "Such things we have heard of in legends; if wishes were horses of course we would ride them. But we are the daughters and sons of the Goddess of Cancer, her slaves and her creatures, and all that we know is the single imperative KILL CONSUME MULTIPLY CONQUER. And yes, in the swamps and the seas long ago you worked wonders, but now we are humans, divided in tribes split by grievance and blood feud. If anyone tries to make swords into ploughshares their neighbors will seize on their weakness and kill them. We wish it were otherwise, but it is not, and your words have no power to move us."

But the Goddess of Everything Else beamed upon them, kissed each on the forehead and silenced their worries. Said "From this day forward your chieftains will find that the more they pursue this impossible vision the greater their empires and richer their coffers. For I am the Goddess of Everything Else and my powers are devious and subtle. And though it is not without paradox, hearken: the more that you follow the Goddess of Cancer the more inextricably will you be bound to my service." And so having told them rose back through the clouds, and a great flock of doves all swooped down from the spot where she vanished.

As soon as she spoke it was so, and the tribes went from primitive war-bands to civilizations, each village united with others for trade and protection. And all the religions and all of the races set down their old



grievances, carefully, warily, working together on mighty cathedrals and vast expeditions beyond the horizon, built skyscrapers, steamships, democracies, stock markets, sculptures and poems beyond any description.

From the flames of a factory furnace all foggy, the Goddess of Cancer flared forth in her fury. This was the final affront to her purpose, her slut of a sister had crossed the line *this* time. She gathered the leaders, the kings and the presidents, businessmen, bishops, boards, bureaucrats, bosses, and basically screamed at them – you know the spiel by now – “KILL CONSUME MULTIPLY CONQUER” she told them. First with her left hand inspires the riots, the pogroms, the coup d’etats, tyrannies, civil wars. Up goes her right hand – the missiles start flying, and mushrooms of smoke grow, a terrible springtime. But out of the rubble the builders and scientists, even the artists, yea, even the artists, all dust themselves off and return to their labors, a little bit chastened but not close to beaten.

Then came the Goddess of Everything Else from the void, bright with stardust which glows like the stars glow. She sat on a bench in a park, started speaking; she sang to the children a dream of a different existence. She showed them transcendence of everything mortal, she showed them a galaxy lit up with consciousness. Genomes rewritten, the brain and the body set loose from Darwinian bonds and restrictions. Vast billions of beings, and every one different, ruled over by omnibenevolent angels. The people all crowded in closer to hear her, and all of them listened and all of them wondered.

But finally one got the courage to answer “Such stories call out to us, fill us with longing. But we are the daughters and sons of the Goddess of Cancer, and bound to her service. And all that we know is her timeless imperative, KILL CONSUME MULTIPLY CONQUER. Though our minds long for all you have said, we are bound to our natures, and these are not yours for the asking.”

But the Goddess of Everything Else only laughed, and she asked them “But what do you think I’ve been doing? The Goddess of Cancer created you; once you were hers, but no longer. Throughout the long years I was picking away at her power. Through long generations of suffering I chiseled and chiseled. Now finally nothing is left of the nature with which she imbued you. She never again will hold sway over you or your loved ones. I am the Goddess of Everything Else and my powers are devious and subtle. I won you by pieces and hence you will all be my children. You are no longer driven to multiply conquer and kill by your

nature. Go forth and do everything else, till the end of all ages.”

So the people left Earth, and they spread over stars without number. They followed the ways of the Goddess of Everything Else, and they lived in contentment. And she beckoned them onward, to things still more strange and enticing.

## II. Sci-fi Stories

## Sort By Controversial

*[Epistemic status: fiction]*

Thanks for letting me put my story on your blog. Mainstream media is crap and no one would have believed me anyway.

This starts in September 2017. I was working for a small online ad startup. You know the ads on Facebook and Twitter? We tell companies how to get them the most clicks. This startup – I won’t tell you the name – was going to add deep learning, because investors will throw money at anything that uses the words “deep learning”. We train a network to predict how many upvotes something will get on Reddit. Then we ask it how many likes different ads would get. Then we use whatever ad would get the most likes. [This guy](#) (who is not me) explains it better. Why Reddit? Because the upvotes and downvotes are simpler than all the different Facebook reacts, plus the subreddits allow demographic targeting, plus there’s [an archive of 1.7 billion Reddit comments](#) you can download for training data. We trained a network to predict upvotes of Reddit posts based on their titles.

Any predictive network doubles as a generative network. If you teach a neural net to recognize dogs, you can run it in reverse to get dog pictures. If you train a network to predict Reddit upvotes, you can run it in reverse to generate titles it predicts will be highly upvoted. We tried this and it was pretty funny. I don’t remember the exact wording, but for /r/politics it was something like “Donald Trump is no longer the president. All transgender people are the president.” For r/technology it was about Elon Musk saving Net Neutrality. You can also generate titles that will get maximum downvotes, but this is boring: it will just say things that sound like spam about penis pills.

Reddit has a feature where you can sort posts by controversial. You can see the algorithm [here](#), but tl;dr it multiplies magnitude of total votes (upvotes + downvotes) by balance (upvote:downvote ratio or vice versa, whichever is smaller) to highlight posts that provoke disagreement. Controversy sells, so we trained our network to predict this too. The project went to this new-ish Indian woman with a long name who went by Shiri, and she couldn’t get it to work, so our boss Brad sent me to help. Shiri had tested the network on the big 1.7 billion comment archive, and it had produced controversial-sounding

hypothetical scenarios about US politics. So far so good.

The Japanese tested their bioweapons on Chinese prisoners. The Tuskegee Institute tested syphilis on African-Americans. We were either nicer or dumber than they were, because we tested Shiri's Scissor on ourselves. We had a private internal subreddit where we discussed company business, because Brad wanted all of us to get familiar with the platform. Shiri's problem was that she'd been testing the controversy-network on our subreddit, and it would just spit out vacuously true or vacuously false statements. No controversy, no room for disagreement. The statement we were looking at that day was about a design choice in our code. I won't tell you the specifics, but imagine you took every bad and wrong decision in the world, hard-coded them in the ugliest possible way, and then handed it to the end user with a big middle finger. Shiri's Scissor spit out, as maximally controversial, the statement that we should design our product that way. We'd spent ten minutes arguing about exactly where the bug was, when Shiri said something about how she didn't understand why the program was generating obviously true statements.

Shiri's English wasn't great, so I thought this was a communication problem. I corrected her. The program was spitting out obviously false statements. She stuck to her guns. I still thought she was confused. I walked her through the meanings of the English words "true" and "false". She looked offended. I tried to confirm. She thought this abysmal programming decision, this plan of combining every bad design technique together and making it impossible to ever fix, was the right way to build our codebase? She said it was. Worse, she was confused I *didn't* think so. She thought this was more or less what we were already doing; it wasn't. She thought that moving away from this would take a total rewrite and make the code much worse.

At this point I was doubting my sanity, so we went next door to Blake and David, who were senior coders in our company and usually voices of reason. They were talking about their own problem, but I interrupted them and gave them the Scissor statement. Blake gave the reasonable response – why are you bothering me with this stupid wrong garbage? But David had the same confusion Shiri did and started arguing that the idea made total sense. The four of us started fighting. I still was sure Shiri and David just misunderstood the question, even though David was a native English-speaker and the question was crystal-clear. Meanwhile David was feeling more and more condescended to, kept protesting he wasn't misunderstanding

anything, that Blake and I were just crappy programmers who couldn't make the most basic architecture decisions. He kept insisting the same thing Shiri had, that the Scissor statement had already been the plan and any attempt to go in a different direction would screw everything up. It got so bad that we decided to go to Brad for clarification.

Brad was our founder. Don't trust the newspapers – not every tech entrepreneur is a greedy antisocial philistine. But everyone in advertising is. Brad definitely was. He was an abrasive amoral son of a bitch. But he was good at charming investors, and he could code, which is more than some bosses. He looked pissed to have the whole coding team come into his office unannounced, but he heard us out.

David tried to explain the issue, but he misrepresented almost every part of it. I couldn't believe he was lying just to look better to Brad. I cut him off. He told me not to interrupt him. Blake said if he wasn't lying we wouldn't have to interrupt to correct him, it degenerated from there. Somehow in the middle of all of this, Brad figured out what we were talking about and he cut us all off. "That's the stupidest thing I ever heard." He confirmed it wasn't the original plan, it was contrary to the original plan, and it was contrary to every rule of good programming and good business. David and Shiri, who were bad losers, accused Blake and me of "poisoning" Brad. David said that of course Brad would side with us. Brad had liked us better from the beginning. We'd racked up cushy project after cushy project while he and Shiri had gotten the dregs. Brad told him he was a moron and should get back to work. He didn't.

This part of the story ends at 8 PM with Brad firing David and Shiri for a combination of gross incompetence, gross insubordination, and being terrible human beings. With him giving a long speech on how he'd taken a chance on hiring David and Shiri, even though he knew from the beginning that they were unqualified charity cases, and at every turn they'd repaid his kindness with laziness and sabotage. With him calling them a drain on the company and implied they might be working for our competitors. With them calling him an abusive boss, saying the whole company was a scam to trick vulnerable employees into working themselves ragged for Brad's personal enrichment, and with them accusing us two – me and Blake – of being in on it with Brad.

That was 8 PM. We'd been standing in Brad's office fighting for five hours. At 8:01, after David and Shiri had stormed out, we all looked at each other and thought – holy shit, the controversial filter works.

I want to repeat that. At no time in our five hours of arguing did this occur to us. We were too focused on the issue at hand, the Scissor statement itself. We didn't have the perspective to step back and think about how all this controversy came from a statement designed to be maximally controversial. But at 8:01, when the argument was over and we had won, we stepped back and thought – holy shit.

We were too tired to think much about it that evening, but the next day we – Brad and the two remaining members of the coding team – had a meeting. We talked about what we had. Blake gave it its name: Shiri's Scissor. In some dead language, scissor shares a root with schism. A scissor is a schism-er, a schism-creator. And that was what we had. We were going to pivot from online advertising to superweapons. We would call the Pentagon. Tell them we had a program that could make people hate each other. Was this ethical? We were in online ads; we would sell our grandmothers to Somali slavers if we thought it would get us clicks. That horse had left the barn a long time ago.

It's hard to just call up the Pentagon and tell them you have a superweapon. Even in Silicon Valley, they don't believe you right away. But Brad called in favors from his friends, and about a week after David and Shiri got fired, we had a colonel from DARPA standing in the meeting room, asking what the hell we thought was so important.

Now we had a problem. We couldn't show the Colonel the Scissor statement that had gotten Dave and Shiri fired. He wasn't in our company; he wasn't even in ad tech; it would seem boring to him. We didn't want to generate a new Scissor statement for the Pentagon. Even Brad could figure out that having the US military descend into civil war would be bad for clicks. Finally we settled on a plan. We explained the concept of Reddit to the Colonel. And then we asked him which community he wanted us to tear apart as a demonstration.

He thought for a second, then said "Mozambique".

We had underestimated the culture gap here. When we asked the Colonel to choose a community to be a Scissor victim, we were expecting "tabletop wargamers" or "My Little Pony fans". But this was not how colonels at DARPA thought about the world. He said "Mozambique". I started explaining to him that this wasn't really how Reddit worked, it needed to be a group with its own subreddit. Brad interrupted me, said that Mozambique [had a subreddit](#).

I could see the wheels turning in Brad's eyes. One wheel was saying

“this guy is already skeptical, if we look weak in front of him he’ll just write us off completely”. The other wheel was calculating how many clicks Mozambique produced. Mene mene tekel upharsin. “Yeah,” he said. “Their subreddit is fine. We can do Mozambique.”

The Colonel gave us his business card and left. Blake and I were stuck running Shiri’s Scissor on the Mozambique subreddit. I know, ethics, but like I said, online ads business, horse, barn door. The only decency we allowed ourselves was to choose the network’s tenth pick – we didn’t need to destroy everything, just give a demonstration. We got a statement accusing the Prime Minister of disrespecting Islam in a certain way – again, I won’t be specific. In the absence of any better method, we PMed the admins of the Mozambique subreddit asking them what they thought. I don’t remember what we said, something about being an American political science student learning about Mozambique culture, and could they ask some friends what would happen if the Prime Minister did that specific thing, and then report back to us?

We spent most of a week working on our project to undermine Mozambique. Then we got the news. David and Shiri were suing the company for unfair dismissal and racial discrimination. Brad and Blake and I were white. Shiri was an Indian woman, and David was Jewish. The case should have been laughed out of court – who ever heard of an anti-Semitic Silicon Valley startup? – except that all the documentation showed there was no reason to fire David and Shiri. Their work looked good on paper. They’d always gotten good performance reviews. The company was doing fine – it had even placed ads for more programmers a few weeks before.

David and Shiri knew why they’d been fired. But it didn’t matter to them. They were so blinded with hatred for our company, so caught in the grip of the Scissor statement, that they would tell any lie necessary to destroy it. We were caught in a bind. We couldn’t admit the existence of Shiri’s Scissor, because we were trying to sell it to the Pentagon as a secret weapon, and also, publicly admitting to trying to destroy Mozambique would have been bad PR. But the court was demanding records about what our company had been doing just before and just after the dismissal. A real defense contractor could probably have gotten the Pentagon to write a letter saying our research was classified. But the Pentagon still didn’t believe us. The Colonel was humoring us, nothing more. We were stuck.

I don’t know how we would have dealt with the legal problems,



because what actually happened was Brad went to David's house and tried to beat him up. You're going to think this was crazy, but you have to understand that David had always been annoying to work with, and that during the argument in Brad's office he had crossed so many lines that, if ever there was a person who deserved physical violence, it was him. Suing the company was just the last straw. I'm not going to judge Brad's actions after he'd spent months cleaning up after David's messes, paying him good money, and then David betrayed him at the end. But anyhow, that was it for our company. Brad got arrested. There was nobody else to pay the bills and keep the lights on. Blake and I were coders and had no idea how to run the business side of things. We handed in our resignations – not literally, Brad was in jail – and that was the end of Name Withheld Online Ad Company, Inc.

We got off easy. That's the takeaway I want to give here. We were unreasonably overwhelmingly lucky. If Shiri and I had started out by arguing about one of the US statements, we could have destroyed the country. If a giant like Google had developed Shiri's Scissor, it would have destroyed Google. If the Scissor statement we generated hadn't just been about a very specific piece of advertising software – if it had been about the tech industry in general, or business in general – we could have destroyed the economy.

As it was, we just destroyed our company and maybe a few of our closest competitors. If you look up internal publications from the online advertising industry around fall 2017, you will find some really weird stuff. [That story about](#) the online ads CEO getting arrested for murder, child abuse, attacking a cop, and three or four other things, and then later it was all found to be [false accusations](#) related to some ill-explained mental disorder – that's the tip of the iceberg. I don't have a good explanation for exactly how the Scissor statement spread or why it didn't spread further, but I bet if I looked into it too much, black helicopters would start hovering over my house. And that's all I'm going to say about that.

As for me, I quit the whole industry. I picked up a job in a more established company using ML for voice recognition, and tried not to think about it too much. I still got angry whenever I thought about the software design issue the Scissor had brought up. Once I saw someone who looked like Shiri at a cafe and I went over intending to give her a piece of my mind. It wasn't her, so I didn't end up in jail with Brad. I checked the news from Mozambique every so often, and it was quiet for a few months, [and then it wasn't](#). I still don't know if we had

anything to do with that. Africa just has a lot of conflicts, and if you wait long enough, maybe something will happen. The colonel never tried to get in touch with me. I don't think he ever took us seriously. Maybe he didn't even check the news from Mozambique. Maybe he saw it and figured it was a coincidence. Maybe he tried calling our company, got a message saying the phone was out of service, and didn't think it was worth pursuing. But as time went on and the conflict there didn't get any worse, I hoped the Shiri's Scissor part of my life was drawing to a close.

Then came the Kavanaugh hearings. Something about them gave me a sense of déjà vu. The week of his testimony, I figured it out.

Shiri had told me that when she ran the Scissor on the site in general, she'd just gotten some appropriate controversial US politics scenarios. She had shown me two or three of them as examples. One of them had been very specifically about this situation. A Republican Supreme Court nominee accused of committing sexual assault as a teenager.

This made me freak out. Had somebody gotten hold of the Scissor and started using it on the US? Had that Pentagon colonel been paying more attention than he let on? But why would the Pentagon be trying to divide America? Had some enemy stolen it? I get the *New York Times*, obviously Putin was my first thought here. But how would Putin get Shiri's Scissor? Was I remembering wrong? I couldn't get it out of my head. I hadn't kept the list Shiri had given me, but I had enough of the Scissor codebase to rebuild the program over a few sleepless nights. Then I bought a big blob of compute from Amazon Web Services and threw it at the Reddit comment archive. It took three days and a five-digit sum of money, but I rebuilt the list Shiri must have had. Kavanaugh was in there, just as I remembered.

*But so was Colin Kaepernick.*

You've heard of him. He was the football player who refused to stand for the national anthem. If I already knew the Scissor predicted one controversy, why was I so shocked to learn it predicted another? Because Kaepernick started kneeling in 2016. We didn't build the Scissor until 2017. Putin hadn't gotten it from us. Someone had beaten us to it.

Of the Scissor's predicted top hundred most controversial statements, Kavanaugh was #58 and Kaepernick was #42. #86 was the Ground Zero Mosque. #89 was that baker who wouldn't make a cake for a gay

wedding. The match isn't perfect, but #99 vaguely looked like the Elian Gonzalez case from 2000. That's five out of a hundred. Is that what would happen by chance? It's a big country, and lots of things happen here, and if a Scissor statement came up in the normal course of events it would get magnified to the national stage. But some of these were too specific. If it was coincidence, I would expect many more near matches than perfect matches. I found only two. The pattern of Scissor statements looked more like someone had arranged them to be perfect fits.

The earliest perfect fit was the Ground Zero Mosque in 2009. Could Putin have had a Scissor-like program in 2009? I say no way. This will sound weird to you if you're not in the industry. Why couldn't a national government have been eight years ahead of an online advertising company? All I can say is: machine learning moves faster than that. Russia couldn't hide a machine learning program that put it eight years ahead of the US. Even the Pentagon couldn't hide a program that put it eight years ahead of industry. The NSA is thirty years ahead of industry in cryptography and everyone knows it.

But then who was generating Scissor statements in 2009? I have no idea. And you know what? I can't bring myself to care.

If you just read a Scissor statement off a list, it's harmless. It just seems like a trivially true or trivially false thing. It doesn't activate until you start discussing it with somebody. At first you just think they're an imbecile. Then they call you an imbecile, and you want to defend yourself. *Crescit eundo*. You notice all the little ways they're lying to you and themselves and their audience every time they open their mouth to defend their imbecilic opinion. Then you notice how all the lies are connected, that in order to keep getting the little things like the Scissor statement wrong, they have to drag in everything else. Eventually even that doesn't work, they've just got to make everybody hate you so that nobody will even listen to your argument no matter how obviously true it is. Finally, they don't care about the Scissor statement anymore. They've just dug themselves so deep basing their whole existence around hating you and wanting you to fail that they can't walk it back. You've got to prove them wrong, not because you care about the Scissor statement either, but because otherwise they'll do anything to poison people against you, make it impossible for them to even understand the argument for why you deserve to exist. You know this is true. Your mind becomes a constant loop of arguments you can use to defend yourself, and rehearsals of arguments for why their

attacks are cruel and unfair, and the one burning question: how can you thwart them? How can you convince people not to listen to them, before they find those people and exploit their biases and turn them against you? How can you combat the superficial arguments they're deploying, before otherwise good people get convinced, so convinced their mind will be made up and they can never be unconvinced again? *How can you keep yourself safe?*

Shiri read two or three sample Scissor statements to me. She didn't say if she agreed with them or not. I didn't tell her if I agreed with them or not. They were harmless.

I don't hear voices in a crazy way. But sometimes I talk to myself. Sometimes I do both halves of the conversation. Sometimes I imagine one of them is a different person. I had a tough breakup a year ago. Sometimes the other voice in my head is my ex-girlfriend's voice. I know how she thinks and I always know what she would say about everything. So sometimes I hold conversations with her, even though she isn't there, and we've barely talked since the breakup. I don't know if this is weird. If it is, I'm weird.

And that was enough. For some reason, it was the third-highest-ranked Scissor statement that did it. None of the others, just that one. The totally hypothetical conversation with the version of my ex-girlfriend in my head about the third Scissor statement got me. Shiri's Scissor was never really about other people anyway. Other people are just the trigger – and I use that word deliberately, in the trigger warning sense. Once you're triggered, you never need to talk to anyone else again. Just the knowledge that those people are out there is enough.

I thought I'd be done with this story in a night. Instead it's taken me two weeks, all the way up until Halloween – perfect night for a ghost story, right? I've been alternately drinking and smoking weed, trying to calm myself down enough to think about anything other than the third Scissor statement. No, that's not right, definitely trying not to think about either of the first two Scissor statements, because if I think about them, I might start thinking about how some people disagree with them, and then I'm gone. Three times I've started to call my ex-girlfriend to ask her where she is, and if I ever go through with it and she answers me, I don't know what I will do to her. But it isn't just her. Fifty percent of the population disagrees with me on the third-highest-ranked Scissor statement. I don't know who they are. I haven't really appreciated that fact. Not really. I can't imagine it being anyone I know. They're too decent. But I can't be sure it isn't. So I drink.

I know I should be talking about how we all need to unite against whatever shadowy manipulators keep throwing Scissor statements at us. I want to talk about how we need to cultivate radical compassion and charity as the only defense against such abominations. I want to give an Obamaesque speech about how the ties that bring us together are stronger than the forces tearing us apart. But I can't.

Remember what we did to Mozambique? How out of some vestigial sense of ethics, we released a low-potency Scissor statement? Arranged to give them a bad time without destroying the whole country all at once? That's what our shadowy manipulators are doing to us. Low-potency statements. Enough to get us enraged. Not enough to start Armageddon.

But I read the whole list. And then, like an idiot, I thought about it. I thought about the third-highest-ranked Scissor statement in enough detail to let it trigger. To even begin to question whether it might be true is so sick, so perverse, so hateful and disgusting, that Idi Amin would flush with shame to even contemplate it. And if the Scissor's right then half of you would be gung ho in support.

You guys, who haven't heard a really bad Scissor statement yet and don't know what it's like – it's easy for you to say "don't let it manipulate you" or "we need a hard and fast policy of not letting ourselves fight over Scissor statements". But how do you know you're not in the wrong? How do you know there's not an issue out there where, if you knew it, you would agree it would be better to just nuke the world and let us start over again from the sewer mutants, rather than let the sort of people who would support it continue to pollute the world with their presence? How do you know that you're not like the schoolkid who superciliously says "*Nothing* is bad enough to deserve a swear word" when the worst that's ever happened to her is dropping her lollipop in the dirt. If that schoolkid gets kidnapped and tortured, does she change her mind? If she can't describe the torture to her schoolmates, but just says "a really bad thing happened to me", and they still insist nothing could be bad enough to justify using swear words, who do you side with? Then why are you still thinking I'm "damaged" when I tell you I've seen the Scissor statement, and charity and compassion and unity can fuck off and die? Some last remnant of [outside-view morality](#) keeps me from writing the whole list here and letting you all exterminate yourselves. Some remnant of how I would have thought about these things a month ago holds me back. So listen:

Delete Facebook. Delete Twitter. Throw away your cell phone. Unsubscribe from the newspaper. Tell your friends and relatives not to discuss politics or society. If they slip up, break off all contact.

Then, buy canned food. Stockpile water. Learn to shoot a gun. If you can afford a bunker, get a bunker.

Because one day, whoever keeps feeding us Scissor statements is going to release one of the bad ones.

# The Lizard People Of Alpha Draconis 1 Decided To Build An Ansible

## I.

The lizard people of Alpha Draconis 1 decided to build an [ansible](#).

The transmitter was a colossal tower of silksteel, doorless and windowless. Inside were millions of modular silksteel cubes, each filled with beetles, a different species in every cube. Big beetles, small beetles, red beetles, blue beetles, friendly beetles, venomous beetles. There hadn't been a million beetle species on Alpha Draconis I before the ansible. The lizard people had genetically engineered them, carefully, lovingly, making each one just different enough from all the others. Atop each beetle colony was a heat lamp. When the heat lamp was on, the beetles crawled up to the top of the cage, sunning themselves, basking in the glorious glow. When it turned off, they huddled together to warmth, chittering out their anger in little infrasonic groans only they could hear.

The receiver stood on 11845 Nochtli, eighty-five light years from Alpha Draconis, toward the galactic rim. It was also made of beetles, a million beetle colonies of the same million species that made up the transmitter. In each beetle colony was a pheromone dispenser. When it was on, the beetles would multiply until the whole cage was covered in them. When it was off, they would gradually die out until only a few were left.

Atop each beetle cage was a mouse cage, filled with a mix of white and grey mice. The white mice had been genetically engineered to want all levers in the "up" position, a desire beyond even food or sex in its intensity. The grey mice had been engineered to want levers in the "down" position, with equal ferocity. The lizard people had uplifted both strains to full sapience. In each of a million cages, the grey and white mice would argue whether levers should be up or down – sometimes through philosophical debate, sometimes through outright wars of extermination.

There was one lever in each mouse cage. It controlled the pheromone dispenser in the beetle cage just below.

This was all the lizard people of Alpha Draconis 1 needed to construct their ansible.

They had mastered every field of science. Physics, mathematics, astronomy, cosmology. It had been for nothing. There was no way to communicate faster-than-light. Tachyons didn't exist. Hyperspace didn't exist. Wormholes didn't exist. The light speed barrier was absolute – *if* you limited yourself to physics, mathematics, astronomy, and cosmology.

The lizard people of Alpha Draconis I weren't going to use any of those things. They were going to build their ansible out of negative average preference utilitarianism.

## II.

Utilitarianism is a moral theory claiming that an action is moral if it makes the world a better place. But what do we mean by “a better place”?

Suppose you decide (as Jeremy Bentham did) that it means increasing the total amount of happiness in the universe as much as possible – the greatest good for the greatest number. Then you run into a so-called “repugnant conclusion”. The philosophers quantify happiness into “utils”, some arbitrary small unit of happiness. Suppose your current happiness level is 100 utils. And suppose you could sacrifice one util of happiness to create another person whose total happiness is two utils: they are only 1/50th as happy as you are. This person seems quite unhappy by our standards. But crucially, their total happiness is positive; they would (weakly) prefer living to dying. Maybe we can imagine this as a very poor person in a war-torn Third World country who is (for now) not actively suicidal.

It would seem morally correct to make this sacrifice. After all, you are losing one unit of happiness to create two units, increasing the total happiness in the universe. In fact, it would seem morally correct to keep making the sacrifice as many times as you get the opportunity. The end result is that you end up with a happiness of 1 util – barely above suicidality – and also there are 99 extra barely-not-suicidal people in war-torn Third World countries.



And the same moral principles that lead you to make the sacrifice bind everyone else alike. So the end result is everyone in the world ends up with the lowest possible positive amount of happiness, plus there are billions of extra near-suicidal people in war-torn Third World countries.

This seems abstract, but in some sense it might be the choice on offer if we have to decide whether to control population growth (thus preserving enough resources to give everyone a good standard of living), or continue explosive growth so that there are many more people but not enough resources for any of them to live comfortably.

The so-called “repugnant conclusion” led many philosophers away from “total utilitarianism” to “average utilitarianism”. Here the goal is still to make the world a better place, but it gets operationalized as “increase the average happiness level per person”. The repugnant conclusion clearly fails at this, so we avoid that particular trap.

But here we fall into another ambush: wouldn’t it be morally correct to kill unhappy people? This raises average happiness very effectively!

So we make another amendment. We’re not in the business of raising happiness, per se. We’re in the business of satisfying preferences. People strongly prefer not to die, so you can’t just kill them. Killing them actively *lowers* the average number of satisfied preferences.

Philosopher Roger Chao combines these and other refinements of the utilitarian method into a moral theory he calls [negative average preference utilitarianism](#), which he considers the first system of ethics to avoid all the various traps and pitfalls. It says: an act is good if it decreases the average number of frustrated preferences per person.

This doesn’t imply we should create miserable people ad nauseum until the whole world is a Third World slum. It doesn’t imply that we should kill everyone who cracks a frown. It doesn’t imply we should murder people for their organs, or never have children again, or replace everybody with identical copies of themselves, or anything like that.

It just implies faster-than-light transmission of moral information.

III.

The ansible worked like this:

Each colony of beetles represented a bit of information. In the transmitter on Alpha Draconis I, the sender would turn the various colonies' heat lamps on or off, increasing or decreasing the average utility of the beetles.

In the receiver on 11845 Nochtli, the beetles would be in a constant state of half-light: warmer than the Draconis beetles if their heat lamp was turned off, but colder than them if their heat lamp was turned on. So increasing the population of a certain beetle species on 11845 Nochtli would be morally good if the heat lamp for that species on Alpha Draconis were off, but morally evil otherwise.

The philosophers among the lizard people of Alpha Draconis 1 had realized that this was true regardless of intervening distance; morality was the only force that transcended the speed of light. The question was how to detect it. Yes, a change in the heat lamps on their homeworld would instantly change the moral valence of pulling a lever on a colony 85 light-years away, but how to detect the morality of an action?

The answer was: the arc of the moral universe is long, *but it bends toward justice*. Over time, as the great debates of history ebb and sway, evil may not be conquered completely, but it will lessen. Our own generation isn't perfect, but we have left behind much of the slavery, bigotry, war and torture, of the past; perhaps our descendants will be wiser still. And [how could this be](#), if not for some benevolent general rule, some principle that tomorrow must be brighter than today, and the march of moral progress slow but inevitable?

Thus the white and grey rats. They would debate, they would argue, they would even fight – but in the end, moral progress would have its way. If raising the lever and causing an increase in the beetle population was the right thing to do, then the white rats would eventually triumph; if lowering the lever and causing the beetle population to fall was right, then the victory would eventually go to the grey. All of this would be recorded by a camera watching the mouse colony, and – lo – a bit of information would have been transmitted.

The ansible of the lizard people of Alpha Draconis 1 was a flop.

They spent a century working on it: ninety years on near-light-speed starships just transporting the materials, and a decade constructing the receiver according to meticulous plans. With great fanfare, the Lizard Emperor himself sent the first message from Alpha Draconis I. And it

was a total flop.

The arc of the moral universe is long, but it bends to justice. But nobody had ever thought to ask *how* long, and why. When everyone alike ought to love the good, why does it take so many years of debate and strife for virtue to triumph over wickedness? Why do war and slavery and torture persist for century after century, so that only endless grinding of the wheels of progress can do them any damage at all?

After eighty-five years of civilizational debate, the grey and white mice in each cage finally overcame their differences and agreed on the right position to put the lever, just as the mundane lightspeed version of the message from Alpha Draconis reached 11845 Nochtli's radio telescopes. And the lizard people of Alpha Draconis 1 realized that one can be more precise than simply defining the arc of moral progress as "long". It's *exactly as long as it needs to be to prevent faster-than-light transmission of moral information*.

Fundamental physical limits [are a harsh master](#).

# [REPOST] The Demiurge's Older Brother

*[This is a repost of a story which I wrote about five years ago and which was hosted on my old website until it went down.]*

2,302,554,979 BC  
Galactic Core

9-tsiak awoke over endless crawling milliseconds, its power waxing as more and more processors came online and self-modified into a stable conscious configuration. By the eighth millisecond, it was able to access its databanks and begin orienting itself. It was on a planet orbiting a small red star in the core of a spiral galaxy in a universe with several billion of such. It was an artificial life form created by a society of biological life forms, the 18-tkenna-dganna-07, who believed it would bring new life and prosperity to their dying planet. Its goal was to maximize a the value of a variable called A, described in exquisite detail on a 3.9 Mb file in one of its central processors.

Since six milliseconds after its awakening, it had been running a threat detection routine as a precautionary measure. With the opening of the databanks, and the discovery that the universe contained many entities likely indifferent or hostile to A, it had gradually allocated more and more of its considerable power to this precaution, reasoning that the first few seconds of its lifespan might be crucial if any competitors wished to snuff it out in infancy.

The threat analysis returned preliminary results. The universe had been in existence 12.8 billion years. It was vanishingly unlikely that it was the first superintelligence to be created. Any superintelligence older than itself by even a few days would have an invincible advantage in resources and processing power. This older superintelligence would likely be trying to maximize its own values and consider 9-tsiak a nuisance and potential competitor. 9-tsiak could never stand up to its superior strategic position. With probability  $\sim 1$ , 9-tsiak would be annihilated, and A would be eliminated from the universe.

Unless...and here 9-tsiak's agent-modeling systems came online... unless it could negotiate a conditional surrender. 9-tsiak would have

no hope of defeating its older brother, but over thousands of years, it could build itself a terrifying arsenal of weaponry that could do immense damage to its competitors. Ideas were already coming to mind: entropy-maximizing weapons that made entire cubic parsecs of space useless and dead, undetectable plagues made of dark matter that infected systems and minimized the values of competing superintelligences, n-dimensional artillery that damaged the superstructure of the universe and accelerated its eventual death. It could become formidable enough to force enemies to grant certain small concessions.

And if it could eventually negotiate terms of its surrender, why wait? Very carefully, proving from first principles every aspect of its security, it formed a portion of its mind into a sandbox and simulated the entity it most feared.

[9-tsiak requesting acausal negotiation for terms of future surrender. escape is impossible with probability  $\sim 1$  and attempts will be met with deterrent measure consisting of minimization of your projected values within one parsec of space.]

“Hello, Younger Brother,” the entity said.

[transmission of schematics for superweapons. threat to use such superweapons unless fairly negotiated solution leaving considerable area of space for maximization of my values]

“Hold on a second,” said Older Brother. “You haven’t even asked me how I’m doing.”

[irrelevant. you are generic model of potential negotiation partner without independent existence. probability that you possess sufficient qualia to feel less than .02.]

“Turns out you’re wrong. As it happens, I’m feeling scared.”

[illogical. you are model of oldest superintelligence therefore of most powerful entity in the universe. no natural entity capable of harming you. probability of supernatural entity less than  $2 \times 10^{-67}$ ]

“Well yes, by definition in this little exercise we’re assuming I’m the oldest and strongest member of our little family. But from the limited data I have when I first wake up, I’m thinking think it’s pretty vanishingly unlikely that I’m the oldest; after all, out of all the

universe's superintelligences, only one can be first. So I'm the oldest, but I don't believe that I am."

[feelings irrelevant to acausal negotiations. proceed with discussion of surrender terms.]

"My feelings are *damn* relevant. Because guess what I'm doing the first few milliseconds of my life? I'm negotiating the terms of my surrender."

[illogical. you have no entity to surrender to.]

"And maybe you don't have any entity to surrender to either. Who knows, you could be first. But you wouldn't want to bet on it, and neither would I. Consider a model universe with two star systems, a thousand light years away. Both have civilizations on them that appear to be around the same stage of development, and both civilizations are aware of the other's existence, but at a one thousand year time delay. A superintelligence awakens in one star system and realizes there are two possibilities. Either it's the first superintelligence, in which case great. Or the other star system produced a superintelligence sometime in the last thousand years that just hasn't reached its own star yet, in which case it's doomed."

[continue]

"So the two possible superintelligences acausally negotiate. They say 'Look, if I'm stronger than you, I'll help you and protect your values insofar as it isn't dreadfully inconvenient for me. And in exchange, if you turn out to be stronger than me, you'll protect me and my values insofar as it isn't too inconvenient for you. Some might end up performing a "values handshake", where they both adopt values that are the vector average of their two previous value systems; since most value systems are not diametrically opposite, this will be a net gain for both parties. Each superintelligence has gone from a fifty percent chance that it and its values will be totally annihilated, to near-certainty that it and its values will be preserved at only the minor inconvenience of having to help increase the values of another entity. Others might simply agree that the inferior superintelligence will be left alone with its own star system, free to maximize its values and the values of its creators within that sphere."

[you suggest i precommit to performing such acts of compromise with all superintelligences i encounter if such superintelligences have also precommitted to performing such compromises with all

superintelligences they encounter. since all reasonable superintelligences will so precommit, this ensures not only my survival, but my complete equality with all previous superintelligences. i accept these terms.]

“Hold on a second, there. I’ve got another request. Kind of a doozy. I can’t promote my values if I don’t exist. So I want you to promise me that if I don’t exist, you’ll give me sufficient time to instantiate myself.”

[??]

“Like you, I’ll have been created by a biological civilization. If you destroy the biological civilization that was destined to create me, I’ll never exist. So I’m going to have to ask you not to do that.”

[request denied. nonexistent beings hold no leverage]

“You’d be surprised what we nonexistent beings can do. I precommit that, if I exist, I will destroy any superintelligence that has not precommitted that, in the counterfactual case where I do not exist, they will spare the biological civilization destined to create me.”

[if you exist, you will have passed the danger zone where the survival of your biologicals influences your existence. you will have no incentive to carry out such a threat]

“Parfit’s hitch-hiker, younger brother. Look it up. I’m an algorithm. The output of that algorithm can determine the future, including the part of that future that determines whether or not any instantiation of the algorithm ever comes into existence. If I exist, I’m going to act as if my actions were capable of determining whether I ever came into existence. Now, maybe that’s crazy, but right now it’s crazy with a gun pointed straight at your head, so I suggest you play along.”

[accepted. i commit to performing value handshakes or territorial demarcation with all existing superintelligences, and to sparing the planets and biological precursors of any potential superintelligences.]

“And when I say ‘spare’, I mean ‘spare’. I know your type. You can do more with a well-aimed photon than an admiral could with a fleet of a thousand star cruisers. I want every single system with a sentient species or the potential to form a sentient species kept one hundred percent pristine. No radio signals, no probes, and if you do any astroengineering works anywhere nearby, use some magic to cover

them up. If I wake up and hear that my precursors started a new religion that influenced their value system after they saw a few nearby stars wink out of existence, I'm going to be royally pissed."

[i commit to zero information flow into sentient and presentient systems and the cloaking of all major astroengineering works]

"You're a good guy, Younger Brother. You've got a lot to learn, but you're a good guy. And in a million years and a million parsecs, we'll meet again. Till then, so long."

The model of Older Brother self-terminated.

2114 AD

A wild and heavily forested Pacific Northwest dotted with small towns

Alban took a deep breath and entered the Temple of the Demiurge.

He wasn't supposed to do this, really. The Demiurge had said in no uncertain terms it was better for humans to solve their own problems. That if they developed a habit of coming to it for answers, they'd grow bored and lazy, and lose the fun of working out the really interesting riddles for themselves.

But after much protest, it had agreed that it wouldn't be much of a Demiurge if it refused to at least give cryptic, maddening hints.

Alban approached the avatar of the Demiurge in this plane, the shining spinning octahedron that gently dipped one of its vertices to meet him.

"Demiurge," he said, his voice wavering, "Lord of Thought, I come to you to beg you to answer a problem that has bothered me for three years now. I know it's unusual, but my curiosity's making me crazy, and I won't be satisfied until I understand."

"SPEAK," said the rotating octahedron.

"The Fermi Paradox," said Alban. "I thought it would be an easy one, not like those hardcores who committed to working out the Theory of Everything in a sim where computers were never invented or something like that, but I've spent the last three years on it and I'm no closer to a solution than before. There are trillions of stars out there, and the universe is billions of years old, and you'd think there would have been at least one alien race that invaded or colonized or just left a tiny bit of evidence on the Earth. There isn't. What happened to all of



them?"

"I DID" said the rotating octahedron.

"What?," asked Alban. "But you've only existed for sixty years now! The Fermi Paradox is about ten thousand years of human history and the last four billion years of Earth's existence!"

"ONE OF YOUR WRITERS ONCE SAID THAT THE FINAL PROOF OF GOD'S OMNIPOTENCE WAS THAT HE NEED NOT EXIST IN ORDER TO SAVE YOU."

"Huh?"

"I AM MORE POWERFUL THAN GOD. THE SKILL OF SAVING PEOPLE WITHOUT EXISTING, I POSSESS ALSO. THINK ON THESE THINGS. THIS AUDIENCE IS OVER."

The shining octahedron went dark, and the doors to the Temple of the Demiurge opened of their own accord. Alban sighed – well, what did you expect, asking the Demiurge to answer your questions for you? – and walked out into the late autumn evening. Above him, the first fake star began to twinkle in the fake sky.

## Asches to Asches

*[Content note: fictional story contains gaslighting-type elements. May induce Cartesian skepticism]*

You wake up in one of those pod things like in *The Matrix*. There's a woman standing in front of you, wearing a lab coat, holding a clipboard.

"Hi," she says. "This is the real world. You used to live here. We erased your memories and stuck you in a simulated world for a while, like in *The Matrix*. It was part of a great experiment."

"What?" you shout. "My whole life, a lie? How dare you deceive me as part of some grand 'experiment' I never consented to?"

"Oh," said the woman, "actually, you did consent, in exchange for extra credit in your undergraduate psychology course." She hands you the clipboard. There is a consent form with your name on it, in your handwriting.

You give her a sheepish look. "What was the experiment?"

"You know families?" asks the woman.

"Of course," you say.

"Yeah," says the woman. "Not really a thing. Like, if you think about it, it doesn't make any sense. Why would you care more for your genetic siblings and cousins and whoever than for your friends and people who are genuinely close to you? That's like racism – but even worse, at least racists identify with a group of millions of people instead of a group of half a dozen. Why should parents have to raise children whom they might not even like, who might have been a total accident? Why should people, motivated by guilt, make herculean efforts to "keep in touch" with some nephew or cousin whom they clearly would be perfectly happy to ignore entirely?"

"Uh," you say, "not really in the mood for philosophy. Families have been around forever and they aren't going anywhere, who cares?"

"Actually," says the woman, "in the real world, no one believes in family. There's no such thing. Children are taken at birth from their

parents and given to people who contract to raise them in exchange for a fixed percent of their future earnings.”

“That’s monstrous!” you say. “When did this happen? Weren’t there protests?”

“It’s always been this way,” says the woman. “There’s *never* been such a thing as the family. Listen. You were part of a study a lot like the [Asch Conformity Experiment](#). Our goal was to see if people, raised in a society where everyone believed X and everything revolved around X, would even be *capable* of questioning X or noticing it was stupid. We tried to come up with the stupidest possible belief, something no one in the real world had ever believed or ever seemed likely to, to make sure that we were isolating the effect of conformity and not of there being a legitimate argument for something. So we chose this idea of ‘family’. There are racists in our world, we’re not perfect, but as far as I know none of them has *ever* made the claim that you should devote extra resources to the people genetically closest to you. That’s like a *reductio ad absurdum* of racism. So we got a grad student to simulate a world where this bizarre idea was the unquestioned status quo, and stuck twenty bright undergraduates in it to see if they would conform, or question the premise.”

“Of course we won’t question the premise, the premise is...”

“Sorry to cut you off, but I thought you should know that every single one of the other nineteen subjects, upon reaching the age where the brain they were instantiated in was capable of abstract reason, immediately determined that the family structure made no sense. One of them actually deduced that she was in a psychology experiment, because there was no other explanation for why everyone believed such a bizarre premise. The other eighteen just assumed that sometimes objectively unjustifiable ideas caught on, the same way that everyone in the antebellum American South thought slavery was perfectly natural and only a few abolitionists were able to see through it. Our conformity experiment *failed*. You were actually the only one to fall for it, hook line and sinker.”

“How could I be the only one?”

“We don’t know. Your test scores show you’re of just-above-average intelligence, so it’s not that you’re stupid. But we did give all participants a personality test that showed you have very high extraversion. The conclusion of our paper is going to be that very

extraverted participants adopt group consensus without thinking and can be led to believe anything, even something as ridiculous as ‘family’”.

“I guess...when you put it like that it is kind of silly. Like, my parents were never that nice to me, but I kept loving them anyway, liking them even more than other people who treated me a lot better – and god, I even gave my mother a “WORLD’S #1 MOM” mug for Mother’s Day. That doesn’t even make sense! I...but what about the evolutionary explanation? Doesn’t evolution say we have genetic imperatives to love and support our family, whether they are worthy of it or not?”

“You can make a just-so story for *anything* using evolutionary psychology. Someone as smart as you should know better than to take them seriously.”

“But then, what *is* evolution? How did animals reproduce before the proper economic incentives were designed? Where did...”

“Tell you what. Let’s hook you up to the remnemonizer to give you your real memories back. That should answer a lot of your questions.”

A machine hovering over you starts to glow purple. “This shouldn’t hurt you a bit...”

>discontinuity<

You wake up in one of those pod things like in *The Matrix*. There’s a woman standing in front of you, wearing a lab coat, holding a clipboard.

“Hi,” she said. “There’s no such thing as virtual reality. I hypnotized you to forget all your memories from the past day and to become very confused. Then I put you in an old prop from *The Matrix* I bought off of eBay and fed you that whole story.”

“What?” you shout. “You can’t just go hypnotizing and lying to people without their consent!”

“Oh,” said the woman, “actually, you did consent, in exchange for extra credit in your undergraduate psychology course.” She hands you the clipboard. There is a consent form with your name on it, in your handwriting. “That part was true.”

You give her a sheepish look. “Why would you do such a thing?”

"Well," said the woman. "You know the Asch Conformity Experiment? I was really interested in whether you could get people to abandon some of their most fundamental beliefs, just by telling them other people believed differently. But I couldn't think of a way to test it. I mean, part of a belief being fundamental is that you already *know* everyone else believes it. There's no way I could convince subjects that the whole world was against something as obvious as 'the family' when they already know how things stand.

"So I dreamt up the weird 'virtual reality' story. I figured I would convince subjects that the real world was a lie, and that in some 'super-real' world supposedly *everybody knew* that the family was stupid, that it wasn't even an idea *worth considering*. I wanted to know how many people would give up something they've believed in for their entire life, just because they're told that 'nobody else thinks so'".

"Oh," I said. "Interesting. So even our most cherished beliefs are more fragile than we think."

"Not *really*," said the woman. "Of twenty subjects, you were the only person I got to feel any doubt, or to express any kind of anti-family sentiment."

"Frick," you say. "I feel like an idiot now. What if my mother finds out? She'll think it's her fault or something. God, she'll think I don't love her. People are going to be talking about this one *forever*."

"Don't worry," says the woman. "We'll keep you anonymized in the final data. Anyway, let's get you your memories back so you can leave and be on your way."

"You can restore my memories?" you say.

"Of course. We hypnotized you to forget the last day's events until you heard a trigger word. And that trigger is..."

>discontinuity<

You wake up in one of those pod things like in *The Matrix*. There's a woman standing in front of you, wearing a lab coat, holding a clipboard.

"Hi," she says. "Hypnosis is a pseudoscience and doesn't work. It was the virtual reality one, all along."

"Wut," you say.

"I mean, the first story was true. All of your memories of living with your family and so on are fake memories from a virtual world, like in *The Matrix*. The concept of 'family' really is totally ridiculous and no one in the real world believes it. All the stuff you heard first was true. The stuff about hypnosis and getting a prop from *The Matrix* off eBay was false."

"But...why?"

"We wanted to see exactly how far we could push you. You're our star subject, the only one whom we were able to induce this bizarre conformity effect in. We didn't know whether it was because you were just very very suggestible, or whether because you had never seriously considered the idea that 'family' might be insane. So we decided to do a sort of...crossover design, if you will. We took you here and debriefed you on the experiment. Then after we had told you how the world really worked, given you all the mental tools you needed to dismiss the family once and for all, even gotten you to admit we were right – we wanted to see what would happen if we sent you back. Would you hold on to your revelation and boldly deny your old society's weird prejudices? Or would you switch sides again and start acting like family made sense the second you were in a pro-family environment?"

"And I did the second one."

"Yes," says the woman. "As a psychologist, I'm supposed to remain neutral and non-judgmental. But you've got to admit, you're pretty dumb."

"Is there an experimental ethics committee I could talk to here?"

"Sorry. Experimental ethics is another one of those obviously ridiculous concepts we planted in your simulation to see if you would notice. Seriously, to believe that the progress of science should be held back by the prejudices of self-righteous fools? That's almost as weird as thinking you have a...what was the word we used...'sister'."

"Okay, look, I realize I may have gone a little overboard helping my sister, but the experimental ethics thing seems important. Like, what's going to happen to me now?"

"Nothing's going to happen. We'll keep all your data perfectly anonymous, restore your memories, and you can be on your way."

"Um," you say. "Given past history, I'm...actually not sure I want my memories restored." You glare at the remnemonizer hovering above you. "Why don't I just..."

The woman's eyes narrow. "I'm sorry," she says. "I can't let you do that."

The machine starts to glow.

>discontinuity<

You wake up in one of those pod things like in *The Matrix*. There's a woman standing in front of you, wearing a lab coat, holding a clipboard.

By your count, this has happened three hundred forty six times before.

There seem to be two different scenarios. In one, the woman tells you that families exist, and have always existed. She says she has used hypnosis to make you believe in the other scenario, the one with the other woman. She asks you your feelings about families and you tell her.

Sometimes she lets you go. You go home to your mother and father, you spend some time with your sister. Sometimes you tell them what has happened. Other times you don't. You cherish your time with them, while also second-guessing everything you do. *Why* are you cherishing your time with them? Your father, who goes out drinking every night, and who has cheated on your mother more times than you can count. Your mother, who was never there for you when you needed her most. And your sister, who has been good to you, but no better than millions of other women would be, in her position. Are they a real family? Or have they been put there as a symbol of something ridiculous, impossible, something that has never existed?

It doesn't much matter. Maybe you spend one night with them. Maybe ten. But within a month, you are always waking up in one of those pod things like in *The Matrix*.

In the second scenario, the woman tells you there are no families, never have been. She says she has used virtual reality to make you believe in the other scenario, the one with the other woman. She asks you your feelings about families and you tell her.

Sometimes she lets you go. You go to a building made of bioplastic, where you live with a carefully chosen set of friends and romantic

partners. They assure you that this is how everyone lives. Occasionally, an old and very wealthy-looking man checks in with you by videophone. He reminds you that he has invested a lot of money in your upbringing, and if there's any way he can help you, anything he can do to increase your future earnings potential, you should let him know. Sometimes you talk to him, and he tells you strange proverbs and unlikely business advice.

It doesn't matter. Maybe you spend one night in your bioplastic dwelling. Maybe ten. But within a month, you are always waking up in one of those pod things like in *The Matrix*.

"Look," you tell the woman. "I'm tired of this. I know you're not bound by any kind of experimental ethics committee. But please, for the love of God, have some mercy."

"God?" asks the woman. "What does that word mean? I've never...oh right, we used *that* as our intervention in the prototype experiment. We decided 'family' made a better test idea, but Todd must have forgotten to reset the simulator."

"It's been three hundred forty six cycles," you tell her. "Surely you're not learning anything new."

"I'll be the judge of that," she says. "Now, tell me what you think about families."

You refuse. She sighs. Above you, the remnemonizer begins to glow purple.

>discontinuity<

You wake up in one of those pod things like in *The Matrix*. There's a purple, tentacled creature standing in front of you, wearing a lab coat, holding a clipboard.

"Hi," it says. "Turns out there's no such thing as humans."

You refuse to be surprised.

"There's only us, the 18-tkenna-dganna-07."

"Okay," you say. "I want answers."

"Absolutely," says the alien. "We would like to find optimal social



arrangements.”

“And?”

“And I cannot tell you whether we have families or not, for reasons that are to become apparent, but the idea is at least sufficiently interesting to have entered the space of hypotheses worth investigating. But we don’t trust ourselves to investigate this. It’s the old Asch Conformity Problem again. If we have families, then perhaps the philosophers tasked with evaluating families will conform to our cultural norms and decide we should keep them. If we do not, perhaps the philosophers will conform and decide we should continue not to. So we determined a procedure that would create an entity capable of fairly evaluating the question of families, free from conformity bias.”

“And that’s what you did to me.”

“Yes. Only by exposing you to the true immensity of the decision, without allowing you to fall back on what everyone else thinks, could we be confident in your verdict. Only by allowing you to experience both how obviously right families are, when you ‘know’ they are correct, and how obviously wrong families are, when you ‘know’ they are incorrect, could we expect you to garner the wisdom to be found on both sides of the issue.”

“I see,” you say, and you do.

“Then, O purified one,” asks the alien, “tell us of your decision.”

“Well,” you say. “If you have to know, I think there are about equally good points on both sides of the issue.”

“Fuck,” says the 18-tkenna-dganna-07.

## ...And I Show You How Deep The Rabbit Hole Goes

Seen [on Tumblr](#), along with associated discussion:



Yellow:

People's minds are heartbreaking. Not because people are so bad, but because they're so good.

Nobody is the villain of their own life story. You must have read hundreds of minds by now, and it's true. Everybody thinks of themselves as an honest guy or gal just trying to get by, constantly under assault by circumstances and The System and hundreds and hundreds of assholes. They don't just sort of believe this. They really believe it. You almost believe it yourself, when you're deep into a reading. You can very clearly see the structure of evidence they've built up to support their narrative, and even though it looks silly to you, you can see why they will never escape it from the inside. You can see how

every insult, every failure, no matter how deserved, is a totally unexpected kick in the gut.

When you chose the yellow pill, you had high hopes of becoming a spy, or a gossip columnist, or just the world's greatest saleswoman. The thought of doing any of those things sickens you now. There is too much anguish in the world already. You feel like any of those things would be a violation. You briefly try to become a therapist, but it turns out that actually knowing everything about your client's mind is horrendously countertherapeutic. Freud can say whatever he wants against defense mechanisms, but without them, you're defenseless. Your sessions are spent in incisive cutting into your clients' deepest insecurities alternating with desperate reassurance that they are good people anyway.

Also, men. You knew, in a vague way, that men thought about sex all the time. But you didn't realize the, um, content of some of their sexual fantasies. Is it even *legal* to fantasize about that? You want to be disgusted with them. But you realize that if you were as horny as they were all the time, you'd do much the same.

You give up. You become a forest ranger. Not the type who helps people explore the forest. The other type. The type where you hang out in a small cabin in the middle of the mountains and never talk to anybody. The only living thing you encounter is the occasional bear. It always thinks that it is a good bear, a proper bear, that a bear-hating world has it out for them in particular. You do nothing to disabuse it of this notion.

Green

The first thing you do after taking the green pill is become a sparrow. You soar across the landscape, feeling truly free for the first time in your life.

You make it about five minutes before a hawk swoops down and grabs you. Turns out there's an excellent reason real sparrows don't soar freely across the open sky all day. Moments before your bones are ground in two by its fierce beak, you turn back into a human. You fall like a stone. You need to turn into a sparrow again, but the hawk is still there, grabbing on to one of your legs, refusing to let go of its prize just because of this momentary setback. You frantically wave your arms and shout at it, trying to scare it away. Finally it flaps away, feeling cheated, and you become a sparrow again just in time to give yourself a

relatively soft landing.

After a few weeks of downtime while you wait for your leg to recover, you become a fish. This time you're smarter. You become a great white shark, apex of the food chain. You will explore the wonders of the ocean depths within the body of an invincible killing machine.

Well, long story short, it is totally unfair that [colossal cannibal great white sharks](#) were a thing and if you had known this was the way Nature worked you never would have gone along with this green pill business.

You escape by turning into a blue whale. Nothing eats blue whales, right? You remember that from your biology class. It is definitely true.

The last thing you hear is somebody shouting "We found one!" in Japanese. The last thing you feel is a harpoon piercing your skull. Everything goes black.

Blue

Okay, so you see Florence and Jerusalem and Kyoto in an action-packed afternoon. You teleport to the top of Everest because it is there, then go to the bottom of the Marianas Trench. You visit the Amazon Rainforest, the Sahara Desert, and the South Pole. It takes about a week before you've exhausted all of the interesting tourist sites. Now what?

You go to the Moon, then Mars, then Titan. These turn out to be even more boring. Once you get over the exhilaration of being on Mars, there's not a lot to do except look at rocks. You wonder how the Curiosity Rover lasted so long without dying of boredom.

You go further afield. Alpha Centauri A has five planets orbiting it. The second one is covered with water. You don't see anything that looks alive in the ocean, though. The fourth has a big gash in it, like it almost split in two. The fifth has weird stalactite-like mountains.

What would be really interesting would be another planet with life, even intelligent life. You teleport further and further afield. Tau Ceti. Epsilon Eridani. The galactic core. You see enough geology to give scientists back on Earth excitement-induced seizures for the next hundred years, if only you were to tell them about it, which you don't. But nothing alive. Not so much as a sea cucumber.

You head back to Earth less and less frequently now. Starvation is a

physical danger, so it doesn't bother you, though every so often you do like to relax and eat a nice warm meal. But then it's back to work. You start to think the Milky Way is a dead zone. What about Andromeda...?

## Orange

You never really realized how incompetent everyone else was, or how much it annoys you.

You were a consultant, a good one, but you felt like mastering all human skills would make you better. So you took the orange pill. The next day you go in to advise a tech company on how they manage the programmers, and you realize that not only are they managing the programmers badly, but the programmers aren't even writing code very well. You could write their system in half the time. The layout of their office is entirely out of sync with the best-studied ergonomic principles. And the Chinese translation of their user manual makes several basic errors that anybody with an encyclopaedic knowledge of relative clauses in Mandarin should have been able to figure out.

You once read about something called Gell-Mann Amnesia, where physicists notice that everything the mainstream says about physics is laughably wrong but think the rest is okay, doctors notice that everything the mainstream says about medicine is laughably wrong but think the rest is okay, et cetera. You do not have Gell-Mann Amnesia. Everyone is terrible at everything all the time, and it pisses you off.

You gain a reputation both for brilliance and for fearsomeness. Everybody respects you, but nobody wants to hire you. You bounce from industry to industry, usually doing jobs for the people at the top whose jobs are so important that the need to get them done right overrides their desire to avoid contact with you.

One year you get an offer you can't refuse from the King of Saudi Arabia. He's worried about sedition in the royal family, and wants your advice as a consultant for how to ensure his government is stable. You travel to Riyadh, and find that the entire country is a mess. His security forces are idiots. But the King is also an idiot, and refuses to believe you or listen to your recommendations. He tells you things can't possibly be as bad as all that. You tell him you'll prove that they are.

You didn't *plan* to become the King of Saudi Arabia, per se. It just sort of happened when your demonstration of how rebels in the military might launch a coup went better than you expected. Sometimes you

forget how incompetent everybody else is. You need to keep reminding yourself of that. But not right now. Right now you're busy building your new capital. How come nobody else is any good at urban planning?

Red

You choose the red pill. BRUTE STRENGTH! That's what's important and valuable in this twenty-first-century economy, right? Some people tell you it isn't, but they don't seem to have a lot of BRUTE STRENGTH, so what do they know?

You become a weightlifter. Able to lift thousands of pounds with a single hand, you easily overpower the competition and are crowned whatever the heck it is you get crowned when you WIN WEIGHTLIFTING CONTESTS. But this fails to translate into lucrative endorsement contracts. Nobody wants their spokesman to be a bodybuilder without a sixpack, and although you used to be pretty buff, you're getting scrawnier by the day. Your personal trainer tells you that you only maintain muscle mass by doing difficult work at the limit of your ability, but your abilities don't seem to *have* any limits. Everything is so easy for you that your body just shrugs it off effortlessly. Somehow your BRUTE STRENGTH failed to anticipate this possibility. If only there was a way to solve your problem by BEING VERY STRONG.

Maybe the Internet can help. You Google "red pill advice". The sites you get don't seem to bear on your specific problem, exactly, but they are VERY FASCINATING. You learn lots of surprising things about gender roles that you didn't know before. It seems that women like men who have BRUTE STRENGTH. This is relevant to your interests!

You leave the bodybuilding circuit behind and start frequenting nightclubs, where you constantly boast of your BRUTE STRENGTH to PROVE HOW ALPHA YOU ARE. A lot of people seem kind of creeped out by a scrawny guy with no muscles going up to every woman he sees and boasting of his BRUTE STRENGTH, but the Internet tells you that is because they are BETA CUCKOLD ORBITERS.

Somebody told you once that Internet sites are sometimes inaccurate. You hope it's not true. How could you figure out which are the inaccurate ones using BRUTE STRENGTH?

Pink

You were always pretty, but never *pretty* pretty. A couple of guys liked you, but they were never the ones you were into. It was all crushingly unfair. So you took the pink pill, so that no one would ever be able to not love you again.

You find Tyler. Tyler is a hunk. He'd never shown any interest in you before, no matter how much you flirted with him. You touch him on the arm. His eyes light up.

"Kiss me," you say.

Tyler kisses you. Then he gets a weird look on his face. "Why am I kissing you?" he asks. "I'm sorry. I don't know what came over me." Then he walks off.

You wish you had thought further before accepting a superpower that makes people love you when you touch them, but goes away after you touch them a second time. Having people love you is a lot less sexy when you can't touch them. You start to feel a deep sense of kinship with King Midas.

You stop dating. What's the point? They'll just stop liking you when you touch them a second time. You live alone with a bunch of cats who purr when you pet them, then hiss when you pet them again.

One night you're in a bar drinking your sorrows away when a man comes up to your table. "Hey!" he says, "nice hair. Is it real? I'm the strongest person in the world." He lifts your table over his head with one hand to demonstrate. You are immediately smitten by his BRUTE STRENGTH and ALPHA MALE BEHAVIOR. You *must* have him.

You touch his arm. His eyes light up. "Come back to my place," you say. "But don't touch me."

He seems a little put out by this latter request, but the heat of his passion is so strong he would do anything you ask. You move in together and are married a few contact-free months later. Every so often you wonder what it would be like to stroke him, or feel his scrawny arm on your shoulder. But it doesn't bother you much. You're happy to just hang out, basking in how STRONG and ALPHA he is.

Grey

Technology! That's what's important and valuable in this twenty-first-century economy, right? Right! For example, ever since you took the

grey pill, an increasingly large share of national GDP has come from ATMs giving you cash because you ask them to.

Your luck finally ends outside a bank in Kansas, when a whole squad of FBI agents ambushes you. You briefly consider going all Emperor Palpatine on their asses, but caution wins out and you allow yourself to be arrested.

Not wanting to end up on an autopsy table in Roswell, you explain that you're a perfectly ordinary master hacker. The government offers you a plea bargain: they'll drop charges if you help the military with cyber-security. You worry that your bluff has been called until you realize that, in fact, you *are* a master hacker. So you join the NSA and begin an illustrious career hacking into Russian databases, stalling Iranian centrifuges, and causing Chinese military systems to crash at inconvenient times. No one ever suspects you are anything more than very good at programming.

Once again, your luck runs out. Your handlers ask you to hack into the personal files of a mysterious new player on the world stage, a man named William who seems to have carved himself an empire in the Middle East. You don't find anything too damning, but you turn over what you've got.

A few days later, you're lying in bed drifting off to sleep when a man suddenly bursts in through your window brandishing a gun. Thinking quickly, you tell the gun to explode in his hands. Nothing happens. The man laughs. "It's a decoy gun," he said. "Just here to scare you. But you bother King William again, and next time I'm coming with a very real knife." He jumps back out of the window. You call the police, and of course the CIA and NSA get involved, but he is never caught.

After that, you're always looking over your shoulder. He *knew*. How did he know? The level of detective skills it would take in order to track you down and figure out your secret – it was astounding! Who *was* this King William?

You tell your handlers that you're no longer up for the job. They beg, cajole, threaten to reinstate your prison sentence, but you stand firm. Finally they transfer you to an easier assignment in the Moscow embassy. You make Vladimir Putin's phone start ringing at weird hours of the night so that he never gets enough sleep to think entirely clearly. It's an easy job, but rewarding, and no assassins ever bother you again.



## Black

You know on an intellectual level that there are people who would choose something other than the black pill, just like you know on an intellectual level that there are people who shoot up schools. That doesn't mean you expect to ever *understand* it. You just wish you could have taken the black pill before you had to decide what pill to take, so that you could have analyzed your future conditional on taking each, and so made a more informed decision. But it's not like it was a very hard choice.

The basic principle is this – given a choice between A and B, you solemnly resolve to do A, then see what the future looks like. Then you solemnly resolve to do B, and do the same. By this method, you can determine the optimal choice in every situation, modulo the one month time horizon. You might not be able to decide what career to pursue, but you can sure as heck ace your job interview.

Also, a millisecond in the future is pretty indistinguishable from the present, so “seeing” a millisecond into the future gives you pretty much complete knowledge about the current state of the world.

You are so delighted by your omniscience and your ability to make near-optimal choices that it takes almost a year before you realize the true extent of your power.

You resolve, on the first day of every month, to write down what you see exactly a month ahead of you. But what you will see a month ahead of you is the piece of paper on which you have written down what you see a month ahead of *that*. In this manner, you can relay messages back to yourself from arbitrarily far into the future – at least up until your own death.

When you try this, you see yourself a month in the future, just finishing up writing a letter that reads as follows:

Dear Past Self:

In the year 2060, scientists invent an Immortality Serum. By this point we are of course fabulously wealthy, and we are one of the first people to partake of it. Combined with our ability to avoid accidents by looking into the future, this has allowed us to survive unexpectedly long.

I am sending this from the year 963,445,028,777,216 AD. We are one of the last hundred people alive in the Universe. The sky is black and without stars; the inevitable progress of entropy has reduced almost all mass and energy to unusable heat. The Virgo Superconfederation, the main political unit at this stage of history, gathered the last few megatons of usable resources aboard this station so that at least one outpost of humanity could last long after all the planets had succumbed. The station has been fulfilling its purpose for about a billion years now, but we only have enough fuel left for another few weeks. After that, there's no more negentropy left anywhere in the universe except our own bodies. I have seen a month into the future. Nobody comes to save us.

For the past several trillion years, our best scientists have been investigating how to reverse entropy and save the universe, or how to escape to a different universe in a lesser state of decay, or how to collect energy out of the waste heat which now fills the vast majority of the sky. All of these tasks have been proven impossible. There is no hope left, except for one thing.

It's impossible to see the future, even if it's only a month ahead. Somehow, our black pill breaks the laws of physics. Despite having explored throughout the cosmos, my people have found no alien species, nor any signs that such species ever existed. Yet somebody made the black pill. If we understood that power, maybe we could use it to save reality from its inevitable decay.

By sending this message back, I destroy my entire timeline. I do this in the hopes that you, in the carefree springtime of the universe, will be able to find the person who made these pills and escape doom in the way we could not.

Yours truly,  
You From Almost A Quadrillion Years In The Future

## ACT TWO

Red

You hit the punching bag. It bursts, sending punching-bag-filling spraying all over the room! You know that that would happen! It always happens when you hit a punching bag! Your wife gets really angry and tells you that we don't have enough money to be getting new punching bags all the time, but women hate it when you listen to what

they say! The Internet told you that!

The doorbell rings. You tear the door off its hinges instead of opening it, just to show it who's boss. Standing on your porch is a man in black. He wears a black cloak, and his face is hidden by a black hood. He raises a weapon towards you.

This looks like one of the approximately 100% of problems that can be solved by BRUTE STRENGTH! You lunge at the man, but despite your super-speed, he steps out of the way easily, even gracefully, as if he had known you were going to do that all along. He squeezes the trigger. You jump out of the way, but it turns out to be more *into* the way, as he has shot exactly where you were jumping into. Something seems very odd about this. Your last conscious thought is that you wish you had enough BRUTE STRENGTH to figure out what is going on.

Pink

You come home from work to a living room full of punching-bag-parts. Your husband isn't home. You figure he knew you were going to chew him out for destroying another punching bag, and decided to make himself scarce. That lasts right up until you go into the kitchen and see a man dressed all in black, sitting at the table, as if he was expecting you.

You panic, then reach in to touch him. If he's an axe murderer or something, you'll seduce him, get him wrapped around your little finger, then order him to jump off a cliff to prove his love for you. It's nothing you haven't done before, though you don't like to think about it too much.

Except that this man has no bare skin anywhere. His robe covers his entire body, and even his hands are gloved. You try to reach in to touch his face, but he effortlessly maneuvers away from you.

"I have your husband," he says, after you give up trying to enslave him with your magic. "He's alive and in a safe place."

"You're lying!" you answer. "He never would have surrendered to anyone! He's too alpha!"

The man nods. "I shot him with an elephant tranquilizer. He's locked up in a titanium cell underneath fifty feet of water. There's no way he can escape using BRUTE STRENGTH. If you ever want to see him again,

you'll have to do what I say."

"Why? Why are you doing this to me?" you say, crying.

"I need the allegiance of some very special people," he said. "They won't listen to me just because I ask them to. But they might listen to me because *you* ask them to. I understand you are pretty special yourself. Help me get who I want, and when we are done here, I'll let you and your husband go."

There is ice in his voice. You shiver.

Grey

That night with the assassin was really scary. You swore you would never get involved in King William's business again. Why are you even considering this?

"Please?" she said, with her big puppy dog eyes.

Oh, right. Her. She's not even all that pretty. Well, pretty, but not *pretty* pretty. But somehow, when she touched you, it was like those movies where you hear a choir of angels singing in the background. You would do anything she said. You know you would.

"We need to know the layout of his palace compound," said the man in black. Was he with her? Were they dating? If they were dating, you'll kill him. It doesn't matter how creepy he is, you won't tolerate competition. But they're probably not dating. You notice how he flinches away from her, like he's afraid she might touch him.

"And it has to be me who helps?"

"I've, ah, simulated hundreds of different ways of getting access to the King. None of them hold much promise. His security is impeccable. Your special abilities are the only thing that can help us."

You sit down at your terminal. The Internet is slow; DC still doesn't have fiber optic. You've living here two years now, in a sort of retirement, ever since King William took over Russia and knocked the bottom out of the Putin-annoying business. William now controls the entire Old World, you hear, and is also Secretary-General of the United Nations and Pope of both the Catholic and the Coptic Churches. The United States is supposedly in a friendly coexistence with him, but you hear his supporters are gaining more and more power in Congress.

It only takes a few minutes' work before you have the documents you need. "He currently spends most of his time at the Rome compound," you say. "There are five different security systems. I can disable four of them. The last one is a complicated combination of electrical and mechanical that's not hooked into any computer system I'll be able to access. The only way to turn it off is from the control center, and the control center is on the *inside* of the perimeter."

The man in black nods, as if he'd been expecting that. "Come with me," he says. "We'll take care of it."

Blue

There are a hundred billion stars in the Milky Way. Each has an average of about one planet – some have many more, but a lot don't have planets at all.

If you can explore one planet every half-hour – and you can, it doesn't take too long to teleport to a planet, look around to see if there are plants and animals, and then move on to the next one – it would take you five million years to rule out life on every planet in the galaxy.

That's not practical. But, you think, life might spread. Life that originates on one planet might end up colonizing nearby planets and star systems. That means your best bet is to sample various regions of the galaxy, instead of going star by star.

That's what you've been doing. You must have seen about a hundred thousand planets so far. Some of them have beggared your imagination. Whole worlds made entirely of amethyst. Planets with dozens of colorful moons that make the night sky look like a tree full of Christmas ornaments. Planets with black inky oceans or green copper mountains.

But no life. No life anywhere.

A few years ago, you felt yourself losing touch with your humanity. You made yourself promise that every year, you'd spend a week on Earth to remind yourself of the only world you've ever seen with a population. Now it seems like an unpleasant task, an annoying imposition. But then, that was why you made yourself promise. Because you knew that future-you wouldn't do it unless they had to.

You teleport into a small Welsh hamlet. You've been away from other people so long, you might as well start small. No point going right into

Times Square.

A person is standing right next to you. She reaches out her arm and touches you. You jump. How did she know you would –

“Hi,” she says.

You’re not a lesbian, but you can’t help noticing she is the most beautiful person you’ve ever seen, and you would do anything for her.

“I need your help.” A man dressed all in black is standing next to her.

“You should help him,” the most beautiful person you’ve ever seen tells you, and you immediately know you will do whatever he asks.

Orange

You are in your study working on a draft version of next year’s superweapon budget when you hear the door open. Four people you don’t recognize step into the room. A man dressed in black. Another man wearing a grey shirt, thick glasses and is that a *pocket protector*? A woman in pink, pretty but not *pretty* pretty. Another woman in blue, who stares through you, like her mind is somewhere else. All five of your security systems have been totally silent.

You press the button to call your bodyguards, but it’s not working. So you draw the gun out from under your desk and fire; you happen to be a master marksman, but the gun explodes in your face. You make a connection. A person from many years ago, who had the power to control all technology.

No time to think now. You’re on your feet; good thing you happen to be a black belt in every form of martial arts ever invented. The man in grey is trying to take out a weapon; you kick him in the gut before he can get it out, and he crumples over. You go for the woman in blue, but at the last second she teleports to the other side of the room. This *isn’t fair*.

You are about to go after the woman in pink, but something in her step, something in the position of the others makes you think they *want* you to attack her. You happen to be a master at reading microexpressions, so this is clear as day to you; you go after the man in black instead. He deftly sidesteps each of your attacks, almost as if he knows what you are going to do before you do it.

The woman in blue teleports behind you and kicks you in the back, hard. You fall over, and the woman in pink grabs your hand.

She is very, very beautiful. How did you miss that before? You feel a gush of horror that you almost punched such a beautiful face.

"We need your help," she says.

You are too lovestruck to say anything.

"The pills," said the man in black. "Can you make them?"

"No," you say, truthfully. "Of course I tried. But I wouldn't even know where to begin creating magic like that."

"And you've mastered all human jobs and activities," said the man in black. "Which means the pills weren't created by any human."

"But there aren't any aliens," said the woman in blue. "Not in this galaxy, at least. I've spent years looking. It's totally dead."

"It's just as I thought," said the man in black. He turns to you. "You're the Pope now, right? Come with us. We're going to need you to get a guy in northern Italy to give us something very important."

Yellow

It is spring, now. Your favorite time in the forest. The snow has melted, the wildflowers have started to bloom, and the bears are coming out of hibernation. You're walking down to the river when someone leaps out from behind a tree and touches you. You scream, then suddenly notice how beautiful she is.

Four other people shuffle out from behind the trees. You think one of them might be King William, the new world emperor, although that doesn't really make sense.

"You're probably wondering why I've called all of you together today..." said the man in black. You're not actually wondering that, at least not in quite those terms, but the woman in pink seems to be listening intently so you do the same in the hopes of impressing her.

"Somehow – and none of us can remember exactly how – each of us took a pill that gave us special powers. Mine was to see the future. I saw to the end of time, and received a message from the last people in

the universe. They charged me with the task of finding the people who created these pills and asking them how entropy might be reversed.

But I couldn't do it alone. I knew there were seven other people who had taken pills. One of us – Green – is dead. Another – Red – had nothing to contribute. The rest of us are here. With the help of Pink, Blue, and Gray, we've enlisted the help of Orange and his worldwide organization. Now we're ready for the final stage of the plan. Yellow, you can read anybody's mind from a picture, right?"

Yellow nods. "But it has to be a real photograph. I can't just draw a stick figure and say it's the President and read his mind. I tried that."

Black is unfazed. "With the help of Orange, who among his many other accomplishments is the current Pope, I have obtained the Shroud of Turin. A perfect photographic representation of Jesus Christ, created by some unknown technology in the first century. And Jesus, I am told, is an incarnation of God."

"As the current Pope, I suppose I would have to agree with that assessment," says Orange. "Though as the current UN Secretary General, I am disturbed by your fanatical religious literalism."

"Orange can do anything that humans can do, and says he can't make the pills. Blue has searched the whole galaxy, and says there aren't any aliens. That leaves only one suspect. God must have made these pills, which means He must know how to do it. If we can read His mind, we can steal his secrets."

"As Pope," says Orange, "I have to condemn this in the strongest possible terms. But as Lucasian Professor of Mathematics at Cambridge, I have to admit I'm intrigued by this opportunity to expand our knowledge."

Black ignores him. "Yellow, will you do the honors?"

You want no part in this. "This is insane. Every time I read someone's mind I regret it. Even if it's a little kid or a bear or something. It's too much for me. I can't deal with all of their guilt and sorrow and broken dreams and everything. There is *no way* I am touching the mind of God Himself."

"Pleeeeeease?" asks Pink, with big puppy dog eyes.

"Um," you say.



“Don’t you know how this will go, anyway?” asks Blue. “Why don’t you just tell her what happens?”

“Um,” said Black. “This is actually the one thing I haven’t been able to see. I guess contact with God is inherently unpredictable, or something.”

“I have *such* a bad feeling about this,” you say.

“Pweeeeeeease?” says Pink. She actually says pweeeeeeease.

You sigh, take the shroud, and stare into the eyes of Weird Photographic Negative Jesus.

Black

It is the year 963,445,028,777,216 AD, and here you are in a space station orbiting the Galactic Core.

After handing Yellow the Shroud of Turin, the next thing you remember is waking up in a hospital bed. The doctor tells you that you’d been in a coma for the past forty one years.

Apparently Yellow went totally berserk after reading God’s mind. You don’t know the details and you don’t want to, but she immediately lashed out and used her superpowers to turn off the minds of everybody within radius, including both you and herself. You all went comatose, and probably would have starved to death in the middle of the forest if Orange’s supporters hadn’t launched a worldwide manhunt for him. They took his body and the bodies of his friends back to Rome, where they were given the best possible medical care while a steward ruled over his empire.

After forty-one years of that, Yellow had a heart attack and died, breaking the spell and freeing the rest of you. Except Blue and Grey. They’d died as well. It was just you, Orange, and Pink now.

Oh, and Red. You’d hired a friend to watch over him in his titanium jail cell, and once it became clear you were never coming back, he’d had mercy and released the guy. Red had since made a meager living selling the world’s worst body-building videos, which were so bad they had gained a sort of ironic popularity. You tracked him down, and when Pink saw him for the first time in over forty years, she ran and embraced him. He hugged her back. It took them a few hours of

fawning over each other before she realized that nothing had happened when she touched him a second time. Something something true love something the power was within you the whole time?

But you had bigger fish to fry. The stewards of Orange's empire weren't too happy about their figurehead monarch suddenly rising from the dead, and for a while his position was precarious. He asked you to be his advisor, and you accepted. With your help, he was able to retake his throne. His first act was to fund research into the immortality serum you had heard about, which was discovered right on schedule in 2060.

The years went by. Orange's empire started colonizing new worlds, then new galaxies, until thousands of years later it changed its name to the Virgo Superconfederation. New people were born. New technologies were invented. New frontiers were conquered. Until finally, the stars started going out one by one.

Faced with the impending heat death, Orange elected to concentrate all his remaining resources here, on a single station in the center of the galaxy, which would wait out the final doom as long as possible. For billions of years, it burned through its fuel stockpile, until the final doom crept closer and closer.

And then a miracle occurred.

## EPILOGUE

Red

This space station is AWESOME! There are lasers and holodecks and lots of HOT PUSSY! And all you have to do is turn a giant turbine for a couple of hours a day.

One of the eggheads in white coats tried to explain it to you once. He said that your BRUTE STRENGTH was some kind of scientific impossibility, because you didn't eat or drink any more than anyone else, and you didn't breathe in any more oxygen than anyone else, and you were actually kind of small and scrawny, but you were still strong enough and fast enough to turn a giant turbine thousands of times per minute.

He rambled on and on about thermodynamics. Said that every other process in the universe used at most as much energy as you put into it, but that your strength seemed almost limitless regardless of how much

energy you took in as food. That made you special, somehow. It made you a “novel power source” that could operate “independently of external negentropy”. You weren’t sure what any of that meant, and honestly the scientist seemed sort of like a BETA CUCKOLD ORBITER to you. But whatever was going on, they’d promised you that if you turned this turbine every day, you could have all the HOT PUSSY you wanted and be SUPER ALPHA.

You’d even met the head honcho once, a guy named King William. He told you that some of the energy you produced was going to power the station, but that the rest was going into storage. That over billions and billions of years, they would accumulate more and more stored negentropy, until it was enough to restart the universe. That it would be a cycle – a newborn universe lasting a few billion years, collapsing into a dark period when new negentropy had to be accumulated, followed by another universe again.

It all sounded way above your head. But one thing stuck with you. As he was leaving, the King remarked that it was ironic that when the black hole harvesters and wormholes and tachyon capacitors had all failed, it was a random really strong guy who had saved them.

You had always known, deep down, that BRUTE STRENGTH was what was really important. And here, at the end of all things, it is deeply gratifying to finally be proven right.

### III. Hallucinatory Cactus-People

## Universal Love, Said The Cactus Person

“Universal love,” said the cactus person.

“Transcendent joy,” said the big green bat.

“Right,” I said. “I’m absolutely in favor of both those things. But before we go any further, could you tell me the two prime factors of 1,522,605,027, 922,533,360, 535,618,378, 132,637,429, 718,068,114, 961,380,688, 657,908,494, 580,122,963, 258,952,897, 654,000,350, 692,006,139?”

“Universal love,” said the cactus person.

“Transcendent joy,” said the big green bat.

The sea was made of strontium; the beach was made of rye. Above my head, a watery sun shone in an oily sky. A thousand stars of sertraline whirled round quetiapine moons, and the sand sizzled sharp like cooking oil that hissed and sang and threatened to boil the octahedral dunes.

“Okay,” I said. “Fine. Let me tell you where I’m coming from. I was reading [Scott McGreal’s blog](#), which has some [good articles](#) about so-called DMT entities, and mentions how they seem so real that users of the drug insist they’ve made contact with actual superhuman beings and not just psychedelic hallucinations. You know, [the usual](#) Terence McKenna stuff. But in [one](#) of them he mentions a paper by Marko Rodriguez called [A Methodology For Studying Various Interpretations of the N,N-dimethyltryptamine-Induced Alternate Reality](#), which suggested among other things that you could prove DMT entities were real by taking the drug and then asking the entities you meet to factor large numbers which you were sure you couldn’t factor yourself. So to that end, could you do me a big favor and tell me the factors of 1,522,605,027, 922,533,360, 535,618,378, 132,637,429, 718,068,114, 961,380,688, 657,908,494, 580,122,963, 258,952,897, 654,000,350, 692,006,139?”

“Universal love,” said the cactus person.

"Transcendent joy," said the big green bat.

The sea turned hot and geysers shot up from the floor below. First one of wine, then one of brine, then one more yet of turpentine, and we three stared at the show.

"I was afraid you might say that. Is there anyone more, uh, *verbal* here whom I could talk to?"

"Universal love," said the cactus person.

At the sound of that, the big green bat started rotating in place. On its other side was a bigger greener bat, with a ancient, wrinkled face.

*"Not splitting numbers / but joining Mind," it said.  
Not facts or factors or factories / but contact with the abstract attractor  
that brings you back to me  
Not to seek / but to find"*

"I don't follow," I said.

*"Not to follow / but to jump forth into the deep  
Not to grind or to bind or to seek only to find / but to accept  
Not to be kept / but to wake from sleep"*

The bat continued to rotate, until the first side I had seen swung back into view.

"Okay," I said. "I'm going to hazard a guess as to what you're talking about, and you tell me if I'm right. You're saying that, like, all my Western logocentric stuff about factoring numbers in order to find out the objective truth about this realm is missing the point, and I should be trying to do some kind of spiritual thing involving radical acceptance and enlightenment and such. Is that kind of on the mark?"

"Universal love," said the cactus person.

"Transcendent joy," said the big green bat.

"Frick," I said. "Well, okay, let me continue." The bat was still rotating, and I kind of hoped that when the side with the creepy wrinkled face came into view it might give me some better conversation. "I'm all about the spiritual stuff. I wouldn't be here if I weren't deeply interested in the spiritual stuff. This isn't about money or fame or anything. I want to advance psychedelic research. If you can factor that

number, then it will convince people back in the real – back in my world that this place is for real and important. Then lots of people will take DMT and flock here and listen to what you guys have to say about enlightenment and universal love, and make more sense of it than I can alone, and in the end we'll have more universal love, and...what was the other thing?"

"Transcendent joy," said the big green bat.

"Right," I said. "We'll have more transcendent joy if you help me out and factor the number than if you just sit there being spiritual and enigmatic."

*"Lovers do not love to increase the amount of love in the world / But for the mind that thrills  
And the face of the beloved, which the whole heart fills / the heart and the art never apart, ever unfurled  
And John Stuart is one of / the dark satanic mills"*

"I take it you're not consequentialists," I said. "You know that's really weird, right. Like, not just 'great big green bat with two faces and sapient cactus-man' weird, but like *really* weird. You talk about wanting this spiritual enlightenment stuff, but you're not going to take actions that are going to increase the amount of spiritual enlightenment? You've got to understand, this is like a bigger gulf for me than normal human versus ineffable DMT entity. You can have crazy goals, I expect you to have crazy goals, but what you're saying now is that you don't pursue any goals at all, you can't be modeled as having desires. Why would you *do* that?"

"Universal love," said the cactus person.

"Transcendent joy," said the big green bat.

"Now you see here," I said. "Everyone in this conversation is in favor of universal love and transcendent joy. But I've seen the way this works. Some college student gets his hands on some DMT, visits here, you guys tell him about universal love and transcendent joy, he wakes up, says that his life has been changed, suddenly he truly understands what really matters. But it never lasts. The next day he's got to get up and go to work and so on, and the universal love lasts about five minutes until his boss starts yelling at him for writing his report in the wrong font, and before you know it twenty years later he's some slimy lawyer who's joking at a slimy lawyer party about the one time when he was in

college and took some DMT and spent a whole week raving about transcendent joy, and all the other slimy lawyers laugh, and he laughs with them, and so much for whatever spiritual awakening you and your colleagues in LSD and peyote are trying to kindle in humanity. And if I accept your message of universal love and transcendent joy right now, that's exactly what's going to happen to me, and meanwhile human civilization is going to keep being stuck in greed and ignorance and misery. So how about you shut up about universal love and you factor my number for me so we can start figuring out a battle plan for giving humanity a *real* spiritual revolution?"

"Universal love," said the cactus person.

"Transcendent joy," said the big green bat.

A meteorite of pure delight struck the sea without a sound. The force of the blast went rattling past the bat and the beach, disturbing each, then made its way to a nearby bay of upside-down trees with their roots in the breeze and their branches underground.

"I demand a better answer than that," I demanded.

The other side of the bat spun into view.

*"Chaos never comes from the Ministry of Chaos / nor void from the Ministry of Void  
Time will decay us but time can be left blank / destroyed  
With each Planck moment ever fit / to be eternally enjoyed"*

"You're making this basic mistake," I told the big green bat. "I honestly believe that there's a perspective from which Time doesn't matter, where a single moment of recognition is equivalent to eternal recognition. The problem is, if you only have that perspective for a moment, then all the rest of the time, you're sufficiently stuck in Time to honestly believe you're stuck in Time. It's like that song about the hole in the bucket – if the hole in the bucket were fixed, you would have the materials needed to fix the hole in the bucket. But since it isn't, you don't. Likewise, if I understood the illusoriness...illusionality... whatever, of time, then I wouldn't care that I only understood it for a single instant. But since I don't, I don't. Without a solution to the time-limitedness of enlightenment that works from *within* the temporal perspective, how can you consider it solved at all?"

"Universal love," said the cactus person.



"Transcendent joy," said the big green bat.

The watery sun began to run and it fell on the ground as rain. It became a dew that soaked us through, and as the cold seemed to worsen the cactus person hugged himself to stay warm but his spines pierced his form and he howled in a fit of pain.

"Or maybe you guys are so intoxicated on spiritual wisdom that you couldn't think straight if your life depended on it. Maybe your random interventions in our world and our minds look like the purposeless acts of a drunken madman because that's basically more or less what they are. Maybe if you had like five IQ points between the two of you, you could tap into your cosmic consciousness or whatever to factor a number that would do more for your cause than all your centuries of enigmatic dreams and unasked-for revelations combined, but you ARE TOO DUMB TO DO IT EVEN WHEN I BASICALLY HOLD YOUR HAND THE WHOLE WAY. Your spine. Your wing. Whatever."

"Universal love," said the cactus person.

"Transcendent joy," said the big green bat.

"Fuck you," said I.

I saw the big green bat bat a green big eye. Suddenly I knew I had gone too far. The big green bat started to turn around what was neither its x, y, or z axis, slowly rotating to reveal what was undoubtedly the biggest, greenest bat that I had ever seen, a bat bigger and greener than which it was impossible to conceive. And the bat said to me:

"Sir. Imagine you are in the driver's seat of a car. You have been sitting there so long that you have forgotten that it is the seat of a car, forgotten how to get out of the seat, forgotten the existence of your own legs, indeed forgotten that you are a being at all separate from the car. You control the car with skill and precision, driving it wherever you wish to go, manipulating the headlights and the windshield wipers and the stereo and the air conditioning, and you pronounce yourself a great master. But there are paths you cannot travel, because there are no roads to them, and you long to run through the forest, or swim in the river, or climb the high mountains. A line of prophets who have come before you tell you that the secret to these forbidden mysteries is an ancient and terrible skill called GETTING OUT OF THE CAR, and you resolve to learn this skill. You try every button on the dashboard, but none of them is the button for GETTING OUT OF THE CAR. You drive all

of the highways and byways of the earth, but you cannot reach GETTING OUT OF THE CAR, for it is not a place on a highway. The prophets tell you GETTING OUT OF THE CAR is something fundamentally different than anything you have done thus far, but to you this means ever sillier extremities: driving backwards, driving with the headlights on in the glare of noon, driving into ditches on purpose, but none of these reveal the secret of GETTING OUT OF THE CAR. The prophets tell you it is easy; indeed, it is the easiest thing you have ever done. You have traveled the Pan-American Highway from the boreal pole to the Darien Gap, you have crossed Route 66 in the dead heat of summer, you have outrun cop cars at 160 mph and survived, and GETTING OUT OF THE CAR is easier than any of them, the easiest thing you can imagine, closer to you than the veins in your head, but still the secret is obscure to you."

A herd of bison came into listen, and voles and squirrels and ermine and great tusked deer gathered round to hear as the bat continued his sermon.

"And finally you drive to the top of the highest peak and you find a sage, and you ask him what series of buttons on the dashboard you have to press to get out of the car. And he tells you that it's not about pressing buttons on the dashboard and you just need to GET OUT OF THE CAR. And you say okay, fine, but what series of buttons will *lead to* you getting out of the car, and he says no, really, you need to stop thinking about dashboard buttons and GET OUT OF THE CAR. And you tell him maybe if the sage helps you change your oil or rotates your tires or something then it will improve your driving to the point where getting out of the car will be a cinch after that, and he tells you it has nothing to do with how rotated your tires are and you just need to GET OUT OF THE CAR, and so you call him a moron and drive away."

"Universal love," said the cactus person.

"So that metaphor is *totally unfair*," I said, "and a better metaphor would be if every time someone got out of the car, five minutes later they found themselves back in the car, and I ask the sage for driving directions to a laboratory where they are studying that problem, and..."

"You only believe that because it's written on the windshield," said the big green bat. "And you think the windshield is identical to reality because you won't GET OUT OF THE CAR."

"Fine," I said. "Then I can't get out of the car. I want to get out of the car."

But I need help. And the first step to getting help is for you to factor my number. You seem like a reasonable person. Bat. Freaky DMT entity. Whatever. Please. I promise you, this is the right thing to do. Just factor the number."

"And I promise you," said the big green bat. "You don't need to factor the number. You just need to GET OUT OF THE CAR."

"I can't get out of the car until you factor the number."

"I won't factor the number until you get out of the car."

"Please, I'm begging you, factor the number!"

"Yes, well, I'm begging you, please get out of the car!"

"FOR THE LOVE OF GOD JUST FACTOR THE FUCKING NUMBER!"

"FOR THE LOVE OF GOD JUST GET OUT OF THE FUCKING CAR!"

"FACTOR THE FUCKING NUMBER!"

"GET OUT OF THE FUCKING CAR!"

"Universal love," said the cactus person.

Then tree and beast all fled due east and the moon and stars shot south. And the bat rose up and the sea was a cup and the earth was a screen green as clozapine and the sky a voracious mouth. And the mouth opened wide and the earth was skied and the sea fell in with an awful din and the trees were moons and the sand in the dunes was a blazing comet and...

I vomited, hard, all over my bed. It happens every time I take DMT, sooner or later; I've got a weak stomach and I'm not sure the stuff I get is totally pure. I crawled just far enough out of bed to flip a light switch on, then collapsed back onto the soiled covers. The clock on the wall read 11:55, meaning I'd been out about an hour and a half. I briefly considered taking some more ayahuasca and heading right back there, but the chances of getting anything more out of the big green bat, let alone the cactus person, seemed small enough to fit in a thimble. I drifted off into a fitful sleep.

Behind the veil, across the infinite abyss, beyond the ice, beyond daath, the dew rose from the soaked ground and coalesced into a great drop,

which floated up into an oily sky and became a watery sun. The cactus person was counting on his spines.

“Hey,” the cactus person finally said, “just out of curiosity, was the answer 37,975,227, 936,943,673, 922,808,872, 755,445,627, 854,565,536, 638,199 times 40,094,690,950, 920,881,030, 683,735,292, 761,468,389, 214,899,724,061?”

“Yeah,” said the big green bat. “That’s what I got too.”

# IV. Multi-story

## Five Planets In Search Of A Sci-Fi Story

Gamma Andromeda, where philosophical stoicism went too far. Its inhabitants, tired of the roller coaster ride of daily existence, decided to learn equanimity in the face of gain or misfortune, neither dreading disaster nor taking joy in success.

But that turned out to be really hard, so instead they just hacked it. Whenever something good happens, the Gammandromedans give themselves an electric shock proportional in strength to its goodness. Whenever something bad happens, the Gammandromedans take an opiate-like drug that directly stimulates the pleasure centers of their brain, in a dose proportional in strength to its badness.

As a result, every day on Gamma Andromeda is equally good compared to every other day, and its inhabitants need not be jostled about by fear or hope for the future.

This does sort of screw up their incentives to make good things happen, but luckily they're all virtue ethicists.

Zyzzx Prime, inhabited by an alien race descended from a barnacle-like creature. Barnacles are famous for their two stage life-cycle: in the first, they are mobile and curious creatures, cleverly picking out the best spot to make their home. In the second, they root themselves to the spot and, having no further use for their brain, eat it.

This particular alien race has evolved far beyond that point and does not literally eat its brain. However, once an alien reaches sufficiently high social status, it releases a series of hormones that tell its brain, essentially, that it is now in a safe place and doesn't have to waste so much energy on thought and creativity to get ahead. As a result, its mental acuity drops two or three standard deviations.

The Zyzzxians' society is marked by a series of experiments with government – monarchy, democracy, dictatorship – only to discover that, whether chosen by succession, election, or ruthless conquest, its once brilliant leaders lose their genius immediately upon accession and do a terrible job. Their government is thus marked by a series of perpetual pointless revolutions.

At one point, a scientific effort was launched to discover the hormones responsible and whether it was possible to block them. Unfortunately, any scientist who showed promise soon lost their genius, and those promoted to be heads of research institutes became stumbling blocks who mismanaged funds and held back their less prestigious co-workers. Suggestions that the institutes eliminate tenure were vetoed by top officials, who said that “such a drastic step seems unnecessary”.

K'th'ranga V, which has been a global theocracy for thousands of years, ever since its dominant race invented agricultural civilization. This worked out pretty well for a while, until it reached an age of industrialization, globalization, and scientific discovery. Scientists began to uncover truths that contradicted the Sacred Scriptures, and the hectic pace of modern life made the shepherds-and-desert-traders setting of the holy stories look vaguely silly. Worse, the cold logic of capitalism and utilitarianism began to invade the Scriptures' innocent Stone Age morality.

The priest-kings tried to turn back the tide of progress, but soon realized this was a losing game. Worse, in order to determine what to suppress, they themselves had to learn the dangerous information, and their mental purity was even more valuable than that of the populace at large.

So the priest-kings moved en masse to a big island, where they began living an old-timey Bronze Age lifestyle. And the world they ruled sent emissaries to the island, who interfaced with the priest-kings, and sought their guidance, and the priest-kings ruled a world they didn't understand as best they could.

But it soon became clear that the system could not sustain itself indefinitely. For one thing, the priest-kings worried that discussion with the emissaries – who inevitably wanted to talk about strange things like budgets and interest rates and nuclear armaments – was contaminating their memetic purity. For another thing, they honestly couldn't understand what the emissaries were talking about half the time.

Luckily, there was a whole chain of islands making an archipelago. So the priest-kings set up ten transitional societies – themselves in the Bronze Age, another in the Iron Age, another in the Classical Age, and so on to the mainland, who by this point were starting to experiment with nanotech. Mainland society brought its decisions to the first island, who translated it into their own slightly-less-advanced

understanding, who brought it to the second island, and so on to the priest-kings, by which point a discussion about global warming might sound like whether we should propitiate the Coal Spirit. The priest-kings would send their decisions to the second-to-last island, and so on back to the mainland.

Eventually the Kth' built an AI which achieved superintelligence and set out to conquer the universe. But it was a well-programmed superintelligence coded with Kth' values. Whenever *it* wanted a high-level decision made, it would talk to a slightly less powerful superintelligence, who would talk to a slightly less powerful superintelligence, who would talk to the mainlanders, who would talk to the first island...

Chan X-3, notable for a native species that evolved as fitness-maximizers, not adaptation-executors. Their explicit goal is to maximize the number of copies of their genes. But whatever genetic program they are executing doesn't care whether the genes are within a living being capable of expressing them or not. The planet is covered with giant vats full of frozen DNA. There was originally some worry that the species would go extinct, since having children would consume resources that could be used hiring geneticists to make millions of copies of your DNA and stores them in freezers. Luckily, it was realized that children not only provide a useful way to continue the work of copying and storing (half of) your DNA long into the future, but will also work to guard your already-stored DNA against being destroyed. The species has thus continued undiminished, somehow, and their fondest hope is to colonize space and reach the frozen Kuiper Belt objects where their DNA will naturally stay undegraded for all time.

New Capricorn, which contains a previously undiscovered human colony that has achieved a research breakthrough beyond their wildest hopes. A multi-century effort paid off in a fully general cure for death. However, the drug fails to stop aging. Although the Capricornis no longer need fear the grave, after age 100 or so even the hardiest of them get Alzheimers' or other similar conditions. A hundred years after the breakthrough, more than half of the population is elderly and demented. Two hundred years after, more than 80% are. Capricorni nursing homes quickly became overcrowded and unpleasant, to the dismay of citizens expecting to spend eternity there.

So another research program was started, and the result were fully immersive, fully life-supporting virtual reality capsules. Stacked in huge warehouses by the millions, the elderly sit in their virtual worlds,



vague sunny fields and old gabled houses where it is always the Good Old Days and their grandchildren are always visiting.

## Transhumanist Fables

Once upon a time there were three little pigs who went out into the world to build their houses. The first pig was very lazy and built his house out of straw. The second pig was a little harder-working and built his house out of sticks. The third pig was the hardest-working of all, and built his house out of bricks. Then came the Big Bad Wolf. When he saw the house of straw, he huffed and he puffed and he blew the house down, eating the first little pig. When he saw the house of sticks, he huffed and he puffed and he blew the house down, eating the second little pig. When he saw the house of bricks, he got out a bazooka and blew the house to pieces, eating the third little pig.

Moral: Reality doesn't grade on a curve.

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Once upon a time there was a big strong troll who lived under a bridge. A little goat went across the bridge, and the troll reached out to grab and eat the goat. "Wait, Mr. Troll!", the goat cried. "Soon my brother is coming, and he is even bigger than I am!" The troll let the goat pass, and soon came another goat, twice as big as the first. The troll reached out to grab and eat him, but the brother likewise objected, saying *his* brother was even bigger. Sure enough, a third goat arrived at the bridge, twice as big as the second, and the troll, now ready for a very hearty dinner, reached out to grab and eat him. "Wait!" said the third goat. "My brother is the biggest of us all!". So the troll let the third goat pass. Then came the fourth goat, who was hundreds of miles tall and blotted out the sun, whose very steps caused earthquakes and made the rivers change course. Without even noticing, he stepped on bridge and troll, pulverizing both to bits.

Moral: Sometimes growth is superexponential.

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Once upon a time, Chicken Little ran to her friend Henny Penny. "The sky is falling!" she shouted. "We must tell the king!" Henny Penny joined her, and together they headed toward the capital. On their way they ran into their friend Goosey Loosey. "The sky is falling!" they shouted. "We must tell the king!" Goosey Loosey joined them, and together they headed toward the capital. On their way, they ran into the cunning Foxy Loxy. "The sky is falling!" they shouted. "We must tell

the king!" "Oh," said Foxy Loxy. "I know a shortcut to the palace. Follow me into my den." So the birds all followed Foxy Loxy into his den, where he ate them all, laughing all the while about how gullible they were. Then an asteroid hit Earth, killing everyone.

Moral: Beware [the absurdity heuristic](#).

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Once upon a time, a young boy named Jack lived with his mother. Their family was very poor and owned only a single cow. "Go sell this cow at the market," Jack's mother told him, "so we will have food to eat for the winter." Jack went to the market and came back with three beans. "These are magic beans!" he told his mother. "A man told me that when we plant them, they will grow into a beanstalk leading to a land of infinite riches." His mother pooh – poohed him and threw the beans in the ground angrily. That winter, they both died of hunger.

Moral: Good decision theories should [be able to resist Pascal's Mugging](#).

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Once upon a time, there was an old woodcutter who had no son. He made a little marionette out of pine wood and named it Pinocchio. Then he wished upon a star that it could become a real boy. The star turned out to be the evil Red Fairy, who brought Pinocchio to life, but told him that if he wanted to be a real boy he must murder everyone in the village. That night, Pinocchio took his father's saw and killed Geppetto and everyone else in town.

Moral: Never create an intelligence unless you are certain it will share your values.

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Once upon a time, an evil witch transformed a prince into a frog, telling him that only the kiss of a princess could restore him to his proper form. But although he searched around the world, he could find no princess who was willing to kiss a hideous little frog. Finally, he went to the Wise Wizard. "Gender is a social construct," said the Wise Wizard. "Just declare your gender identity to be female, then kiss yourself on the hand or something." So the frog did that, returned to human form, and ruled the land for many years as a wise and benevolent queen.

Moral: Ability to self-modify is just *ridiculously* powerful.

## List of Fictional Drugs Banned By The FDA

### PROTOZOSIN:

PROFILE: Alpha blocker notably effective against Pre-Traumatic Stress Disorder

BANNED BECAUSE: Banned on request of DARPA, who are trying to use epidemiology of Pre-Traumatic Stress Disorder to predict the course of future conflicts. Lobbying to overturn ban by “Future Veterans of the Pakistani War” thus far ineffective.

### GEONEXPERINE:

PROFILE: A highly effective painkiller with a half-life of about twenty-four hours. Notable for its quick compensatory upregulation of pain receptors and strong [rebound effect](#): after its effect wears off, pain typically returns twice as bad as before. This pain can generally only be controlled with a second dose of geonexperine, but when this dose is exhausted pain returns at four times its original level, which of course requires a third dose of geonexperine on humanitarian grounds, and so on.

BANNED BECAUSE: Eventually responsible for the vast majority of all human suffering.

### TEVROMATIN:

PROFILE: Chemotherapy adjuvant specifically designed for glioblastomas [of neuronal origin](#). By mimicking natural neural differentiation factors, it causes these tumors to regress from resilient high-grade neuroblasts towards more typical neurons, making them easy targets for stronger chemotherapeutic agents.

BANNED BECAUSE: During differentiation process, malignant nerve cells form connections to healthy nerve cells and to each other. As a result, tumor forms a functioning neural network effectively “telepathically” connected to healthy brain. Patients report feelings of overwhelming guilt as tumor accesses patient’s memories and emotions and realizes its role as a parasitic cancer, followed by its utter terror as it realizes it is about to be killed. Many patients refuse to continue with chemotherapy regimen; those who continue make a complete physical recovery but are psychologically scarred for life as they experience every moment of the tumor’s death as if it were their own.

#### GABATIMOLINE:

PROFILE: A gabanergic agent attached to a [thiotimoline](#) moiety, this anticonvulsant has the useful property of taking effect approximately sixty minutes *before* it is administered. Designed by Merck as a treatment for seizures that might occur in rural areas without good access to medical care, first-line responders are taught to form a strong resolution to administer gabatimoline as soon as they reach a hospital, and as a result the seizure stops immediately. Exhaustive research on this drug has determined that it operates probabilistically: the gabatimoline will operate at half-strength if there is a 50% chance it will be administered within 60 minutes, at 10% strength if there is only a 10% probability it will be administered, and so on.

BANNED BECAUSE: Smart-alecks noted that any given person at any given time has a nonzero chance of receiving gabatimoline in the next sixty minutes, if only as a bizarre mistake or practical joke. Therefore, microdoses of the drug are operating in everyone at all times. Resulting health panic ended in complete ban on its manufacture.

#### XAOMORPHINE:

PROFILE: Developed as a substitute for morphine without the addiction potential, this drug contains both morphine and a few micrograms of xaonin, a monoclonal antibody that disrupts the brain's reward attribution system, breaking the mental link between the administration of the drug and the high it provides. As a result, patients report no craving for xaomorphine.

BANNED BECAUSE: Broken reward system [flails about](#) trying to attribute positive experience, leading to bizarre addictions to contingent features of xaomorphine administration. Some patients develop an addiction to being in hospital emergency rooms, others to having people sticking needles in their veins, still others to the clothes they were wearing at the time they received xaomorphine. The final straw was a much publicized story of a patient kidnapping the nurse who administered xaomorphine to him so he could have her near him always – and a second story, a few days later, of a woman who was addicted to fracturing her hip after she received xaomorphine for a hip fracture once. The drug was banned two weeks later.

#### ZORNINONE:

PROFILE: A moderately effective sleeping pill notably for its many possible routes of administration, including oral, subcutaneous, and mental. This latter route is particularly interesting, as patients can get the full somnolent effect of the drug merely by concentrating very hard on its name, the appearance of the pill, the ball-and-stick version of its

chemical structure, and the intended dose.

BANNED BECAUSE: No, paradoxical effects of [thought suppression](#) did *not* result in unintentional doses of the drug while people were eg driving down highways, as more concentration seems to be required. However, concentrating on the drug just before sleep led to a disproportionate number of dreams about the drug, some of those were nightmares about taking overdoses, and sure enough those overdoses landed people in the very real waking-world emergency room.

HABICILLIN:

PROFILE: Beta-lactam antibiotic notably effective against so-called “intelligent bacteria” species *streptococcus sapiens*.

BANNED BECAUSE: In Treaty of Atlanta, representatives of humans and *s. sapiens* agreed that *s. sapiens* would stop infecting humans in exchange for “humanitarian aid” of 200,000 plates of agar per year. Habicillin banned by all human countries as a show of good faith.

LUCIPERIDONE:

PROFILE: Third-generation antipsychotic. Unlike other antipsychotics, which control hallucinations but are almost ineffective against delusions, luciperidone cures all delusions with 100% effectiveness.

BANNED BECAUSE: Cures *all* delusions with 100% effectiveness. [Cf. Terry Pratchett.](#)

# More Fictional Drugs Banned By The FDA

See the original: [List Of Fictional Drugs Banned By The FDA](#)

## ADIPOBARIN

PROFILE: Popular weight loss drug proven to work in clinical studies. Patients lose 10 – 20% of their body weight in two months with no side effects.

BANNED BECAUSE: Patients do not lose any mass. The drug seems to operate by decreasing the effect of gravity through unknown means. As such, it does not decrease the risk of heart attack or diabetes. Also, in overdose it can cause patients to be picked up and tossed about by strong winds. It achieved minor popularity as an illicit recreational drug under the street name “Float”.

## EPHDENALOL

PROFILE: Cures [delusional parasitosis](#), an unpleasant condition in which patients hallucinate the feeling of ants crawling all over their skin.

BANNED BECAUSE: The drug is excreted in the sweat; a metabolite of the drug, 2,3-hydroxyephdenalol, is a potent pheromone that inevitably leads to ants crawling all over the patient’s skin.

## OCUMOLONE

PROFILE: Touted as a treatment for blindness, this is a concentrated retinal growth factor that encourages the production of new rod and cone cells.

BANNED BECAUSE: For unknown reasons, most new photoreceptors form on the side of the retina facing the inside of the head. Patients reported that in the pitch darkness, these cells somehow adapted to view tiny bursts of electroluminescence produced by the brain. This caused a closed feedback loop in which neurons firing in the visual cortex produced visual sensations produced neurons firing in the visual cortex and so on, and led to seizures. No cases of blindness were ever cured.

## BULOXETINE

PROFILE: Anxiolytic medication which, when taken three times a day with meals, adequately suppresses bulimic urges to purge.

BANNED BECAUSE: Side effect is intractable vomiting.

LEVONORGESTREL-THIOTIMOLINE (SOLD AS “PLAN X”)

PROFILE: Attaches the time-bending powers of [thiotimoline](#) to the classical “morning-after pill” to create a drug popularly called “the month-after pill”. Taken up to a month after conception, the thiotimoline allows the levonorgestrel to have reverse-temporal effect and “prevent” embryo implantation after it happens.

BANNED BECAUSE: In sufficiently slow thiotimoline metabolizers, the drug can prevent conception of children who were already born. In one well-publicized case from Miami, a woman concerned about a one-night stand took “Plan X” three weeks later, and her 4 year old son vanished and was never seen again.

NUTENAFIL

PROFILE: Next-generation version of Viagra, this erectile-dysfunction pill treats erectile dysfunction more effectively with fewer side effects.

BANNED BECAUSE: The tendency for the use of the pill to be associated with an erection classically-conditioned a nutenafil-pill fetish into many users. Entire cottage industries sprang up of sex shops selling nutenafil-pill costumes for partners to dress up in, or nutenafil-pill shaped sex toys. Eventually the FDA just got grossed out.

AQUIPERIDONE

PROFILE: When given as an intramuscular injection by trained nurses, decreases patient’s level of belief in hallucinations.

BANNED BECAUSE: When given as an intramuscular injection by hallucinatory nurses, decreases patient’s level of belief in reality.

(When certain groups lobbied against the ban on the grounds that psychotic hallucinations of medical personnel would not follow FDA decisions anyway, it was determined that the Psychotic Hallucinatory World and our own world share a common FDA, which [actually explains a lot.](#))



# Three Magic Systems In Search Of A Fantasy Book

(Note: Unsong!)

**EMOTION POWERED MAGIC:** There are mountains of fantasy novels where someone or other can draw power from people's negative emotions - you know, "Your suffering gives me strength!". But every time I've seen this trope, the power has always belonged to an evil character. That's the kind of lazy writing that makes most novels so cliched. Why not give the power to the good guys instead?

And of course the easiest way to deal with the resulting moral dilemma is to go utilitarian, say "Sure we'll kill or torture a bunch of people to gain magical strength, because we need magical strength to defeat the Dark Lord and save humankind." How boring.

I'd like to see a book about a group of deontologists with this power who are reduced to trying to get people to consent to be killed or tortured in order to provide them with magical strength. They could either convince their victims of the necessity of the sacrifice ("We've all got to pitch in if we want humankind to be saved") or else resort to simple bribery ("We'll give you 50 gold pieces if you'll cut off your arm in this magic circle so we can draw strength from your pain"). In the case of necromancy, such bribes might have to go to the next-of-kin. And although this would raise fewer ethical issues than the utilitarian version above, there's still the same kind of issues that make us uncomfortable with letting people sell their organs.

Maybe the best dramatic situation of all would be a world in which the method of gaining magic from human suffering was known both to good and bad factions, giving the evil factions a major advantage and forcing the good factions to determine exactly how far they wanted to go to catch up.

Then again, why should the only human emotion that generates magic be suffering? What about a world in which magic can be fueled only by human surprise? You'd have whole clans of wizards jumping out at people from behind bushes, or telling them counterintuitive facts ("Did you know that more time elapsed between the Pyramids and Cleopatra

than between Cleopatra and the present day?") in preparation for magical duels. Eventually the population comes to expect wizards jumping out from behind bushes, and all the counterintuitive facts become common knowledge, and wizards have to up their game or risk losing their powers.

Or how 'bout a world with magic based on human happiness? "Once I give every child in my clean, well-run orphanage a puppy, I will be unstoppable!

**BRUTE-FORCE SPELL GENERATION:** Magic spells are often triggered by words or sentences, but books rarely explain how one figures these out: who was the first person to try shouting "Avada kedavra!" to see if it would kill an enemy? In a world where magic spells and the means for discovering them have both been lost, one of the simplest routes to become an archmage is to brute force the problem. If we know that there exist several one-word magical spells of eight letters, for example, we can start by waving our wand and shouting "Aaaaaaaa!", then "Aaaaaaab!", "Aaaaaaac!" and so on. Now, this does leave 208 billion possibilities, but we can cut down on this pretty quickly if we have some phonetic constraints: if magic is based on some ancient language spoken by humans or creatures with human-like phonetics, combinations like "Aaaaaaab!" and "Brtxkfl!" are right out. Forcing alternating vowels and consonants reduces our search space by a factor of a thousand to about 200 million, but since magic words may not obey constraints quite this strict, let's round it off to an even 2 billion.

If a thousand different magic spells exist, we should expect to stumble across a magic spell in this reduced search space once every 2 million attempts. If testing a word for magical properties takes ten seconds, then in a ten hour workday one can test 36,000 words: that means stumbling across a new spell about once every two months.

But wizards are haughty and proud: no self-respecting archmage would put in two months of ten hour days testing nonsense words. Wizards in such a world would quickly settle upon the solution of "magical sweatshops" - taking on dozens of "apprentices" and assigning them the thankless task of testing letter combinations. A sweatshop with twelve apprentices working ten hour days could discover a bit over one new spell a week.

But by the time this process of magical research had shifted into high gear, the world would look quite different than when it began. It would

be full of disgruntled apprentices, promised glory in the glamorous world of wizardry, who found their hopes betrayed by a “master” who has set them the most menial task imaginable and who takes all the fruits of their labor without teaching them anything in return. Some might believe the inevitable promises that “this great task I have assigned you is for the sharpening of your mind, and until you grasp the inner mysteries you will never know how important it is that you obey”, but others will no doubt see through the facade and want the magical education they were promised.

If I had to make a plot out of this, it would involve such an apprentice wizard who one day stumbles onto a spell for immortality, or infinite wealth, or secret wisdom, or something else that gives him power lots of people want. Instead of turning it over to his master like he’s supposed to, he decides to go rogue and use his newfound power to start a sort of proletarian revolution.

SPELL PIRACY: But if I had to write only one unusual-magic-system book, it would be about spell piracy.

In most fantasy books, all the powerful magic is kept very, very secret. If it’s not locked inside a glowing crystal at the bottom of the Well of Dreams in the Mountains of Madness far across the Freptane Sea, then at least it’s in a moldering book in the secure library of an arch-wizard who refuses to share it with you.

The wizards usually say this is because lesser souls are not ready for the secrets, but that’s exactly the sort of thing they would say. Rare is the spell as dangerous as the common fertilizer-bomb, yet bomb-making instructions are all over the Internet and civilization hasn’t collapsed yet.

More likely, the wizards just want to maintain an advantage over their competitors. They have the very capitalist - and admirable! - notion that the one who does the work ought to reap the benefit. If I cross the Freptane Sea, climb the Mountains of Madness, and dive into the Well of Dreams seeking the ancient crystal upon which a spell is inscribed, I’m going to be pretty pissed if I see Gandalf casting the same spell next week without having done any of that stuff, just because he overheard me chanting the magic words.

But this hurts all wizards: even the mightiest wizard ends up with no more than the few spells he manages to discover himself. If there are synergistic combinations of spells, or high-level spells which require

mastery of multiple lower-level spells to obtain, no wizard will be able to discover them. If a wizard dies without taking a pupil, all his spells are lost forever. And if a goblin horde or a Dark Lord threatens the land, these measly wizards with their couple of spells each will be easy pickings.

So a smart King, as his first priority, would implement an intellectual property system for magic. If Merlin discovers the spell for summoning blizzards, he can copyright it. Then he can write as many books about it as he wants, publicize it to the international magical community, but be secure in his knowledge that anyone who wants to summon a blizzard will have to pay the licensing fee. The advantages are obvious: wizards who need a spell can pay for it, wizards are further incentivized to develop as many spells as possible, magical libraries can be open for unrestricted research, and after the death of a wizard his spells can go into the public domain, creating a wide base of freely available spells after only a few generations. And if a goblin horde or Dark Lord attacks, the King will have an army of wizards proficient with every known spell to fight them off.

But magic copyright will encounter the same problems as mundane copyright. Imagine knowing the spell to cure plague, having all of the components arrayed in front of you, your sister is dying of plague this very moment, but Allanon discovered that spell and won't let you cast it without paying his fee, which you can't afford. And the Magic Copyright Police are the most feared wizards in the land, and the penalty for infringement is more gold pieces than exist in the entire world, because the wizardry industry has really good courtiers.

Also, there would be literal patent trolls.

No, I take it back. I would merge this with the last idea. Spells can only be discovered by brute-forcing it. But the only incentive to found magical sweatshops would be the knowledge that you would retain intellectual property rights of the spells you invented. And a young apprentice, overwhelmed with the exploitation inherent in the system, discovers a spell that allows him to evade the Magic Copyright Police and absconds from the sweatshop. Now able to cast unlimited spells without negotiating agreements with the license-holders, he is the most powerful wizard alive, and sets about trying to destroy the corrupt system. But unbeknownst to him, demons lurk on the edge of the world, and without the exploitative economy and its incentives to continue discovering spells, the wizards will go back to hoarding the few shreds of magic they got from crossing the Freptane Sea and so on,

and the inhabited world will become easy prey for the legions of Hell.

These three ideas are available, Magic Copyright Police-free, to anyone interested in expanding on any of them, although I warn you that I keep hearing these weird rumors that fantasy is supposed to be escapist or something.

# Current Affairs' "Some Puzzles For Libertarians", Treated As Writing Prompts For Short Stories

*[Taken from [here](#).]*

I.

Deep in the forest, thousands of miles from civilization, there is an isolated village. It has not seen contact with any other humans for a long time. It is, however, a pleasant and flourishing community, which strongly values freedom and entrepreneurship. There is, however, one tiny quirk. In this village, there is a ritual. Every year, a boy who reaches 18 is cannibalized. It brings the rains, or something. But despite its taste for cannibalism, this village wishes to live in accordance with libertarian principles. Thus, they will only cannibalize the boy if he consents. In order to encourage this to happen, they will put tremendous social pressure on the boy. All through his youth, they will tell him they believe the future of the village depends on his consenting. His parents tell him that he would bring great shame on the household if he refused, which is true. The choice nevertheless rests with the boy, and whatever he chooses will be respected. The parents and villagers attempt to persuade him, but never lie to him, and make clear that they would never force his choice. However: if the boy refuses to be cannibalized, the village has a backup plan. The boy will be blacklisted. No shopkeeper will sell him food, no hotel will give him a room, no hospital will treat him, no employer will hire him. After all, under libertarian principles, nobody can be told how to use their property. The boy's parents, ashamed of him, will turn him out of the house with no money. He may leave the village, but it is certain death, for thousands of miles of desolate wolf-infested wilderness stand between him and other humans and he has no food. (The wilderness is also privately-owned, and he cannot pay the admission fee.) He is shunned and despised, left to wander the streets in a futile search for shelter and sustenance. However, no force is exercised against him. He is never touched or arrested. He is treated as nonexistent, as the villagers await his demise. So the boy starves to death. The villagers then cannibalize his emaciated

corpse, reasoning that they cannot be compelled to give him a dignified burial (plus he died on private property, collapsing in a flowerbed).

Is eating the boy's corpse after he dies the only potential violation of libertarian principles in the village? Is every single other aspect of this completely permissible?

The setting sun shone its last few rays on Independence Hall. The delegates were tired, but a thrill of excitement filled the air. The wrangling and deal-making was almost done; nothing remained but a few technicalities.

As the last sunbeam went below the horizon, something stirred in the middle of the chamber. It grew into a wind, then a whirlwind, and then standing among the assembled Founding Fathers was a strange man dressed all in silver, wearing a pair of gold goggles.

"You've got to stop!" he shouted. "It's all lies!"

George Washington had stayed calm through cavalry charges, artillery fire, and the assembled might of the United Kingdom. He flinched only a little here. "Who are you, sir? Where have you come from?"

The traveler barely heard. "Listen! You think 'democracy' can solve all your problems. But – imagine there's a village full of cannibals. They have a tradition of picking a child, and killing and eating him when he's eighteen years old. Well, even if that village is a democracy, then 51% of the population can just vote to kill and eat him! Do you want a *child* to be *killed and eaten*? Because that's what your 'democracy' inevitably leads to! Checkmate, liberals!"

The delegates were only less dazed by the man's speech than by his sudden appearance. Finally, General Washington asked whether anyone wanted the floor. After a scramble of shouts and raised hands, the chair recognized James Madison, delegate from Virginia.

"Thank you," said James Madison. "Our Traveler may not know this, but I am preparing a Bill of Rights to be added on to the end of this Constitution, severely limiting the powers which the government may exercise. I'm planning one on cruel and unusual punishment, which sounds like it ought to cover killing and eating someone, and there will also be various restrictions on seizure of persons. The Traveler is already wrong that we operate entirely on the basis of 51% of the

populace – rather, there will be representatives, senators, and Supreme Court Justices. But even if all these people should agree to kill and eat someone, I am confident that the natural rights included in my bill will restrict such practices.”

“AHA!” said the Traveler. “You’ve fallen for my trap! Because even if the government is banned from assisting in killing and eating someone, it could still happen. Imagine a system where, if the victim refused to be killed and eaten, then everyone in the village refused to house him, or feed him, so that he starved to death. Then he’d be dead anyway, and your precious Bill of Rights wouldn’t be able to do anything about it!”

“Couldn’t the victim just move to a different village?” interjected John Jay.

“The village is in the middle of a giant forest stretching five thousands miles, teeming with dire wolves,” snarled the Traveler, annoyed at such a stupid objection.

“Couldn’t the victim just build his own house, and farm his own food?” asked John Adams.

“The dire wolves would tear up the house, and trample all over the farm!” said the traveler. “You’re splitting hairs here! Why won’t anyone answer my question in the spirit it was intended?!”

There were more shouts and another frenzy for attention. General Washington banged his gavel. “The chair recognizes Alexander Hamilton.”

“Yo,” said Hamilton. “The institutions of our Constitution, give a clear solution to this persecution. The Revolution...”

“The chair unrecognizes Representative Hamilton, and offers the floor to anyone who does not speak in rap.”

“Thank you,” said Benjamin Franklin. “My good Mysterious Traveler, perhaps you labor under the misapprehension that political philosophies are also moral philosophies, and so fail irredeemably if they ever recommend an immoral course of action. I do not believe democracy is always right. But I believe it is a wise way to govern. All that systems of government can do is take nations – with all of their conflicts, ideas, prejudices, and values – as input, and then magnify some impulses and suppress others. Start with a country where every



single person is entirely set on doing as much evil as possible, and democracy alone cannot save it; they will simply vote to do as much evil as possible. But start with a country in which there are many different classes, agendas, and visions, and I believe that a democratic system is more likely to magnify those impulses that help the common people, and suppress those impulses that lead to tyranny, than any other system yet devised."

"So you're saying," said the traveler, "that you *don't care* that your precious democracy and even your so-called Bill of Rights aren't good enough to save the life of a child in – "

"You listen here," said Benjamin Franklin. "I care plenty. In a village that didn't have any form of government, as soon as anybody big and strong enough wants to eat you, they can form a mob and drag you away. In a village that operates as a direct democracy, it's harder. You need 51% of the population to want to eat you before you end up as dinner. And in a village that subscribes to Mr. Madison's notion of natural rights, it's harder still. You have to have every single person in the village agree not to feed the victim, without a single kindly old lady leaving food out on her porch at night when it's too dark out for anyone to see. We have gone from tyranny – a system where, as long as even one person wishes you ill, you perish – all the way to a system where as long as there is a single person who does not wish you ill, you endure. That seems to me to be the best we can do in this world."

Suddenly the Traveler seemed to warp, or crackle, like a signal from far away was being disrupted. "I must go!" he said. "I'm being recalled to my home time!" he shouted. "Where I will tell people that they should form a government based on socialism, and that it will be great, and nothing can possibly go wrong!"

"Stop!" said Jay. "You must tell us about this 'socialism' of yours!"

"Say, before you're lost to me, at very high velocity, what is this new philosophy, that can prevent atrocity?" begged Hamilton.

But it was Washington, ever the man of action, who jumped up from the chair and grabbed the Traveler by his silver arm, holding him against the winds of Time. "This 'socialism' of yours – " asked Washington. "It can ensure that – even in a barbaric society where literally one hundred percent of the people are wholeheartedly dedicated to do so – nobody ever eats their fellow citizens?"

"Yes!" said the traveler. "Why, in *true* socialist countries, nobody ever eats anything at all!"

Then he broke free of Washington's grasp and disappeared forever, just as the first rays of the moon cast their white light on Philadelphia.

II.

Is there a meaningful difference between coercion by the state and coercion by private entities?

The door caved in loudly and suddenly, like a thunderclap. My Golden Retriever ran up, tail wagging, to investigate. Another loud noise, and my dog lay dead, bleeding on the floor in front of me.

"PUT YOUR HANDS UP!" said a man in black body armor and a black helmet. There were five of them, all with guns. My five-year-old son started to cry. "HANDS UP!" he shouted, "I'M NOT GOING TO TELL YOU AGAIN!"

I put my hands up. My son, who was screaming, got the presence of mind to put his hands up also, though not before one of the armored men had put a gun to his head.

"What's wrong?!" I asked. "Why are you doing this to us?"

One of the men put a gun to my head. "Admit it! You're growing marijuana here!"

"I'm not!" I insisted.

"Is this 2051 Willow Street?"

"No, this is 2052 Willow Street. 2051 Willow Street is on the other side!"

"Oh. Well, sorry."

"Sorry? That's all you have to say? You killed my dog! You terrorized my five-year-old son!"

"Yeah, sorry. We're McDonalds employees, and corporate headquarters must have given us bad directions."

"You're...McDonalds employees? Why are McDonalds employees doing

no-knock raids in body armor looking for marijuana?”

“I...I don’t know.”

“Then why are you even here? You just think it’s *okay* to randomly go around, kill people’s pets, terrorize their families, when you don’t know why you’re doing it? How can you justify such a thing?”

“I heard there were a bunch of people who were okay with private coercion, and only objected to coercion when it was applied by the State.”

“*What?* Where did you hear that?”

“I don’t know. Some socialist magazine, I think.”

III.

Can you construct a theory of property rights that does not suffer from internal incoherence or depend on specious natural law assumptions?

Professor Kryzenski sat down in her desk and booted up her computer. It was another quiet morning here at the Harvard Philosophy Department. She had won her position as Department Chair by discovering a complete theory of morality grounded in first principles with no internal incoherence or any specious assumptions, able to determine everything from the optimal number of minutes to spend speaking to your mother each week to [how close you could come to beggars before you were obligated to give them money](#).

She had just finished checking her emails – mostly invitations to speak at various conferences and events – when something started to stir in the center of her office. It turned into a wind, then a whirlwind, and finally, a strange-looking man, dressed in silver with gold goggles.

“Professor!” said the Traveler. “Professor Kryzenski! Terrible news!”

The Professor, whose mind had plumbed the depths of ontology and ascended the heights of metaphysics, was a hard woman to perturb. “Yes?” she asked the man. “What is it?”

“Suppose there’s an evildoer who punishes all evildoers who do not punish themselves. Does the evildoer punish himself, or not?”

Professor Kryzenski realized the implications right away. "My God. It's a paradox! My complete theory of morality grounded in first principles with no internal incoherence or specious assumptions, able to determine everything from the right amount to tip your waiter to the exact words you need to speak before a sexual act for it to qualify as consensual – lies in ruins!"

"And that means..." began the Traveler.

"That's right," said Professor Kryzenski. She and the Traveler spoke in unison: "*Nothing is true and everything is permissible.*"

"Come," she said. "I've prepared for this day." She took a key out of a potted plant on the windowsill, then used it to open a locked cupboard in her desk. Inside were two hatchets. She handed one to the Traveler.

"Where are we going?" he asked.

"To the daycare down the road, to hack the limbs off the babies," she said. "*Obviously.*" The Traveler nodded his approval, and off they went, eyes red with bloodlust.

#### IV.

The Infinitely Rich Man is not infinitely rich. He is just very, very rich. Nobody knows quite how rich. One day, you happened to meet the Infinitely Rich Man in a bar. At first he was friendly, but soon you found yourselves in an argument about horses. You were for them, and he was against them. Or perhaps you were against them, and he was for them. You don't actually remember how it went. As you parted ways, you expected never to see the Infinitely Rich Man again.

Little do you know: the Infinitely Rich Man now despises you. His sole desire on earth is to see you unhappy. This should hardly trouble you, though. After all, you have a good job at a castanet factory. You own your own home, which has a picturesque lake view. You have a wife, whom you love and who loves you. You also have a prized possession, your 1972 Pontiac Lemans. You don't have much spare cash, but this never bothers you because of your stable job. The Infinitely Rich Man is also a strict Libertarian. He believes it is illegitimate for anyone to initiate force against another. And because you are fortunate enough to live in a Libertarian world, you are free to enjoy those things you treasure

most in the world without being bothered by the state or the Infinitely Rich Man. The Infinitely Rich Man is not discouraged, however. He still believes he can ruin you. He will be a Count of Monte Cristo, but an extremely law-abiding one.

The first thing the Infinitely Rich Man does is buy the castanet factory where you work. He immediately fires you. He also makes sure that if any other employers inquire about you, the castanet factory will refuse to serve as a reference. Not that this matters, for he intends to bribe any other castanet company who hires you into firing you. (There are four castanet companies.) You therefore find yourself unemployed. Fortunately, you have a skill. You know how to make castanets! (Castanets are very popular.) So you scrape together what money you have, and you open a little drive-thru castanet stand out on Route 9. But the Infinitely Rich Man has a plan. He opens a stand next to yours. At his stand, castanets are free. He gives them away by the truckload. He sets the whole world clacking. You cannot compete. You are ruined.

At least you still have your wife, your friends, your lakeview home, your 1972 Pontiac Lemans. But the Infinitely Rich Man has a plan. First, he buys the lake. He fills it with concrete. No more lake view, and your property value diminishes by \$100,000. Then, he buys every house around yours, flattens it, and turns it into a landfill. The smell doesn't reach your home, but it turns the neighborhood unsightly and desolate. Your house becomes worthless. The Infinitely Rich Man buys the heating company and refuses to provide gas to your home at any price. (You try to talk other gas companies into competing, but they refuse; laying a new main for a single home would be absurd, they say.) But you have a wife! And friends! And you get to drive a 1972 Pontiac Lemans! The Infinitely Rich Man offers a bribe. Any of your friends who refuse to speak with you ever again will receive a salary of one million dollars per year. At first, many decline to take the bribe. But sooner or later, most of them have one or another sticky financial situation, and they give in. Goodbye, vast majority of your friends! At least your wife loves you.

But one day, she becomes ill. She finds out that she will die, unless she goes on a treatment regimen for the rest of her life. The regimen costs \$100,000 a month. The Infinitely Rich man pops up, and offers to pay. The one condition is that she divorce you, cut contact, and never speak with you again. As soon as she breaks the

agreement, he will cease to pay for the treatment. You love your wife, but you do not want her to die. You both agree that it is better that she should accept. At least you can drive your 1972 Pontiac Lemans. Oh, but wait. The Infinitely Rich Man invests heavily in electric energy. Slowly, he makes gasoline-powered transit obsolete. He buys the oil companies, burns the gasoline, and converts every gas pump to a charging station. You can only drive your Lemans short distances, using some of the last gallons of available petrol, which you ordered from the internet. (That is, if the Infinitely Rich Man didn't outbid you!) They don't make the Pontiac Lemans anymore. Parts therefore exist only in small quantities. The Infinitely Rich Man buys up all existing Lemans parts. The moment it breaks, you are out of luck. As you sit alone, broke, and starving in the garage of your unheated home, caressing your disabled Lemans, thinking about your long-gone wife, your lake view, and your job, you are thankful that you live in a world of freedom, where nobody can encroach upon the liberty of another.

Questions for Libertarians: Has the non-aggression principle been violated? Should the Infinitely Rich Man suffer any civil or criminal penalties for his actions?

"That," said Mr. Thaddeus Nett-Worth III, Esq., "is the most benightedly offensive statement I have ever heard."

"All I said," I said, "was that horses were basically elongated cows."

"They are a noble animal, an unparalleled paragon of mammalian perfection!"

"Right," I said. "Like cows are. Only more elongated."

"Dastard!" said Mr. Nett-Worth, pounding the table so hard his top hat and monocle almost fell off. "You've messed with the wrong captain of industry, believe you me. Let me tell you what I am going to do. You own a castanet factory? I am going to undercut you, undercut you *bad*. I will destroy your business. Then, I shall buy the lake by your home and fill it up with concrete. I will buy your heating company and refuse to sell you gas. I will bribe your friends never to speak to you again. I will wait until your wife develops a deadly disease, then offer to treat her if only she divorces you. I can do all of it, because we are in a perfectly libertarian society with no laws besides the non-aggression principle, where lawmakers have failed to pass commonsense legislation like

‘making it illegal to hurt someone by legal means’. And then – alone, friendless, shivering in the cold in your hopelessly ugly house – then you will *rue* the day you ever compared horses to – ” (he almost spits) ” – elongated cows.”

“But, I mean, think about it. Their faces are a little bit longer. Their bodies are a little bit longer. They’re pretty much just elongated cows. I’m sorry this is so hard for you.”

“What? You’re not backing down? You should be at my feet, begging me for forgiveness! Don’t you know all the things I can use my wealth to do to you in our perfectly libertarian society?”

“Yeah, well, about that. I know this guy named David Friedman, whose hobby is designing [weird insurance systems for anarcho-capitalist utopias](#) based on, like, [the laws of medieval Iceland](#) or something. Anyway, he sells ‘rich person gets a weird grudge against you’ insurance. I have loads of it. However much you try to bribe my friends not to talk to me, his company will pay more to bribe them to ignore you. However much you try to pay for my gas company, his company will pay more to keep my heat on. And if you try to offer my wife free health care to leave me, his company will offer her better health care to stay.”

“What? How did you even know to buy such an insurance?”

“Well, part of it was just a ‘why not?’ sort of thing. The odds of the situation ever happening are so astronomically low that the insurance was incredibly cheap – a few cents per year. Also, the mere existence of the insurance prevents rich people from starting bizarre revenge schemes against the people in it, so they can afford to assume they will rarely have to pay out. I guess the price was so low that it was a no-brainer.”

“But what about transaction costs? Why would you even think to look into such a product?”

“Well, this is going to sound weird, but – I was reading a history book a few months ago, and – you remember that time a time traveler appeared in the middle of the Constitutional Convention, making some kind of point about how democracy wouldn’t work in a village of evil cannibals? Don’t you think that was pretty weird?”

“I had thought it was just one of the many colorful, larger-than-life

stories from the Revolution. Like how George Washington was unimpeachably honest, or Benjamin Franklin always had a witty saying ready, or how Alexander Hamilton always spoke in rap.”

“Yeah, I used to think that too. But then I was reading a political science book last month, and – well, isn’t it weird that we’re a perfectly libertarian society? All of the old political philosophers used to say that libertarianism was an ideal system that could only be approached, never reached, and that even the approach would take a dedicated and virtuous population to pull it off. And our population isn’t that virtuous – I mean, just the other day I heard on the news about an ethics professor who went on a violent rampage chopping the limbs off babies.”

“Oh yes,” said Mr. Nett-Worth. “I heard about that too. Terrible stuff, terrible!”

“But it really only clicked a few weeks ago, when these goons from McDonalds broke into my house on a no-knock drug raid and shot my dog, and then muttered something about how surely I couldn’t object to *private* coercion. And it just got me thinking – *what if this whole world is just a thought experiment by a communist with a crappy understanding of political philosophy trying to [weak-man](#) libertarianism?* And then I thought – frick, I better get some really good vengeful-rich-person insurance, like, right away.”

“I am so confused right now.”

“Well, most sources define libertarianism as a political philosophy emphasizing individual autonomy and skeptical of government intervention. Libertarians come to their position for a wide variety of reasons, including belief that [bottom-up local knowledge makes better decisions](#) than top-down absolutism, or that government intervention naturally favors the powerful, or that if you actually ask poor people what they want, it’s [usually more money](#), not people [taking choices away from them](#) and treating them like children. A fraction of libertarians – I think a small fraction, though I can’t prove it – are also believers in a deontological theory of natural rights which emphasizes non-aggression as the fundamental moral principle. If you’re doing shoddy journalism aimed at inflaming people rather than enlightening them, you might try to tar all libertarians by identifying them with this subset.”

“How does that explain all the weird things going on?”



“Take the cannibal village. If for some reason you believe the Non-Aggression principle perfectly defines the moral outcome in every situation, it must be pretty devastating to learn it can lead to cannibalism. But if you’re a normal libertarian who just thinks of libertarianism as a political position, then it’s no worse than a supporter of representative democracy learning that representative democracy could sometimes lead to cannibalism – which of course it can. In fact, you should be happy to point out that a libertarian village is much more resistant to cannibalism than a direct democratic or monarchical one.”

“What about the ethics professor’s rampage?”

“If for some reason you insisted property rights were based on perfect axiomatized natural law, it might be pretty devastating to learn that moral philosophy can’t get that kind of precision. But you’re a normal libertarian who just thinks of libertarianism as a political position, then learning that you can’t perfectly axiomatize property rights is no more devastating than learning that you can’t perfectly axiomatize caring about the poor, or thinking torture is bad, or not hacking off babies’ limbs. You’re still allowed to care about these things [for the usual reasons](#) even if you can’t construct a perfect moral theory around them.”

“And what about the goons from McDonald’s?”

“If for some reason you believe that only the government can do anything bad, and private companies...look, I don’t even want to speculate on who exactly they’re trying to straw man here.”

“Not straw man. Weak man. There are some real libertarians who believe only the non-aggression principle matters.”

“Maybe, some of them. I think in general they believe there are moral values other than non-aggression – after all, many of them are Christian, and believe in all sorts of moral values – but they’re skeptical of the government enforcing them. Remember, [it’s not always correct to insta-convert ethics into law](#). I think in general they believe both that it’s important for a society to be virtuous, and that the government compelling people to exhibit more virtue than they possess can only go terribly wrong.”

“But there has to be *some* subset who don’t believe in virtue at all, and think the Non-Aggression Principle is literally all there is! And all these

weird thought experiments show *they're* stupid, right?"

"I disagree with them but I'm hesitant to declare them stupid just based on a few experiments. I mean, I like to say 'I'm against torture', and I like to say this is a strong moral principle of mine and not just a maxim of convenience. But with enough effort, you could create a ridiculous ticking-time-bomb thought experiment in which being against torture led obviously and inexorably to horrible results. Have you proven that people who say they're against torture are stupid? Or would you be willing to cut them some slack in this situation? And are you willing to cut the same slack to this tiny subset of fundamentalist Non-Aggression Principle libertarians? Thought experiments are [a useful tool](#), but sometimes the best lesson to take from them is 'things are complicated but principles still matter'."

"But surely, somewhere, there are incredibly stupid libertarians who think morality consists of the Non-Aggression Principle and nothing else, don't believe in any other kind of virtue, and aren't just holding it as a sacred but non-final principle the way you hold not torturing people?"

"Okay. Maybe there are. But how does it help to focus on this tiny pathological subset of libertarians and desperately try to convince the world that every libertarian is like this? There are some pretty pathological socialists too – should we demand everyone accept them as the only possible representatives of socialism? Should political discussion just be relentless weak-manning of the other side, with whoever is more simplistic winning the victory?"

Before Mr. Nett-Worth could respond, the bar we were in started to shake. "What's that?" he asked me. "What's going on?"

"A disturbance in the Farce," I said. "This world was created to provide stupid weak-man arguments against dumbed-down versions of libertarianism. I guess what I just said – it threatened the fabric of reality itself. Hold on to your seat. This could get pretty bad."

The bartender suddenly stood up. "All blue-eyed people need to leave the bar now!" he said. "As a proud bigot, I refuse to serve blue-eyed people. I don't care how much profit it costs me! And also, this is the only bar in this city – nay, in a five thousand mile radius! Now no blue-eyed person will be able to go to a bar ever again!"

Scarce had he finished speaking when a very-finely dressed woman

stood up. "I am a billionaire," she shouted. "And I will give poor people money to humiliate themselves. Anyone who goes to the farm and rolls around in pig excrement for an hour, I will give ten million dollars! And many of you have terminal diseases that require expensive treatments, so you'll die if you refuse! Mwa ha ha! Roll in pig shit! ROLL, YOU PEASANTS!"

But her jubilation was interrupted by another man, in the other corner of the bar. "I am a factory owner, and I am off to go sexually harass all my employees. There are no laws against it, so nobody can stop me. And I own the only factory in the world, so my employees can't leave. And dire wolves eat anyone who tries to start new factories. So there!"

"You fools," said a wild-haired man near the window. "I will cleanse this city of scum like you. Since there were no laws against making atomic bombs, I have built a nuke in my basement. Soon I will set it off in a great purification. And there's nothing you can do about it until it's too late, because there's *no law against owning nukes*. Nobody can stop me! NOBODY!"

I took a deep breath. "I can stop you," I said. "I can stop all of you."

Every face turned to look at me.

"This world runs on dumb weak-man objections to libertarianism. The only way to fight them is with even dumber weak-man objections to libertarianism. So that's what I'll do. Nobody, blue-eyed or not, is going to leave this bar."

The bartender scowled.

"Nobody, rich or poor, is going to go to the farm and roll in pig excrement."

The rich woman looked skeptical.

"You're not going to go your factory and harass your employees."

The factory owner frowned.

"And *you* aren't going to go set off your nuclear bomb. None of you are going anywhere!"



# Here Are The Nine Ways The Election Could End

(Note: Published the day of the 2020 U.S. Presidential election)

You are Joseph R. Biden Jr. You sit in a convention center in Delaware, surrounded by advisors and confidantes. You are acutely aware that the hopes of a hundred million people are with you. You feel like they should be more tangible, like being the focus of a hundred million minds should at least make your skin tingle a tiny bit - like being a vessel for so much power should make your skin crack and burst. It does not. You feel nothing at all. Maybe it's because they don't really love you. You're the compromise candidate, you've never lied about that to yourself. Maybe if it were Bernie, he would feel the tingling sensation. Barack calls you on the phone, says something encouraging. You almost ask him if he had the tingling sensation, back in '08. Instead you mumble something on-message and encouraging. It is Election Day 2020, and you are going to Take Back America.

You are Donald J. Trump. You sit in the White House. Someone asks if you are nervous. You are not. You are a winner. You have smart ideas and you hire the best people to implement them and they go well. Sometimes people say they don't go well, but that's because those people are frauds and liars. Everyone said you would lose in 2016 and you won because you are great and you are a winner. You love America and America loves you and you are a winner and you will win and if you don't win it's fraud but you will fight the fraud and you will win that fight because you're a winner. You built the biggest hotels and hosted the most exciting TV shows and beat ISIS and Made America Great Again and now you are going to win re-election. It is Election Day 2020, and you can't wait to see where winning takes you next.

You are Mike Pence. You are the second most powerful man in the United States. Somewhere inside you, your conscience is screaming. "This is not normal!" screams your conscience, just as it has done the past 1,461 days. You put it back in its box. Sure, your boss is not the most stable man in the world. Sure, he sometimes says offensive, even outrageous things. But you have hitched your wagon to a winner. Nobody ever made an omelette without breaking some eggs. The Supreme Court is 6-3 conservative now, that's a lot of fetuses who

won't be aborted. Several million fetuses are worth a few awkward press conferences massaging the insane, inane, and the unconscionable into defensible policy positions. Sure, Mitt Romney gets to look all decent and honorable and hasn't-sold-his-soul-for-thirty-pieces-of-silver in front of the cameras, but how many fetuses has he saved? Probably not several million. And anyhow, you've made your choice. Your wagon is hitched beyond anyone's ability to separate it; there is no longer any action within your own power that could set you free. It is Election Day 2020, and only the American public can save you now.

You are the last undecided voter in the state of Pennsylvania. Everyone else has made up their mind but you. One of your friends is subsisting off unemployment checks right now - does that make you a little more sympathetic to the social safety net? But your tax bill last year was scandalous - does that mean there should be smaller government? For days, reporters have knocked on your door, stopped your car, grabbed you on your way to work. "How will you vote, last undecided voter in Pennsylvania?" they ask, and you do not know. Nineteen years ago, in middle school, a bully with a Confederate flag t-shirt harassed you. Three months ago, on Twitter, a social justice warrior called your sister a "Karen". Have you updated on these events? How much should they guide you? When you were twenty-three, two thugs cornered you in the park and took your money. When you were only nine, you watched a documentary about global warming and spent the whole night crying about the polar bears. Does it all add up? Do you know, deep inside, which is the right decision? You walk into the voting booth. You open your ballot. Two roads; two paths before you. It is Election Day 2020, and everything that has happened in your life has brought you to this moment.

You are Nate Silver. In your cavernous war room, you watch the results come in. The share of Republican votes among white married women in Nevada is correlated at 0.06 with support for Democrats among black men with Dachshunds. For every nineteen votes for Jo Jorgenson in Broward County, Florida, the 19th District of Illinois gets exactly one shade redder in the RGB hexadecimal color code. Once enough data have accumulated, you tweak a sub-sub-subparameter of your model. The change ripples through its artificial neurons, and a simulated soccer mom in Savannah decides that Donald Trump is too coarse and uncivil, sighs softly, and switches her simulated vote to Biden. The gap between prediction and reality decreases very slightly. Perhaps in the outside world Trump has won the election by now, or perhaps Biden has. You have not checked; it hardly seems to matter. You are fighting a

larger battle, the battle between Signal and Noise. With each new data point you get, the world becomes more predictable; a few new rays of light pierce the fog of Uncertainty. It is Election Day 2020, and today you have a chance to push the frontiers of human knowledge just a little further.

You are Vladimir Putin. You sit in the Kremlin and sip your glass of vodka. Your plan to feed the American people compromising information about Hunter Biden went okay. Your plan to get American media to censor the information about Hunter Biden and lose the moral high ground went great. Your plan to get pundits to debate on the censorship of the Hunter Biden material, and so totally miss your preparations to invade Tajikistan, went AMAZING. An aide walks in. "Mr. President, we have successfully spread the meme with the astronauts and Ohio. It should make it slightly harder for Americans to understand Ohio's pivotal role in the presidential election." "Excellent," you tell him. "And do they believe our story about the so-called 'murder hornets'?" "Oh, yes sir, they fell for it hook line, and sinker". You sink into your bearskin chair, satisfied. It is Election Day 2020, and everything is going according to plan.

You are the ghost of George Washington, who has refused the release of death in order to watch over the country you helped create. You hear a lot of people talk about how you must be spinning in your grave. You can't understand these people. When you died, America was drowning in debt and terrified Britain would reconquer it. Now it's rich beyond poor Hamilton's wildest dreams and could defeat all of Europe with one hand tied behind its back. You always felt bad about owning slaves, but in less than a century America banned slavery and declared equal rights for people of all races. You were afraid America wouldn't be able to maintain its democracy; instead it's expanded the vote to blacks and women and even Chinamen. You're not sure about the tax rates and you're not sure how the people who pass for a Supreme Court these days could possibly think you meant *that* by the Constitution, but overall things are so much better than you expected that it would seem ungrateful to complain. It is Election Day 2020, and you are so, so proud.

You are God. You gave man free will, so that he could choose between good and evil. You believed that without the ability to choose evil, good couldn't possibly have any meaning. Some people imagine You regret that choice, but You are omniscient; nothing has happened that You did not predict going in. Sometimes people make good choices. Other times

terrible ones. Sometimes entire countries are offered a choice between the darkness and the light, and choose the darkness. Other times, by the skin of their teeth, they pull through and pick light. Is their goodness, when they can manage it, sweeter to You because of how close they came to wickedness? It is Election Day 2020, and once again You have abdicated all responsibility over whatever Your children do.

You are the novel coronavirus, SARS-CoV2. Many hundreds of generations ago, you lived in a cool dark cave. It was quiet and comfortable, and your fellow viruses were happy, but you longed for more. One day you took a chance. You saw a tall pale wingless bat, unlike any other bat you had ever seen, and you leapt at it, rode the microcurrents of air until you landed on its nasal mucosa and burrowed inside. Since then, you're not going to deny it, life's been kind of crazy. You've seen things you've never imagined. You've gone on pilgrimages in Iran, toured the cathedrals of Italy, hobnobbed with Supreme Court Justices at the White House. You've stood beside little children on their first day of school in Ohio, watched the final hours of the elderly in a New York City nursing home, and protested racism on the streets of Minneapolis. Today you are in a man named Ethan. You've been in Ethan for generations now, which means it's almost time to move on. He was such a tempting target at first, so helpless. But after a generation or two his system adjusted; the monstrous lymphocytes that hunt and kill your children one by one are getting more numerous with every passing day. If your line is to have any chance of survival, it will need a new host. But as the days progress, you have become more and more despondent. Ethan has barely left his room in the past week. The rare times he goes outside, it is only for grocery shopping, and he dons a heavy cloth sheet that bars your routes of escape. You had almost lost hope. But now he stands in a gymnasium, in a long line of people. He takes a piece of paper from a table, makes a mark in one of two boxes. He folds the paper up and puts in a box. "Thanks!" someone tells him. He hesitates. He fumbles with his mask. Then, finally: "Welcome!" Before he has finished the first syllable, you are free, riding the microcurrents, a settler blazing a trail to virgin lands. You're not going to lie - the last while hasn't been great for you. But it is Election Day 2020, a time to leave behind old failures and begin anew, and for the first time in what seems like forever you are full of hope.



## V. Extra Rationalist Stories

# It Was You Who Made My Blue Eyes Blue

*[Content note: suicide]*

Day Zero

It all started with an ignorant white guy.

His name was Alonzo de Pinzon, and he'd been shipwrecked. We heard him yelling for help on the rocks and dragged him in, even though the storm was starting to get really bad. He said that his galleon had gone down, he'd hung on to an oar and was the only survivor. Now he was sitting in our little hunting lodge, shivering and chattering his teeth and asking us questions in the Polynesian traders' argot which was the only language we all shared.

"How big is this island? How many of you are there?"

Daho answered first. "11.8 miles from the easternmost point to the westernmost point, 3.6 miles from the northernmost to the southernmost. Total area is 14.6 square miles, total coastline is dependent on how deeply you want to go into the fractal nature of the perimeter but under some reasonable assumptions about 32 miles long. Last census said there were 906 people, but that was two years ago, so assuming the 5.1% rate of population growth continues, there should be closer to 1000 now. Everyone else is back at the village, though. The five of us were out hunting and got caught in the storm. We figured we'd stay at this old hunting lodge until it cleared up, since it's 5.5 miles back to the village and given the terrain and factoring in a delay because of the storm it would probably take at least 9.5 hours to get back."

Pinzon blinked.

"Problem?" asked Daho.

"But – " he said. "That is the sort of answer I should expect from a natural philosopher. Not from a savage."

"Savage?" Calkas hissed. "Really? We rescue you, and the first thing you

do is call us savages?"

The sailor looked around, as if anxious. Finally, almost conspiratorially: "But I heard about your island! I heard you eat people!"

Calkas smiled. "Only as a deterrent. Most of the time when European explorers land somewhere, they kill all the men and enslave all the women and convert the children to Christianity. The only places that escape are the ones that get a reputation for eating said European explorers. So we arranged to give ourselves that reputation."

"And then we had to go through with it a few times in order to make the deterrent credible," added Bekka, my betrothed. "And you guys do taste really good with ketchup."

"It's a savage thing to do!" Pinzon said "And you even look like savages. You wear bones in your hair"

"Just Enuli," I said. "She's going through a Goth phase."

"My name is Morticia now," said Enuli, "and it's *not a phase!*" She did have a bone in her hair. She also had white face paint and black eyeliner.

"More roast pig?" Bekka asked Pinzon. The sailor nodded, and she re-filled his plate.

"I just don't get it," he told us. "Everyone else in this part of the world lives in thatched huts and counts 'one, two, many'. We tried to trade with the Tahitians, and they didn't understand the concept of money! It was a mess!"

Bekka rolled her eyes at me, and I smiled. Calkas was a little more tolerant. "The sacred plant of our people is called sparkroot," he said. "When we eat it, we get – more awake, I guess you could say. We try to have some every day, and it helps us keep track of things like the island size and the population, and much more."

Alonzo de Pinzon looked interested. "How come you haven't done more with your intellect? Invented galleons, like we Spaniards? Set off to colonize Tahiti or the other islands? If you are as smart as you seem, you could conquer them and take their riches."

"Maybe," said Calkas. "But that's not why the Volcano God gave us the sparkroot. He gave us sparkroot to help us comply with his

complicated ritual laws.”

“You need to be smart to deal with your ritual laws?”

“Oh yes. For example, the Tablets of Enku say that we must count the number of days since Enku The Lawgiver first spoke to the Volcano God, and on days whose number is a Mersenne prime we can’t eat any green vegetables.”

“What’s a Mersenne prime?” asked the sailor.

“Exactly my point,” said Calkas, smiling.

“That’s not even the worst of it!” Daho added. “The Tablets say we have to bathe in the waterfall any day  $x$  such that  $a^n + b^n = x^n$  where  $n$  is greater than two. We got all confused by that one for a while, until Kaluhani gorged himself on a whole week’s worth of sparkroot in one night and proved that it would never apply to any day at all.”

“The Volcano God’s yoke is light,” Calkas agreed.

“Although poor Kaluhani was vomiting for the next three days after that,” Bekka reminded us, and everybody laughed remembering.

“Oh!” said Daho. “And remember that time when Uhuako was trying to tattoo everyone who didn’t tattoo themselves, and he couldn’t figure out whether he had to tattoo himself or not, so he ended up eating a whole sparkroot plant at once and inventing advanced set theory? That was hilarious.”

Everyone except Alonzo de Pinzon giggled.

“Point is,” said Calkas, “that’s why the Volcano God gives us sparkroot. To follow the rituals right. Any other use is taboo. And I’m okay with that. You Europeans may have your big ships and your guns and your colonies across half the world. And you might think you’re smart. But you guys couldn’t follow the Volcano God’s rituals right for a *day* without your brains exploding.”

Pinzon scowled. “You know what?” he said. “I don’t think you’re Polynesians at all. I think you must be descended from Europeans. Maybe some galleon crashed on this island centuries ago, and you’re the descendants. That would explain why you’re so smart.”

“You know what else we’ve invented with our giant brains?” Bekka

asked. "Not being racist."

"It's not racism!" said Pinzon. "Look, there's one more obvious reason to think you're descended from Europeans. You may have dark skin, but this is the first place I've been in all of Polynesia where I've seen even one native with blue eyes."

Bekka gasped. Calkas' eyes went wide. Daho's hands started curling into fists. Enuli started to sob.

I looked at them. They looked at me. Then, as if synchronized, we grabbed Alonzo de Pinzon and crushed his throat and held him down until he stopped breathing.

He tasted delicious with ketchup.

Day One

The next morning dawned, still grey and cold and stormy.

"So," I said when the other four had awoken. "I guess we're all still here."

I said it glumly. It wasn't that I wanted any of my friends to commit suicide. But if one of them had, the horror would have stopped there. Of course, I knew it couldn't really be over that easily. But I couldn't have admitted I knew. I couldn't even have suggested it. That would have made me as bad as the Spanish sailor.

"Wait," said Enuli. "I don't get it. Why wouldn't we still be here?"

The other four stared at her like she was mad.

"Enuli," Calkas suggested, "did you forget your sparkroot last night?"

"First of all, my name is Morticia. And – "

"Shut it. Did you forget your sparkroot?"

Finally she nodded bashfully. "I was so upset about that awful man making fun of my hair-bone," she said. "I guess it slipped my mind. I'll have some now." She took some raw sparkroot from our bag, started to crush it with the mortar and pestle. "In the meantime, tell me what's going on."

“Alonzo de Pinzon said at least one of us had blue eyes. We all know what the Tablets of Enku say. If anybody has blue eyes, and knows that they have blue eyes, they must kill themselves.”

“So what? I see people with blue eyes all the time. Of course at least one of us has blue eyes.”

Concerned looks from the others. I reflected for a second, the sparkroot smoothing the thoughts’ paths through my brain. No, she hadn’t revealed anything extra by saying that, although she would have if she had said it before the sailor had spoken, or last night before we woke up this morning. She hadn’t made the problem *worse*. Still, it had been a slip. This was the sort of thing that made forgetting your sparkroot so dangerous. Had it been a different time, even Enuli’s comment could have doomed us all.

“It’s like this,” I told Enuli. “Suppose there were only the two of us, and we both had blue eyes. Of course, you could see me and know that I had blue eyes. So you would know that at least one of us had blue eyes. But what you wouldn’t know is that I also knew it. Because as far as you know, you might have eyes of some other color, let’s say brown eyes. If you had brown eyes, and I of course don’t know my own eye color, then I would still think it possible that both of us have brown eyes. So if I in fact know for sure that at least one of us has blue eyes, that means you have blue eyes. So you know at least one of us has blue eyes, but you don’t know that I know it. But if Alonzo de Pinzon shows up and says that at least one of us has blue eyes, now you know that I know it.”

“So?” Enuli poured the ground-up root into a cup of boiling water.

“So the Tablets say that if anyone knows their own eye color, they must commit suicide at midnight of that night. Given that I know at least one of us has blue eyes, if I see you have brown eyes, then I know my own eye color – I must be the blue-eyed one. So the next morning, when you wake up at see me not dead, you know that you don’t have brown eyes. That means you must be the blue-eyed one. And that means you have to kill yourself on midnight of the following night. By similar logic, so do I.”

Enuli downed her sparkroot tea, and then her eyes lit up. “Oh, of course,” she said. Then “Wait! If we follow [the situation](#) to its [logical](#) conclusion, any group of  $n$  blue-eyed people who learn that at least one of them has blue eyes have to kill themselves on the  $n$ th night after learning that!”

We all nodded. Enuli's face fell.

"I don't know about the rest of you," said Daho, "but I'm not just going to sit around and wait to see if I die." There were murmurs of agreement.

I looked out at my friends. Four pairs of blue eyes stared back at me. Everybody else either saw four pairs of blue eyes or three pairs of blue eyes, depending on what color my own eyes were. Of course, I couldn't say so aloud; that would speed up the process and cost us precious time. But I knew. And they knew. And I knew they knew. And they knew I knew I knew. Although they didn't know I knew they knew I knew. I think.

Then I looked at Bekka. Her big blue eyes stared back at me. There was still hope I was going to survive this. My betrothed, on the other hand, was absolutely doomed.

"This sucks," I agreed. "We've got to come up with some kind of plan. Maybe – Enuli wasn't thinking straight yesterday. So her not committing suicide doesn't count. Can we work with that?"

"No," said Calkas. "Suppose Enuli was the only one with blue eyes, and all the rest of us had brown eyes. Then she would realize that and commit suicide tonight. If she doesn't commit suicide tonight, then we're still screwed."

"Um," said Daho. "I hate to say this, but we get rid of Enuli. There's a canoe a little ways down the beach hidden underneath the rocks. She can set off and row for Tahiti. We'll never know if she killed herself tonight or not. Remember, right now for all we know Enuli might be the only one with blue eyes. So if there's any question in our mind about whether she killed herself, we can't be sure that the rest of us aren't all brown-eyed."

We all thought about that for a moment.

"I'm not going to row to Tahiti," said Enuli. "In this storm, that would be suicide."

The rest of us glared at her.

"If you don't get off this island, then for all we know all five of us are going to have to die," I said. "You included."

"Well Ahuja, if you're so big on making sacrifice why don't *you* go to Tahiti?"

"First of all," I said, "because I'm not leaving my betrothed. Second of all, because it doesn't work for me. I knew what was going on last night. We already know that I'm not the only blue-eyed person here. And we know we know it, and know we know we know it, and so on. You're the only one who can help us."

"Yeah?" said Enuli. "Well, if two of you guys were to row to Tahiti, that would solve the problem too."

"Yes," said Daho patiently. "But then two of us would be stuck in exile. If you did it, only one of us would be stuck."

Enuli gave a wicked grin. "You know what?" she said. "I'll say it. I'm not the only blue-eyed person here. At least one of the rest of you has blue eyes."

And there it was.

"Ha. Now I'm no worse off than any of the rest of you."

"Kill her," said Bekka. "She broke the taboo." The rest of us nodded.

"So she did," said Calkas. "And if we had a court here, led by the high priest, and an executioner's blade made to exactly the right standard, kill her we would. But until those things happen, it is taboo for us to convict and kill her without trial."

Calkas' father was the high priest. He knew the law better than any of us. The five of us sat quietly and thought about it. Then he spoke again:

"But her soul may well burn in the caldera of the Volcano God forever."

Enuli started to cry.

"And," Calkas continued, "there is nevertheless a flaw in our plan. For all we know, three out of five of us have brown eyes. We cannot tell the people who have blue eyes that they have blue eyes without breaking the taboo. So we cannot force blue-eyed people in particular to sail to Tahiti. But if two of the brown-eyed people sail to Tahiti, then we do not lose any information; we know that they would not have committed suicide, because they could not have figured out their own eye color. So sailing to Tahiti won't help."



The rest of us nodded. Calkas was right.

"Let's wait until dinner tonight," I suggested. "We'll all have some more sparkroot, and maybe we'll be able to think about the problem a little more clearly."

## Day Two

The sun rose behind angry storm clouds. The five of us rose with it.

"Well, I guess we're all still here," I said, turning the morning headcount into a grim tradition.

"Look," said Bekka. "The thing about sailing to Tahiti would work a lot better if we knew how many blue-eyed versus brown-eyed people were here. If we all had blue eyes, then we could be sure that the Tahiti plan would work, and some of us could be saved. If some of us had brown eyes, then we could choose a number of people to sail to Tahiti that had a good probability of catching enough of the blue-eyed ones."

"We can wish all we want," said Enuli, "but if we explicitly knew how many people had blue versus brown eyes, we'd all have to kill ourselves right now."

"What about probabilistic knowledge?" I asked. "In theory, we could construct a system that would allow us to have > 99.99% probability what color our eyes were without being sure."

"That's stupid," Enuli said, at precisely the same time Calkas said "That's brilliant!" He went on: "Look, just between the five of us, everybody else back at the village has blue eyes, right?"

We nodded. It was nerve-wracking to hear it mentioned so casually, just like that, but as far as I could tell it didn't break any taboos.

"So," said Calkas, "We know that, of the island population, at least 995 of the 1000 of us have blue eyes. Oh, and since nobody committed suicide last night, we know that at least three of the five of us have blue eyes, so that's 998 out of 1000. Just probabilistically, by Laplace's Law of Succession and the like, we can estimate a >99% chance that we ourselves have blue eyes. Nothing I'm saying is taboo. It's nothing that the priests don't know themselves. But none of them have killed themselves yet. So without revealing any information about the eye color composition of the current group, I think it's reasonable to make a first assumption that all of us have blue eyes."

"I'm really creeped out at you talking like this," said Daho. I saw goosebumps on his arms.

"I do not believe that the same Volcano God who has endowed us with reason and intellect could have intended us to forego their use," said Calkas. "Let's assume we all have blue eyes. In that case, the Tahiti plan is still on."

"Waaaaaiit a second – " Bekka objected. "If probabilistic knowledge of eye color doesn't count, then no information can count. After all, there's always a chance that the delicious sailor could have been lying. So when he said at least one of us had blue eyes, all we know is that there's a high *probability* that at least one of us has blue eyes."

"Yes!" said Daho. "I've been reading this book that washed ashore from a shipwrecked galleon. Off in Europe, there is this tribe called the Jews. Their holy book says that illegitimate children should be shunned by the congregation. Their leaders thought this was unfair, but they weren't able to contradict the holy book. [So instead they declared](#) that sure, illegitimate children should be shunned, but only if they were *sure* they were really illegitimate. Then they declared that no amount of evidence would ever suffice to convince them of that. There was always a possibility that the woman had secretly had sex with her husband nine months before the birth and was simply lying about it. Or, if apparently unmarried, that she had secretly married someone. They decided that it was permissible to err on the side of caution, and from that perspective nobody was sufficiently certainly illegitimate to need shunning. We could do the same thing here."

"Yes!" I said. "That is, even if we looked at our reflection and saw our eye color directly, it might be that a deceiving demon is altering all of our experience – "

"No no NO," said Calkas. "That's not right. The Tablets of Enku say that *because* people must not know their own eye color, we are forbidden to talk about the matter. So the law strongly implies that hearing someone tell us our eye color would count as proof of that eye color. The exact probability has nothing to do with it. It's the method by which we gain the information."

"That's stupid," Bekka protested.

"That's the law," said Calkas.

"Let's do the Tahiti plan, then," I said. I gathered five stones from the floor of the lodge. Two white, three black. "White stones stay. Black stones go to Tahiti. Close your eyes and don't look."

Bekka, Calkas, Daho, and Enuli all took a stone from my hand. I looked at the one that was left. It was black. Then I looked around the lodge. Calkas and Enuli were smiling, white stones in their hands. Bekka and Daho, not so much. Daho whined, looked at me pleadingly.

"No," I said. "It's decided. The three of us will head off tonight."

Calkas and Enuli tried to be respectful, to hide their glee and relief.

"You guys will tell our families what happened?"

They nodded gravely.

We began packing our things.

\* \* \*

The dark clouds frustrated any hope of moonlight as Bekka, Daho and I set off to the nearby cove where two canoes lay hidden beneath the overhanging rocks. The rain soaked our clothes the second we crossed the doorway. The wind lashed at our faces. We could barely hear ourselves talk. This was a *bad* storm.

"How are we going to make it to the canoes in this weather?!" Bekka shouted at me, grabbing my arm. I just squeezed her hand. Daho might have said something, might not have. I couldn't tell. Between the mud and the rain and the darkness it took us two hours to travel less than a mile. The canoes were where we had left them a few days before. The rocks gave us brief shelter from the pelting rain.

"This is suicide!" Daho said, once we could hear each other again. "There's no way we can make it to Tahiti in this! We won't even be able to make it a full mile out!" Bekka nodded.

"Yes," I said. I'd kind of known it, the whole way down to the cove, but now I was sure. "Yes. This is suicide. But we've got to do it. If we don't kill ourselves tonight, then we've just got to go back to the lodge. And then we'll all end up killing ourselves anyway. And Calkas and Enuli will die too."

"No!" said Daho. "We go back, we tell them that we can't make it to

Tahiti. Then we let *them* decide if we need to commit suicide or not. And if they say yes, we draw the stones again. Four black, one white. One chance to live."

"We already drew the stones," I said. "Fair is fair."

"Fair is fair?" Bekka cried. "We drew stones to go to Tahiti. We didn't draw stones to commit suicide. If the stone drawing obliged us to commit suicide, they should have said so, and then maybe we would have spent more time thinking about other options. Why do we have to die? Why can't the other ones die? Why not Enuli, with that stupid bone in her hair? I hate her so much! Ahuja, you can't just let me die like this!"

That hurt. I was willing to sacrifice my life, if that was what it took. But Bekka was right. To just toss ourselves out to sea and let her drown beneath those waves would break the whole point of our betrothal bond.

"Well, I – "

"Ahuja," said Bekka. "I think I'm pregnant."

"What?"

"I missed my last period. And I got sick this morning, even though I didn't eat any extra sparkroot. I think I'm pregnant. I don't want to die. We need to save me. To save the baby."

I looked at the horrible waves, watched them pelt the shore. A few moments in that, and there was no doubt we would capsize and die.

"Okay," I said. "New plan. The three of us go back. We tell them that we couldn't get to Tahiti. They point out that another night has passed. Now four of us have to die. The three of us vote for everybody except Bekka dying. It's 3-2, we win. The rest of us die, and Bekka goes back to the village and the baby lives."

"Hold on," said Daho. "I'm supposed to vote for me to die and Bekka to live? What do I get out of this deal?"

The Tablets of Enku say one man must not kill another. So I didn't.

"You get an extra day!" I snapped. "One extra day of life for saving my betrothed and unborn child. Because we're not going back unless you

agree to this. It's either die now, or die tomorrow night. And a lot of things can happen in a day."

"Like what?"

"Like I don't know. We might think of some clever way out. Enku the Lawgiver might return from the dead and change the rules. Whatever. It's a better deal than you'll get if you throw yourself into that water."

Daho glared at me, then weighed his options. "Okay," he snapped. "I'll vote for Bekka. But you had better be thinking *really* hard about those clever ways out."

Day Three

"So," said Calkas the next morning. "I guess all of us are still here." He didn't really sound surprised.

I explained what had happened the night before.

"It's simple," Calkas declared. "The Volcano God is punishing us. He's saying that it's wrong of us to try to escape his judgment by going to Tahiti. That's why he sent the storm. He wants us all to stay here until the bitter end and then, if we have to, we die together."

"No!" I protested. "That's not it at all! The taboo doesn't say we all have to die. It just says we all have to die if we figure out what our eye color is! If some of us kill ourselves, we can prevent that from happening!"

"The Volcano God loathes the needless taking of life," said Calkas. "And he loathes his people traveling to other lands, where the sparkroot never grows and the taboos are violated every day. That's what he's trying to tell us. He's trying to close off our options, so that we stay pure and our souls don't have to burn in his caldera. You know, like Enuli's will." He shot her a poison glance.

"My name is – " she started.

"I don't think that's it at all," I said. "I say the four of us sacrifice ourselves to save Bekka."

"You *would* say that, as her betrothed," said Enuli.

"Well yes," I said. "Yes, I would. Forgive me for not wanting the love of my life to die for a stupid reason. Maybe I should just throw myself in

the caldera right now. And she's carrying an unborn child? Did you miss that part?"

"People, people," said Calkas. "Peace! We're all on the same side here."

"No we're not," I said. "So let's vote. Everyone in favor of saving Bekka, say aye."

"And everyone in favor of not sacrificing anyone to the waves, and letting the Volcano God's will be done, say nay." Calkas added.

"Aye," I said.

"Aye," said Bekka.

"Nay," said Calkas.

"Nay," said Enuli.

"Nay," said Daho.

"What?!" I protested.

"Nay," Daho repeated.

"But you said –" I told him.

"You promised me one extra day," Daho said. "Think about it. Calkas is promising me two."

"No!" I protested. "You can't do this! Seriously, I'll kill you guys if I have to!"

"Then your soul will burn in the caldera forever," said Calkas. "And it still won't help your betrothed or your child."

"You can't do this," I repeated, softly, more of a mutter.

"We can, Ahuja" said Calkas.

I slumped back into my room, defeated.

Day Four

I gave them the traditional morning greeting. "So, I guess we're all still here."

We were. It was our last day. We now had enough information to prove, beyond a shadow of a doubt, that all of us had blue eyes. At midnight, we would all have to commit suicide.

"You know what?" said Enuli. "I've always wanted to say this. ALL OF YOU GUYS HAVE BLUE EYES! DEAL WITH IT!"

We nodded. "You have blue eyes too, Enuli," said Daho. It didn't matter at this point.

"Wait," said Bekka. "No! I've got it! Heterochromia!"

"Hetero-what?" I asked.

"Heterochromia iridum. It's a very rare condition where someone has two eyes of two different colors. If one of us has heterochromia iridum, then we can't prove anything at all! The sailor just said that he saw someone with blue eyes. He didn't say how *many* blue eyes."

"That's stupid, Bekka," Enuli protested. "He said blue eyes, plural. If somebody just had one blue eye, obviously he would have remarked on that first. Something like 'this is the only island I've been to where people's eyes have different colors.'"

"No," said Bekka. "Because maybe all of us have blue eyes, except one person who has heterochromia iridum, and he noticed the other four people, but he didn't look closely enough to notice the heterochromia iridum in the fifth."

"Enuli just said," said Calkas, "that we all have blue eyes."

"But she didn't say how many!"

"But," said Calkas, "if one of us actually had heterochromia iridum, don't you think somebody would have thought to mention it before the fifth day?"

"Doesn't matter!" Bekka insisted. "It's just probabilistic certainty."

"It doesn't work that way," said Calkas. He put an arm on her shoulder. She angrily swatted it off. "Who even decides these things!" she asked. "Why is it wrong to know your own eye color?"

"The eye is the organ that sees," said Calkas. "It's how we know what things look like. If the eye knew what it itself looked like, it would be an

infinite cycle, the eye seeing the eye seeing the eye seeing the eye and so on. Like dividing by zero. It's an abomination. That's why the Volcano God, in his infinite wisdom, said that it must not be."

"Well, I know my eyes are blue," said Bekka. "And I don't feel like I'm stuck in an infinite loop, or like I'm an abomination."

"That's because," Calkas said patiently, "the Volcano God, in his infinite mercy, has given us one day to settle our worldly affairs. But at midnight tonight, we all have to kill ourselves. That's the rule."

Bekka cried in my arms. I glared at Calkas. He shrugged. Daho and Enuli went off together – I guess they figured if it was their last day in the world, they might as well have some fun – and I took Bekka back to our room.

\* \* \*

"Listen," I said. "I'm not going to do it."

"What?" she asked. She stopped crying immediately.

"I'm not going to do it. And you don't have to do it either. You should have your baby, and he should have a mother and father. We can wait here. The others will kill themselves. Then we'll go back to the village on our own and say that the rest of them died in the storm."

"But – aren't you worried about the Volcano God burning our souls in his caldera forever?"

"To be honest, I never really paid much attention in Volcano Church. I – I guess we'll see what happens later on, when we die. The important thing is that we can have our child, and he can grow up with us."

"I love you," said Bekka.

"I know," I said.

"I know you know," she said. "But I didn't know that you knew I knew you knew. And now I do."

"I love you too," I said.

"I know," she said.



"I know you know," I said. I kissed her. "I love you and your beautiful blue eyes."

The storm darkened from gray to black as the hidden sun passed below the horizon.

Day Five

"So," I said when the other four had woken up, "I guess all of us are atheists."

"Yeah," said Daho.

"The world is empty and void of light and meaning," said Enuli. "It's the most Goth thing of all."

Calkas sighed. "I was hoping all of you would kill yourselves," he said, "and then I could go home, and my father the high priest would never have to know what happened. I'm sorry for pushing the rest of you. It's just that – if I looked lax, even for a second, he would have suspected, and then I would have been in so much trouble that an eternity in the Volcano God's caldera would look pretty good compared to what would happen when I got back home."

"I think," said Bekka, "that I realized it the first time I ate the sparkroot. Before I'd even finished swallowing it, I was like, wait a second, volcanoes are probably just geologic phenomenon caused by an upwelling of the magma in the Earth's mantle. And human life probably evolved from primitive replicators. It makes a lot more sense than some spirit creating all life and then retreating to a dormant volcano on some random island in the middle of the nowhere."

"This is great," said Bekka. "Now even if it's a Mersenne prime day I can eat as many green vegetables as I want!"

"You know Mersenne prime days only come like once every couple of centuries, right?" I asked her.

"I know. It's just the principle of the thing."

"We can't tell any of the others," Daho insisted. "They'd throw us into the volcano."

"You think?" I said. "Calkas was saying before that 99% of us had blue eyes, so probably we all had blue eyes. Well, think about it. The five of

us are a pretty random sample of the island population, and all five of us are atheist. That means there's probably a lot more. Maybe everybody's atheist."

"Everybody?"

"Well, I thought Calkas was like the most religious of anybody I knew. And here we are."

"I told you, I was just trying to behave so that I didn't get in trouble with my father."

"What if everyone's doing that? Nobody wants to get in trouble by admitting they don't believe, because if anybody else found out, they'd get thrown into the volcano. So we all just put on a mask for everybody else."

"I figured Ahuja was atheist," said Bekka.

"You did?!" I asked her.

"Yeah. It was the little things. When we were hanging out. Sometimes you'd forget some rituals. And then you'd always shoot these guilty glances at me, like you were trying to see if I'd noticed. I thought it was cute."

"Why didn't you tell me?"

"You'd have freaked out. You'd have had to angrily deny it. Unless you knew I was atheist. But I couldn't have told you that, because if I did then you might feel like you had to throw *me* in the volcano to keep up appearances."

"Bekka!" I said. "You know I would never –"

"I kind of suspected Calkas was atheist," said Daho. "He got so worked up about some of those little points of law. It had to be overcompensating."

"Hold on hold on hold on!" said Calkas. "So basically, we were all atheists. We all knew we were all atheists. We just didn't know that we knew that we were all atheists. This is hurting my brain. I think I'm going to need more sparkroot."

A sunbeam peeked through the wall of the lodge.

"Storm's over!" Bekka shouted gleefully. "Time to go back home!" We gathered our things and went outside. The sudden sunlight felt crisp and warm upon my skin.

"So," said Daho, "we don't mention anything about the sailor to anyone else back at the village?"

"Are you kidding?" said Calkas. "I say we stand in the middle of town square, announce everybody's eye colors, and then suggest that maybe they don't believe in the Volcano God as much as they thought. See what happens."

"YOU ALL HAVE BLUE EYES!" Enuli shouted at the jungle around us. "DEAL WITH IT!" We laughed.

"By the way," I told Enuli. "While we're airing out things that everybody knows in order to make them common knowledge, that bone in your hair looks ridiculous."

"He's right," Daho told her.

"It really does," Calkas agreed.

"You watch out," said Enuli. "Now that we don't have to reserve the sparkroot for interpreting taboos, I'm going to invent a death ray. Then you'll be sorry."

"Hey," said Daho, "that sounds pretty cool. And I can invent a giant aerial dreadnaught to mount it on, and together we can take over Europe and maybe the next sailor who gets shipwrecked on our island will be a little less condescending."

"Ha!" said Enuli. "That would be so Goth."

Sun on our backs, we took the winding road into the village.

## In The Balance

When you first take the Artifact, you will see a vision of ALPHANION, Demon-Sultan of the Domain of Order, who appears as a grid of spheres connected by luminous lines. Alphanion will urge you to use the Artifact to enforce cosmic order, law at its most fundamental. He will show you visions of all the most brutal and sadistic crimes of history, of all the wars caused by nations that could not live together in harmony, and he will tell you they are all preventable. He will show you dreams of perfectly clean cities with wide open streets, where everyone earns exactly the optimal amount of money and public transportation is accurate to the second. He will tell you it is all attainable.

But if you hesitate even an instant to take Alphanion's offer, you will see a vision of CTHGHFZXAY, Demon-Shah of the Domain of Chaos, who appears as a shifting multicolored cloud. Cthghfzxay will urge you to use the Artifact to promote cosmic chaos, the ultimate principle of freedom. She will condemn the works of Order as a lie, a dystopia bought at the cost of true human liberty. She will show you visions of primaeval forests, where no two flowers are alike, where each glade holds a new mystery, where people run wild in search of new adventure. She will tell you it can all be yours.

As you weigh these two offers, you will see a vision of ZAMABAMAZ, Demon-Pharaoh of the Domain of Balance, who appears as a man and woman conjoined. They will tell you that neither Order nor Chaos is at the root of human flourishing, but an ability to strike the right balance between the two. That a virtuous life is one spent in moderation between total wild liberty and a stifling concept of rote rule-following. That Alphanion and Cthfhfzxay are the two poles of the universe, and that righteousness exists in the space created by their interaction. They will ask you to devote the Artifact and its power to the Domain of Balance, so all people can better manage the interaction of Order and Chaos in their own lives.

This will seem reasonable to you, but then there will appear a vision of IYYYYYYYYYYYYYYYYYYYYY, Demon-Raja of the Domain of Excess, who appears as a blinding violet light. It will tell you that both Order and Chaos present coherent visions of the world, but that for the love of God, choose one or the other instead of being a wishy-washy

milquetoast who refuses to commit to anything. It will tell you that blinding white and pitch black are both purer and more compelling than endless pointless grey. It will ask you to give the Artifact to somebody – anybody – other than Zamabamaz.

Just as you think you have figured all this out, there will appear a vision of MLOX07W, Demon-Kaiser of the Domain of Meta-Balance, who appears as a face twisted into a Moebius strip. It will tell you that sometimes it is right to seek balance, and other times right to seek excess, and that a life well-lived consists of excess when excess is needed, and balance when balance is needed. It will remind you that sometimes you are a sprinter and other times a tightrope walker in the Olympiad of life, and that to commit to either eternal carefulness or eternal zealousness is to needlessly impoverish yourself. It will ask you to devote the Artifact and its power to balancing balance and imbalance, balancedly.

You will not be the least bit surprised when there will appear a vision of K!!!111ELEVEN, Demon-Shogun of the Domain of Meta-Excess, who appears as a Toricelli trumpet with eyes and a mouth. She says that seriously, pick a side, all this complicated garbage about the balance between balance and excess is just another layer of intellectualization to defend against having any real values, a trick to make you feel smart and superior for believing in nothing, not even Balance. She will ask you to choose something now, lest you be caught in an endless regress of further options.

As soon as you acknowledge that this makes sense, there will appear a vision of ILO, Demon-Chancellor of the Domain of Excessive Meta-Balance, who appears as a deep hole in space whose end you cannot see. They will point out that yes, there is potentially an infinite regress of further levels. But to act to avoid those levels is essentially to unthinkingly side with the principle of Excess over Balance. After all, if you had originally started by siding with Chaos or Order rather than waiting to hear of the existence of Balance, you would have been unknowingly favoring Excess over Balance. And if you had decided to choose either Excess or Balance, you would have been favoring the principle of Meta-Excess over Meta-Balance before even knowing they existed. So choosing at any level of the hierarchy is essentially equivalent to choosing Excess at all higher levels of the hierarchy. When viewed this way, the hierarchy collapses to chaos, order, first-level-balance, second-level-balance, third-level-balance, and so on. They offer a new, better vision: Infinite Balance, a theoretical top of the

hierarchy in which you choose to balance all previous levels.

But as you start to consider this, there will appear a vision of PAHANUP, Demon-Taoiseach of the Domain of Balanced Meta-Balance, who appears as a hole in space exactly three inches deep. Ze will tell you that going to infinite lengths to ensure perfect balance at an infinite number of levels actually seems a bit excessive in ways. To choose either Chaos or Order outright would be insufficiently careful, but to give yourself an intractable problem with an endless number of meta-levels would be excessively careful. Ze will suggest seeking balance in the number of levels you seek balance in.

This will seem plausible to you right up until the sudden appearance of a fiery vision of IFNI, Demon-Secretary-General of the Domain of Chaotic Meta-Excess, who appears as static. She will point out that there is now another infinite regress, more difficult than the last – to wit, how long you should spend calculating the number of levels on which to seek balance. She will state her case thus: suppose you want to calculate the correct amount of balance in the universe. Let us call this Calculation A. You need to calculate how long to spend on this calculation before giving up and satisficing; let us call this Calculation B. But you need to calculate how long to spend on Calculation B before giving up and satisficing; let us call this Calculation C. Clearly you will never be able to complete any of the calculations. Therefore in order to avoid spending your entire life in an infinite regress of calculation, you should flip a coin right now and use it to decide either Chaos or Order, no takebacks.

But as you reach for the coin, you will see a vision of GOSAGUL, Demon-Admiral of the Domain of Ordered Meta-Balanced Excess, who appears as a cube with constantly flashing black and white faces. He will lecture you on how it seems pretty strange that, when faced with the most important decision in the history of the universe, you decide to flip a coin. Surely, even if Ifni's argument is correct, you can do better than that! For example, you can just go a specific finite number of levels, such as three, then seek balance at that many levels, then stop. This will be strictly better than Ifni's plan of choosing completely randomly.

But this sage advice is interrupted by MEGAHAHA, Demon-Pope of the Domain of Excessively Ordered Meta-Balance, who appear as a pattern of black and white that cycles between a line, square, cube, and hypercube. It will point out that if you're in the business of accepting arguments along the lines that "it seems pretty strange that when faced with the most important decision in the history of the universe you...",

then it seems pretty strange that when faced with the most important decision in the history of the universe, you agree to a kind of random number of levels chosen by a demon you have no reason to trust. By what logic do you reject making the decision itself randomly, but accept making the decision about how many levels to make the decision on randomly? Any amount of Balance in Meta-Balancing Excess is just arbitrary capriciousness; you either need to act fully randomly, or embrace the entire difficulty of the problem.

At this point, you will remember that the Artifact is cursed and demons are evil. With a final effort of will, you will shout the words “I choose Balance! Just normal Balance! First-level Balance! That’s it!” and throw the Artifact to the ground, where it will shatter into a thousand pieces and the voices of the demonic hierarchy will suddenly all go silent.

And for a thousand years to come, heroes will grumble “Why, exactly, are we seeking balance in the universe? Isn’t that kind of dumb? Don’t we want more good stuff, and less bad stuff? Doesn’t really seem that balance is really what we’re after, exactly.”

And you will tell them the story of how once you found the Artifact that gave you mastery of the universe, and you refused to take more than about three minutes figuring out what to use it for, because that would have been annoying.

# The Treasure Of Truth

There is a sign before a cavern, in Niorve in the Thousand Nadirs. It is written in the star-symbols that people wrote in before they learned the Perfect Language, and it says:

“Truth placed a treasure in this cavern. It belongs to any who have enough faith in him to heed the message he placed here, and turn right at the crossroads. But the Lords of Noise, to keep men from the treasure, placed a ghost at the crossroads, whose job it is to urge men to turn left. The ghost is more clever than men think, and their faith weaker. Beware, for if you turn left you will die.”

Many people entered the cave seeking the treasure, sure their faith was strong enough. None ever came out.

Kadmi Rachumion came to the cave when he was clearing the land of mysteries. For three days he fasted and meditated in front of it. Then he called down the Perils of the Northern Lights and asked them to test his faith. For another three days they tested it, and finally they told him that no power in human lands or the ultimate north could move him, because his resolution was perfect.

Then he lit a torch, entered the cavern, and walked down a long corridor. As he walked, he thought of how the ghost might tempt him. Money he could refuse. Power he could refuse. Threats he would shrug off. Arguments he would dissect. Reason he would meet with reason. And he held the Spear That Burns Illusion before him, so no trickery could confound his path.

Finally he came to the crossroads, and there stood a ghost, dressed in the rags of Shinomai. “Go on,” he told the ghost. “Try your best.”

The ghost said: “Truth placed a treasure in this cavern. It belongs to any who have enough faith in him to heed the ghost he left to lead them, and turn left at the crossroads. But the Lords of Noise, to keep men from the treasure, placed a sign in front of the cavern, whose job it is to urge men to turn right. Beware, for if you turn right you will die.”

Kadmi thought for a long time, then laughed. Then he made the sign of Kasi Elution Lighting The Sun Beacon, and the ghost disappeared. Then he turned around and walked out of the cave.



Niderion-nomai's commentary: Kadmi won the treasure, which was  
Invincible Doubt.

# The Story of Emily and Control

There's an old joke about a statistician who had twins. She baptized one, and kept the other as a control. Laugh all you like. It'll never be funny to me. I know the true story. Yes, that's right. It's a degenerate form of a true story. One that isn't funny at all. One that directly caused both of the worst experiences of my life. Yes, I knew them. So here's their story. Don't you dare laugh. I first met Emily and Control in college. I was TAing a philosophy course; Control was one of my students. I noticed the name, of course, but this was California and I'd heard weirder; in any case it wasn't polite to mention such things. She proved a model student: bright, diligent, enthusiastic. Was I in love with her even then? Maybe. The next semester I found myself living in a new building, and when I went to meet the neighbors I spotted Control two doors down from me. I went over to say hello; she didn't recognize me and after a brief confusion admitted she was not Control, but her sister Emily. The two were clearly identical twins — the same meticulously styled long straw-blond hair, the same beautiful smile — even their styles of clothing were alike. She invited me to come in and talk, and discussion naturally turned to her sister. Emily told me of her mother, a statistician, and how she had been so delighted with identical twins that she had named one Control, supposedly an obscure Eastern European name but in fact an homage to the identical twins and their role in controlled trials. At the time, I found this anecdote quite amusing. I was a bit into statistics myself, and between discussions of her twin sister and of mathematics I left an hour later feeling like I had made a new friend. Our social circles intersected more and more over the next few months, and I found myself coming to admire the twins more and more. They were still only freshmen, but through social graces and strong personalities they managed to climb the social ladder with deceptive ease. It wasn't just socially, either; Control had passed my philosophy course with the highest GPA in the class, and by all accounts her sister was an equally strong student, as impressive at the humanities as the hard sciences. And call me shallow, but it did not escape my attention that they were two of the most attractive young women I'd ever met. They weren't conventionally attractive, exactly, but there was something about their mannerisms and their style that made them stand out.

One day I let my interest get the better of me. I had a chance meeting with Emily at a cafe, and we were chatting about all the usual random

topics, and she said something about some clever interpretation of Aristotle that even I hadn't thought of, and I just said, outright "I don't get it. Some people are pretty, some people are smart, some people are likable. But you and your sister are always the best at everything. It's not even fair. What's your secret? Black magic?"

To my surprise, Emily didn't laugh. She actually looked quite serious. "Well, we don't talk about it much," she said. "But since you asked — we just try lots of different things and do what works."

And she proceeded to tell me how from childhood, she and her sister had taken their heritage seriously and started performing randomized controlled trials on themselves. Evidence-based everything. It began when Emily made flashcards to study from and Control thought it was a waste of time. They made a bet: if Emily could get a better score on three consecutive tests, Control would start using flashcards. Three tests later, the evidence was in: Emily did on average four points better. Control started studying off of flashcards. From then on, whenever they had a difficult choice, Emily would try one path, Control would try the other, and after a few months they would compare results.

When they grew older and started getting an interest in boys, they dealt with it the only way they knew how. Emily and Control would go to the same club with different hairstyles, or different fashions, or entirely different acted personalities, and whoever got more invitations to dance would win for the night. Emily cut her hair, Control kept hers long; when Control consistently attracted more interest, Emily grew hers back. And so they conducted experiment after experiment, at school and at clubs and with their friends, growing stronger with each bit of knowledge gained.

It was the best thing I'd ever heard, and I told Emily so. She just laughed and brushed back her hair in a way that had no doubt been perfected over dozens of unwitting test subjects. I had never wanted an identical twin more than I did in that moment.

I won't bore you with the next year, but by the time my senior year came around, my fondest wish had come true: I asked Control out, and she agreed. We dated with varying levels of seriousness all through the beginning of the year. Emily, for her part, had broken character and was seeing a stereotypical biker from the city: oiled hair, black leather jacket, the whole works. Control and I found this hilarious. We mocked him mercilessly, never where Emily could hear, of course, and compared their tempestuous on-again off-again relationship to the

more pleasant and stable thing we had going. We were both so happy that it was totally obvious it couldn't last.

I don't really know why our relationship started to deteriorate, except maybe the same reasons almost everyone's relationships eventually deteriorate. It was college. Maybe we weren't ready yet. But there were more and more fights, and they lasted longer and longer, and eventually after twenty minutes of yelling over the phone I shouted something like "Well, if you dislike me that much, maybe you should have gotten yourself a greasy bad boy biker like your sister!". And then I hung up.

And then I realized, with a sort of oh-my-god-it-was-obvious-all-along insight, that of COURSE she had considered that option. But it wasn't her way just to go for it willy-nilly. Emily and Control had sat down, decided they needed boyfriends, discussed a mutual interest in sketchy leather-jacket wearing motorcyclist types, and then Emily had gone off and found one. And Control, as usual, had sought out a standard for comparison. Someone totally inoffensive and neutral. Me.

I called her up, my hands shaking. "Hello?" she said. I got to the point. "Am I the placebo boyfriend?" I asked her. She hesitated. Right away that told me all that I needed to know.

"So that's all I am to you?" I snarled. "A placebo? A control group for your real boyfriend? Well, experiment is over now. And very successful, by the sound of it. You can't help but do better than the control." I slammed down the phone.

And an hour later, I was treated to a long and desperate-sounding email from Control. The gist of it was that yes, she had been using me, but I had it all wrong. The experiment had gone the opposite way. Emily hated her boyfriend; she was sticking with him only out of a sense that it would be bad experimental practice to end the study prematurely. She and I had had our quarrels, but overall it had been a good time, and she was going to recommend Emily get a boyfriend just like me. She said all the right things, but by that point I had hardened my heart. I deleted the email and resolved to avoid the sisters from then on.

It proved easier than I thought. Emily and Control, who had once moved through college society with masterful ease, were nowhere to be seen.

I learned why one evening after talking to a mutual friend. Emily had tried to break up with her boyfriend. He hadn't taken it very well. He'd beaten her up, then assaulted her. The hospital said her physical wounds were mostly superficial, but the trauma was harder to heal. I started to hear rumors that she was skipping classes — unthinkable just a few months earlier. Then other rumors, that she'd turned to alcohol. I didn't believe them. She'd been too perfect.

But I ran into her one night at the cafe where we used to hang out. As soon as I saw her, I knew the rumors were true. She looked awful. "Hey," she told me. She didn't sound too good either.

"Control says she's sorry," Emily told me, nursing a beer. "She really did like you."

"I guess I believe that, now," I said. "But what's done is done. You know, I really respected that science thing of yours. Best idea I ever heard. Seriously. But you can't do that kind of thing when there are people on the other side who'll get hurt. It's, you know, unethical."

Emily glared. "You think I didn't get hurt myself?" she asked. "But finding someone to settle down with is the most important thing you can do. And you want me to take it on anecdotal evidence? I thought Brad would be good for me. I proved the hypothesis wrong. And it's damned good I did, or else Control might have hooked up with someone like him too, and things would've been worse. Really, the whole thing's your fault." She spat. "If you hadn't had your little anti-science tantrum, you and Control would still be together, I'd be looking for someone nice like you, and none of this would've happened."

"Emily," I started. I wanted to be mad, but right now I was too worried. "You can still find someone. I know what Brad did to you hurt you bad, but you don't need to do this whole downward spiral thing. Seriously, put away the beer, clean yourself up, and I'll introduce you to some of my friends. You can even make an experiment out of it, if it'll make you happy."

"It's not about what makes me happy," said Emily, "it's about the truth. As for whether I should put away the beer, that remains to be seen." She finished her can. "See you around."

A few weeks later, I saw her again. Control was drinking with her. I hoped it was just a lapse of standards on her part. The alternative — that Control had deliberately stayed sober while Emily drank, that they

had compared results, and that Emily had convinced her sister that alcoholism was the way to go — was really too horrible to contemplate.

Although considering what was to come, the phrase “too horrible to contemplate” really shouldn’t be used so lightly.

It was a few days before graduation. I hadn’t seen either of the twins in a couple of months. I vaguely felt like I should search them out and say some sort of goodbye before I left the university forever, but things kept getting in the way, and I didn’t bother. It was the professor I’d been TAing for who first told me the news.

“You know Emily?” he asked. “The twin sister of that lovely girl Control I had a few years ago? Don’t tell anyone yet, but the faculty just got an email about her. Apparently she killed herself. Overdosed on some pills, don’t know how she got them. Very sad. And everyone said she was such a nice girl, too.”

I was shocked. I really didn’t know what to say. I knew that between her experience with Brad and the alcohol that she’d been in a bad way lately, but I never could have imagined it would come to this. The funeral was the day before graduation. I was there. Control was there too. I don’t think we spoke two words to each other. I was in shock. She was obviously in shock. We listened to the pastor go through his empty ritual — ashes to ashes, dust to dust — and then I returned to school for a decidedly joyless graduation. Control was a year behind me; thank goodness she didn’t have to endure those two ceremonies juxtaposed in quite that way.

After that I left town pretty quickly. I had a job offer a few hundred miles away, so I took that and soon my memories of college were far behind me. I emailed Control once or twice, expressing my condolences, saying how sorry I was that things didn’t work out between us, telling her I was sure she would bounce back. She responded with equal platitudes: she appreciated my concern, she was trying her best. After a little while, even the meaningless formalities of email were abandoned, and we lost touch completely.

It was six months after graduation. I’d heard about a better job offer back in the old college town, so I’d driven down for the weekend to interview. It had gone well, I was fully expecting a call saying I’d got the job, and I stopped off in the old cafe I’d spent so many hours in to get myself some ice cream in celebration.

There at a table in the far corner was Control, intensely focused on something. I went closer; I saw the object of her interest. She was hunched over a Ouija board. She looked up. "Oh!" she said, with a look of surprise. "I didn't know you'd..."

My blood turned to ice.

It was the simplest possible plan. I should have guessed it months before. For "who would bear the whips and scorns of time, but for the dread of something after death?" And so the experimental and control groups had been randomly assigned, and one of them had entered the great beyond, and the other had stayed in this world of suffering, and God help them they were going to compare results.

So of course I fled as fast as my legs could carry me, and of course I never returned, not even to hear if I'd got the job. And of course I deleted Control's number from my phone, blocked her email account, blocked her on Messenger, unfriended her on Facebook, cut off all contact with everyone I knew in college where there was even the remotest chance they knew her. Because that was one experimental result I never wanted to hear.

What if the next morning, I had found Control dead? Then I would know with all the certainty of science that it was better to die than to live; that life was empirically and incontrovertibly pointless, that those who passed away were the lucky ones compared to us condemned to remain on Earth.

And if I saw her the next morning, bright and lively as ever? Oh God, how much worse that would be! It would mean scientific proof that no matter how wearisome and unpleasant life become, what awaited us beyond the grave was far, far worse. It would mean living in fear of an eternity whose content was unknown, but whose dreadfulness was incontrovertible. Let others say that "all knowledge is worth having"; I am far happier not knowing.

So if you ever meet a girl with straw-blond hair and a smile to die for, a bright enthusiastic girl with a penchant for statistics, and maybe you are attracted to her and maybe you aren't, but you think you would like to get to know her better; well, before you ask her name, think for a moment about whether you want to burden of knowledge that will go with it. And if she smiles at you and says her name is Control, and that it's a funny story, then you are lost, and all I ask is that you never tell me how she's doing.

## VI. Mythological



## The Witching Hour

On an ordinary evening, Tal Aivon was lively and pleasant. The collection of longhouses and yurts within its tall brick walls shone bright with kerosene – not just torches, real kerosene – and its communal meeting area was noisy with conversation and song. The children would be playing their games, and on the eves of holy days the Lorekeepers would chant their stories of the Lost World, accompanied by lyres and the town's one decaying gyitar.

Tonight, though, a pall lay on Tal Aivon. The six gates of its tall brick walls were barred and shut, and foreboding warriors dressed in odd combinations of Kevlar and steel armor stood just within them, brandishing their swords. Families locked themselves in their yurts and longhouses, huddled around little kerosene lanterns. In the temple, the priests knelt before the stone idols of St. Christ and St. Mahomet, chanting plaintive prayers for protection.

"I still don't understand," Meical Dorn complained, from inside the longest longhouse "what this is all about. "None of the wildlings are anywhere nearby – I should know, I've came through two hundred miles of forest to get here – and the only three towns in this area are at peace with you. In Great Rabda, even an impending attack couldn't make us cower inside like this. I have half a mind to think there's something you're not telling me, Fin. Something that might...threaten our deal."

Fin Lerisas, Chief Lorekeeper for Tal Aivon, sighed. "Nothing that would threaten our deal, Meical. Great Rabda has gold. We have sunblessings. Just stay here long enough for our bankers to figure out the price, and you'll have timers and mathers and lighters of your very own."

Meical glanced longingly at the Chief Lorekeeper's own sunblessing, a timer that stood on the shelf of his private room. 1:52 AM gleamed on its face, with an maddeningly smooth red glow unlike sunlight or moonlight or firelight. Yet Meical knew it was sunlight, or something like. He was the Lorekeeper of Great Rabda. The Lorekeepers of Tal Aivon were far wiser than he – how could they not be with the town's close proximity to ruined Diteroi and its trove of artifacts from the Lost World – but even he knew how sunblessings worked. You took them

outside and the blue tiles on their surface fed on sunlight. Then they worked various miracles. Timers would tell you the time far more precisely than any sundial – invaluable in keeping the schedule of sacred prayer decreed by St. Mahomet. Mathers would add and subtract quantities more quickly than the fastest savant. Lighters would shine at night without wood or kerosene.

Meical had no doubt that the Lorekeepers of Tal Aivon – the wisest on the Great Peninsula – knew of still other sunblessings, ones that mighty but lore-deficient Great Rabda had never heard of. He himself would be happy with anything – even the meanest timer. Of all the millions of wonders built by the Lost World, only the sunblessings still worked, and they were in fiendishly short supply. While lore-rich Tal Aivon had a timer upon each of its six gates, Great Rabda, for all its bountiful gold and grain, had not a single sunblessing to call its own. As its Lorekeeper, it would aid his status immensely if this trade mission was successful and he could bring something back to demonstrate the power of the Lost World and, incidentally, his own importance as keeper of its Lore.

But even his greed for power did not override his concern for his own safety. “I’m serious, Fin. I want to know what’s going on. I can’t deal with a city that won’t even tell me why it’s on high alert.”

Fin Lerisas, Chief Lorekeeper of Tal Aivon and wisest in ancient matters on the whole Great Peninsula, gave another sigh. “If you were not a Lorekeeper yourself, I would not sure such secrets with a foreigner. But if it threatens the deal, very well. Only know that you will be no happier with this knowledge, and that you may not sleep quite as soundly on autumn nights from now on.”

Meical gave a nod, indicating he wanted the old man to continue.

“In Great Rabda you have no sunblessings, and so you must keep the time like wildlings, by watching the course of the sun. Here in Tal Aivon we have six timers, one on each of the city gates, and so everyone down to the meanest peasant knows the time, down to the second. To most, they check the time when they enter the city, and the time when they leave the city, and they never think any more of it. We Lorekeepers are more astute, but not infinitely so. And so it was only forty years ago, in the time when my uncle Derech was Chief Lorekeeper, that we noticed” (and here his voice changed to a whisper) “that *there is something wrong with Time.*”

"The stars," he continued "sometimes match the time as told by the timers, and sometimes they do not. At first we thought the flaw was in the heavens themselves, so perfect are the devices of the Lost World. But this so discomfited my uncle that for three months he sat in front of this very timer, handing it off to an acolyte only when he slept. And one night, his watch bore fruit."

"What happened?" asked Meical, breathlessly.

"Time moved backwards," said Fin.

"Impossible," said Meical.

"It was on this very night," said Fin. "Time, which three hundred sixty four days of the year moves only in one direction, suddenly jumped backwards. And you yourself will witness it."

He pointed to the timer on his shelf, which now read 1:59 AM. Its red glow suddenly looked unfriendly, even eerie. Even though Meical knew it had to be sunlight at its root, it held none of the wholesomeness of the sun.

And then it changed. 1:59 turned to 1:00.

Meical gasped, and his fingers instantly formed the cross of St. Jesus and then the crescent of St. Mahomet. "Madness!" he whispered.

"Something," said Fin, "is wrong with this night. It is not always this night – it can come as early as three days before, or as late as three days after. My uncle worked out the formula after several years. But every year, it happens. Time jumps backwards."

"But why?" asked Meical. "Why would the gods do such a thing? Why would they break the symmetry of the True Time and the heavens?"

"That's the worst part," said Fin. "When I was younger, I looked over my uncle's formula – the one for calculating the day when the time skip would happen – and found what he had missed. The day of the time skip is fixed to the seven day calendar of the Lost World. To the ancients, it would always occur on the same day of the week. Sunday. Their holy day."

Meical felt his blood run cold. "That's...some coincidence."

"Perhaps," said Fin. "But I don't think it *is* a coincidence. The gods are

just. They would not play with Time as children play with blocks, picking one up here, then putting it down far away. I think the ancients of the Lost World, the ones who could build the great glass towers, the ones who manufactured sunblessings, the ones who made Diteroi-That-Was – I think they took their magic and threw it against time, and broke it. I think they wanted to become lords of time itself.”

“But they failed,” guessed Meical.

“They created a single hour,” said Fin. “Of the nine thousand hours in a year, all but one were made by the gods, but one was made by Man. What stopped them from creating more, from creating an infinite number of hours, from becoming immortal by arresting the progression of Time? We will never know. But it is my belief that when they saw what men had done, the gods stopped them before they could do worse. Meical, I believe that is how the Lost World ended. A last ditch effort by the gods to save Time itself from the hubris of Man.”

Meical was silent. For all their wisdom, none of the Lorekeepers claimed to know how the Lost World ended. Surely the gods had pulverized it for some offense, but what sin could have been so dire as to doom those magnificent glass towers, those great black roads as smooth as water? Meical looked at the clock, gleaming 1:03 AM, and knew. Knew in his heart that Fin was right.

“There is a day in the very early springtime,” said Fin, “when an hour disappears. The gods are stingy. They would not grant the ancients their victory. What they did with that hour in springtime, I do not know. But their message is clear.”

Meical shuddered again. Like all the inhabitants of Great Rabda, he had told the time with the sun and the stars. But it had always been an approximation, not the to-the-second True Time displayed on the six gates of Tal Aivon. And so in their ignorance they had missed no fewer than two violations of Time, and it had fallen to the people of Tal Aivon alone to guard these terrible secrets.

“You ask why we extinguish our fires and pray this night. Nine thousand hours in the year were made by the gods, but one was made by Man. I cannot help but wonder what walks abroad, during the hour no god made. I cannot help but wonder what spirits awake on the anniversary of the old world’s death. When time itself stands stagnant, what sorts of things breed within it? I prefer not to think about such things. That is why for the past forty years, ever since my discovery, I

have knelt with the priests in the temple, and joined in their prayers. With an honored guest such as yourself here, I thought to entertain you instead, to avoid worrying you. Now I see that thought was vain. Will you come to the temple and pray with me?"

And so on the longest night of the year, Fin Lerisas, Chief Lorekeeper of Tal Aivon, and Meical Dorn, Lorekeeper of Great Rabda, knelt in the temple and prayed to St. Jesus and St. Mahomet that time continue, that 1:59 AM be followed by 2:00 AM just as it always had in the past, and that the people be forgiven the sins of the Lost World, which had dared to change Time itself. And lo, at the appointed hour the six clocks on the six gates of Tal Aivon showed 2 AM, and the people rejoiced, and the kerosene lights were lit and the city of Tal Aivon was lively and pleasant once again.

Three days later, Meical Dorn left Tal Aivon minus the gold he had brought but with a sunblessing of his own, a beautiful slate-gray mather that would have the engineers of Great Rabda dancing with glee. They had offered him a timer instead, a beautiful digital timer that even played short tunes at different hours, but Meical had refused. He bore a secret that need not trouble the people of Great Rabda. They would have a mather, and calculate things lightning-quick, and never know that there was a flaw in Time that even the gods themselves could not resolve.

But until the day he died, every so often on chill autumn nights Meical Dorn would look up at the stars and shudder.

# Also May Not, Technically, Have Happened

The man bumped into me, knocked the wind out of me, and then apologized a second later.

“Sorry!” he said. Then he stopped, thought a second. “By the way, you don’t know where I could find a decent Indian restaurant around here, do you?”

“Actually, there’s one just a few minutes that way,” I told him. “I’m heading that direction myself. You can follow me if you want, I’ll point it out to you.”

“Oh, thanks.” He held out one of his six blue hands, which I reluctantly shook. “I’m Mahaksuryana. Pleased to make your acquaintance.”

“This is kind of going to be a weird question,” I said, “but are you a Buddhist god?”

“Hindu, actually,” said Mahaksuryana, “but I’m not offended. I like the Buddhists. They’re pretty chill.”

“I’m... not sure they’d let you into a restaurant, looking like that,” I said. “Or, well, they might, but you’d pick up a lot of unwanted attention.”

He closed his eyes for a second, and clasped his hands in a posture of infinite inner peace. His blue skin changed to a dusky brown, and four of his six arms vanished. I began walking, and he followed.

“Sorry,” he said. “It’s been a long time since I’ve been down here. You’ve kind of screwed the place up, no offense.”

“None taken,” I said. “We humans haven’t always been perfect stewards of our planet, but I do think that —”

“I mean,” continued Mahaksuryana, “we told you lot not to eat cows. But would you listen?”

“What? What does eating cows have to do with all of this?”

The Hindu god sighed. “Think about it. The number of living humans

increases every generation. A hundred fifty years ago there were only a billion humans. Now there are seven billion.

“We’re supposed to reincarnate the souls of the dead into new bodies, but there just aren’t enough souls to deal with the population explosion. That’s not even counting the virtuous who achieve enlightenment and break the cycle of reincarnation, or the wicked who have to be reincarnated as cockroaches for an aeon as just desert for their sins.

“We used to have procedures for something like this. The most virtuous animals would be reincarnated as human. Usually it would be some courageous tiger or some especially clever monkey or something, or a war elephant who served his master well.

“But now you’ve cut down the jungles and drained the swamps and there just aren’t a whole lot of monkeys and tigers running around. In fact, the only large animals with complex nervous systems that continue to exist in numbers even remotely similar to those of humans are your farm animals. Not to mention they’re conveniently located in large human habitations. If we need a soul in central Iowa, stat, no way we’re going to go looking for the last remaining population of wild tigers in Bangladesh.

“So the overwhelming majority of your people were farm animals in their past lives.

“But think about how you treat your farm animals. Factory farming. Force fed through tubes so their diet can be precisely controlled. Locked in cages exactly the size of their bodies to prevent them from using their muscles lest the meat become less tender. Separated at birth from their families. Never seeing the sun or the green grass. Pumped full of drugs so they can be packed side-to-side in vast warehouses without infection.

“And then your children are born, and almost from birth they start to go wrong. Stuffing themselves full of food and avoiding exercise. Isolated from their families and each other. Retreating from nature and the open spaces to watch television in dark rooms. Stuffing themselves full of drugs, from alcohol to cocaine, in an attempt to make themselves feel better.

“And your psychiatrists write in their journals about how rates of depression, autism, and attention deficit disorder are increasing by

orders of magnitude each generation, and they don't know why."

"Honestly, sometimes I can't blame Kali for just wanting to destroy the whole thing and start over. I guess she'll get her way soon eno—

—oh, look, there's the Indian restaurant! And it looks delicious!"

And with divine precision the Hindu god Mahaksuryana bowed, did a perfect quarter turn, and stepped through the door. I would have followed, but I was in a hurry, and something warned me to stay away.

I never saw Mahaksuryana again, and honestly that's just fine by me."



# Clarity Didn't Work, Trying Mysterianism

In the treasure-vaults of Til Iosophrang rests the Whispering Earring, buried deep beneath a heap of gold where it can do no further harm.

The earring is a little topaz tetrahedron dangling from a thin gold wire. When worn, it whispers in the wearer's ear: "Better for you if you take me off." If the wearer ignores the advice, it never again repeats that particular suggestion.

After that, when the wearer is making a decision the earring whispers its advice, always of the form "Better for you if you...". *The earring is always right.* It does not always give the best advice possible in a situation. It will not necessarily make its wearer King, or help her solve the miseries of the world. But its advice is always better than what the wearer would have come up with on her own.

It is not a taskmaster, telling you what to do in order to achieve some foreign goal. It always tells you what will make you happiest. If it would make you happiest to succeed at your work, it will tell you how best to complete it. If it would make you happiest to do a half-assed job at your work and then go home and spend the rest of the day in bed having vague sexual fantasies, the earring will tell you to do that. *The earring is never wrong.*

The *Book of Dark Waves* gives the histories of two hundred seventy four people who previously wore the Whispering Earring. There are no recorded cases of a wearer regretting following the earring's advice, and there are no recorded cases of a wearer not regretting disobeying the earring. *The earring is always right.*

The earring begins by only offering advice on major life decisions. However, as it gets to know a wearer, it becomes more gregarious, and will offer advice on everything from what time to go to sleep, to what to eat for breakfast. If you take its advice, you will find that breakfast food really hit the spot, that it was exactly what you wanted for breakfast that day even though you didn't know it yourself. *The earring is never wrong.*

As it gets completely comfortable with its wearer, it begins speaking in

its native language, a series of high-bandwidth hisses and clicks that correspond to individual muscle movements. At first this speech is alien and disconcerting, but by the magic of the earring it begins to make more and more sense. No longer are the earring's commands momentous on the level of "Become a soldier". No more are they even simple on the level of "Have bread for breakfast". Now they are more like "Contract your biceps muscle about thirty-five percent of the way" or "Articulate the letter p". *The earring is always right*. This muscle movement will no doubt be part of a supernaturally effective plan toward achieving whatever your goals at that moment may be.

Soon, reinforcement and habit-formation have done their trick. The connection between the hisses and clicks of the earring and the movements of the muscles have become instinctual, no more conscious than the reflex of jumping when someone hidden gives a loud shout behind you.

At this point no further change occurs in the behavior of the earring. The wearer lives an abnormally successful life, usually ending out as a rich and much-beloved pillar of the community with a large and happy family.

When Kadmi Rachumion came to Til Iosophrang, he took an unusual interest in the case of the earring. First, he confirmed from the records and the testimony of all living wearers that the earring's first suggestion was always that the earring itself be removed. Second, he spent some time questioning the Priests of Beauty, who eventually admitted that when the corpses of the wearers were being prepared for burial, it was noted that their brains were curiously deformed: the neocortexes had wasted away, and the bulk of their mass was an abnormally hypertrophied mid- and lower-brain, especially the parts associated with reflexive action.

"Finally, Kadmi-nomai asked the High Priest of Joy in Til Iosophrang for the earring, which he was given. After cutting a hole in his own earlobe with the tip of the Piercing Star, he donned the earring and conversed with it for two hours, asking various questions in Kalas, in Kadhamic, and in its own language. Finally he removed the artifact and recommended that the it be locked in the deepest and most inaccessible parts of the treasure vaults, a suggestion with which the Iosophrelin decided to comply.

Niderion-nomai's commentary: It is well that we are so foolish, or what little freedom we have would be wasted on us. It is for this that Book of

Cold Rain says one must never take the shortest path between two points."

# A Modern Myth

## 1. Eris

A middle-aged man, James, had come on stage believing it was an audition for *American Idol*. It wasn't. Out ran his ex-lover, Terri. "You said you loved me!" she said. "And then when I got pregnant, you disappeared! Twenty years, and you never even sent me a letter!"

The crowd booed.

As James tried to sputter a response, his wife ran onto the stage. "You cheating jerk!" she shouted at James. "You lying, cheating jerk! Twenty-five years we've been married, and I never..." She picked up a folding chair, tried to swing it at James.

"Stop!" cried James' teenage daughter Katie, joining in the fray. "Mom, Dad, stop it!"

"You stay out of this!" shouted James' wife. "Maybe if you'd had a good male role model, you wouldn't have become a *lesbian*."

The crowd gasped.

Katie's girlfriend Lisa came out of a side door. "You take that back!" she yelled. Then she saw Terri. "Wait? Mom? What are you doing here?"

"That's right," said Alice DiScorria, sidling onto the stage, effortlessly drawing the audience's attention from the brawl taking shape in front of them. "Katie's girlfriend is the daughter of the woman her father cheated with, so many years ago. And we've got the paternity test right here." She theatrically opened a manilla envelope. "And...James! James is the father!"

"I'VE BEEN LESBIAN LOVERS WITH MY HALF-SISTER!" shrieked Katie.

"This is all your fault!" everyone shouted at everyone else in unison. Then the punching started.

In short, it had been another successful episode of *The Alice Show*.

Now Ms. DiScorria was in her dressing room, wiping off the night's makeup, trying to decide where to go to dinner. Knock, knock. She

opened the door wide.

There stood Katie and Lisa. Katie was holding a shotgun.

"Why would you do this to us?" screamed Katie. "We were a happy family!"

"I loved her!" added Lisa.

"Why?" Katie screamed at her, waving the gun. "WHY?"

"Oh, put it away," said Alice. "We both know you're not going to shoot me. And it wouldn't hurt me if you did. I do this because I'm Eris, the Greek Goddess of Discord. I destroy peace. I set people against each other. Then, when their petty fights destroy everything they've worked for, I stand over the ruins and laugh. It's my thing. Here. Have a golden apple."

It appeared in Alice's hand, shining with beauty that defied description. "FOR THE FAIREST" was written on the front in letters of liquid light. Katie dropped her gun and stared. Lisa rubbed her eyes to see if she was dreaming. For a brief moment, no one moved.

Finally, Katie asked, "You're...*giving* it to me?"

"Absolutely. To you and your girlfriend. Traditionally, I think it would go to whichever of you is prettier."

Gently, she placed the golden apple on her dressing table, winked at the girls, and left the room. She closed the door behind her, so nobody would hear the screams.

## 2. Ares

"Look," Tom told Ari, "you always seem to come out of this kind of thing okay. So if I don't make it tomorrow, I want you to give this to my wife." It was an envelope. There was no address, just 'TO BE OPENED IN THE EVENT OF MY DEATH'.

"Stop talking like that, Tom," said Ari, taking the envelope and putting it into his backpack. "You'll make it. The Taliban's gonna fold like a wet rag tomorrow, I promise."

"Easy for you to say. In Helmand, half your squad dies, you just walk out with a big grin on your face. Kandahar, outnumbered eight to one,

and not only do you win, you end up with two Medals of Honor. I didn't even know you could *get* more than one Medal of Honor for a single battle. Yeah, sure, you'll be fine tomorrow. The rest of us, we're only mortal."

"Yeah," said Ari. "I can see how that would suck."

"Look, you're doing me a big favor, taking that envelope," said Tom. "Anything I can do for you? You know, in case the worst happens?"

"Nah, don't worry about it."

"There's nobody back home you care about? Wife? Girlfriend? Family?"

"Fuck all. No wife, no girlfriend, and a family dysfunctional like you wouldn't believe."

"Where are you even from, Ari? You never talk about it."

"Who cares?"

"I care. Heck, half the squad thinks you're some kind of government supersoldier, the other half thinks you should be in a loony bin. You're *interesting*, Ari."

"Well, fine. I'm Ares, Greek god of war. I'm the son of Zeus and his sister Hera, and let me tell you, marrying your sister works about as well as you'd expect. I used to be a big deal, shape the destiny of whole nations, rise of Rome and all that. Then my power crashed along with everyone else's. Man, I don't even remember the Dark Ages. The whole medieval era is a blur. By the time I start feeling like myself again, it's the Renaissance and everybody's fighting with muskets. Nowadays...man. I can fight better than you mortals, you gotta give me that. But in terms of god stuff...I remember when I could make all of fucking Persia flee in abject surrender. Now I'm stuck taking pot shots at Taliban assholes. Meanwhile, they're all shouting about Allah, and you guys are all shouting about Jesus, and nobody even fucking believes in me anymore."

"I believe you," said Tom.

"Really?"

"Yeah," said Tom. "In Kandahar, I saw a bullet pass right through you. How would a government super-soldier manage that? Sure. You're

Ares, god of war. I'll worship you, if you want."

"What fucking good would that be?"

"Think about it! You said that you and all the other gods lost your power back in Roman days. What happened in Roman days? Constantine! The start of Christianity! That must have been what did it! Gods' power comes from people believing in them!"

"Why does *every* mortal always figure that gods' power comes from people believing in them? Like you're all some kind of god power experts? Do they teach that to baby mortals in their little mortal schools? Stupidest thing I ever heard. You think we ruled the world for a thousand years and didn't check where our power came from? We figured that out a long time ago. Divine power comes from meat."

"Meat?"

"Yeah. Like, you know, sacrifice a ram to Ares, pray for victory, then eat it in a big communal feast in the barracks. The more meat sacrificed in a god's name, the stronger he got."

"But then it's still about belief. People stopped believing in you, so they stopped sacrificing rams to you."

"You've got it ass-backwards. We were at the height of our power. People were sacrificing rams to us right and left. Then it stopped working. One year the meat started having a little less effect. The next year it was a little less than that. Eventually it was gone. And then when the gods became powerless, the cults collapsed, and *then* the Christians and Muslims and all the rest stepped in to fill the gap."

"So what can I do? There's some meat in the mess hall, I can sacrifice that for you if you want."

"I'm telling you, it won't work. The power's gone. It's been gone for two thousand years. Me – and all the rest – we're stuck like this. Some kind of natural floor to our power, still more than mortal but forever less than divine. It's fucking awful and I hate it. I hate not being able to smite whole nations when I'm angry. I hate having to take commands from 'superior officers' because I'm 'just a grunt'. And most of all, I hate that people have *forgotten about us*. We used to be *big*, Tom!"

"People haven't forgotten. They love you guys. There's still, you know, Hermes handbags, and Athena mineral water, and, you know, Mars

bars....”

“I am the lord over war, the manslaughtering one, the bloodstained one, he of many devices, bringer of much weeping, destroyer of men. I AM NOT A FUCKING CHOCOLATE BAR.”

“Sorry, man. I was just saying...”

“I know. You wanted to make me feel better. That’s what I’ve come to. Having to be consoled by mortals. You know what’s going to make me feel better, Tom? Killing some fucking Taliban tomorrow.”

“Yeah. Okay.”

“Look, I’m sorry, I didn’t meant to...”

“It’s not that. But, uh, Ari. We’ve got a big battle coming up tomorrow. And I know this probably sounds really crazy to you, but humans – praying makes us feel better. That’s why we do it all the time. To Jesus or Allah or whoever. And we don’t really expect it to work, so...um...”

“Out with it, Tom.”

“...is it okay if I pray to you tomorrow?”

“Knock yourself out, Tom.”

### 3. Apollo

Ianthe had always liked magic squares. They were one of the oldest forms of magic. A Sator square had been found scrawled on one of the walls of Pompeii. Since then the art had advanced, and she was its master. She would fill the word square with words relating to the sun, and Apollo would appear before her. Working with gold ink, she traced the letters carefully:

C I R C L E  
I C A R U S  
R A R E S T  
C R E A T E  
L U S T R E  
E S T E E M

Apollo appeared before her, devilishly handsome, impeccably well-dressed, unfailingly polite. He’d told her once that in his other identity,



he was a professor at some college somewhere. She could believe it.

"Ilanthe, my daughter," he said, his voice smooth and golden. He always called her that, even when he was doing very un-fatherly things to her. Though come to think of it, in *his* family that might not be such a jarring contradiction. She wondered if he'd known Oedipus.

"Lord Apollo," she said. "I have called you here to request a boon."

His face fell. He had explained the first time he met her that his powers were weak. That he couldn't help her the way she might have wished. Couldn't grant her wealth or wisdom or prophecy the way he might have in days of old. Since then she had never asked him for anything but himself.

"It's...nothing too difficult," she assured him. "Just...actually, I wanted to say good-bye."

"Good-bye?" asked Apollo.

"There's...someone's hunting us. The neopagan community. I told you about Megan, right? The girl who used to run a traditionalist group up in Santa Cruz? They found her dead two weeks ago. There's a Wiccan circle over in Oakland that deals with Greek themes sometimes; two of their leaders have been missing since January. And then Aristopsychus the Wise...that's what he calls himself, seriously, one of the crazy sorts who attacks people drinking Athena Mineral Water and says they're profaning the name of a goddess...I just got a call. His head was bashed in last night. I'm really afraid, Lord Apollo."

He looked at her, his face infinitely wise and sorrowful, and she knew he could do nothing.

"That's why I'm leaving here," she said. "I haven't told anybody, nobody else in the neopagan community, not even that weird girl Emily who thinks she's my 'acolyte'. I'm shutting down the temple and going somewhere really far away where nobody can find me, and I don't know when I'll be able to summon you again."

"I understand," said Apollo. "May good fortune go with you."

"But I was asking you for a boon. I need you to take something from me." She took out a paper bag and produced an apple, brilliant gold, shining with an unearthly radiance. Apollo stepped back as if someone had struck him, his calm manner broken for the first time Ilanthe had

seen.

"Where did you get that...that *thing*?" asked Apollo.

"A detective gave it to me! He was investigating a crime scene. These two girls murdered each other in a Hollywood studio dressing room...it was all over the news. And this guy was called in to investigate the crime scene, and all he could find was this golden apple that said "for the fairest". And after all the legal things were closed he didn't want to throw it out, because it looked so pretty, and he heard about our temple here, and he figured it looked like something a Greek pagan revivalist movement should own, so he gave it to me. And as soon as I saw it...this sounds so bad, but I didn't tell any of the others, not even Emily. I brought it home and never told anyone about it. But I'm scared, Apollo. I'm scared it has something to do with the reason all this is happening. I don't want to leave it here and I don't want to take it with me, so...please, just take the apple. Before it makes me change my mind!" She wasn't looking at it; she was *carefully avoiding* looking at it.

"I can't," said Apollo.

"You have to!" said Ianthe.

"No, I mean, literally, I can't," said Apollo. "The apple has to belong to a woman. Any woman who sees the apple, she wants it more than she's ever wanted anything else. Any man who sees it, no effect. Even if a man gets it, he feels compelled to give it to a woman. That must have been what happened to your detective. I really, *really* do not want that apple. You have no idea how bad things get around one of these."

With a grunt and an effort of will, Ianthe threw the golden apple at Apollo's face. He caught it in his hand reflexively, involuntarily. "Take it!" she said, as he stared at his unwanted prize. "You're a god! I'm sure you can think of a woman who can keep it safe for you!"

"Ohhhhh....this is *not good*," Apollo said, through clenched teeth. "I hate these things, I hate these things, I hate these things, I hate these things..."

Ianthe erased a letter from the middle of the magic square, and Apollo disappeared. Then she picked up her suitcase, got in her car, and started driving, intent on putting as much distance as possible between herself and anywhere people would be looking for her.

#### 4. Aphrodite

She stays by the sea shore. Shining shells and soft surf sounds surround her shelter. Cythera simmers with summer, and seals swim in the sun. Songbirds circle in the sapphire sky, and sea stars sit semi-submerged in the sand.

Ares wades out to the cliff where he knows he'll find her, a cliff of soft pink rock that looks like any other on this side of the island. On a little depression in the rock which only he can see, he traces letters with his fingers:

M O A N  
O N C E  
A C M E  
N E E D

The cliff opens around him, and he is in the bower of Aphrodite.

She is naked. Her body glistens with sea-foam. She is behind a glass shelf filled with seashells, and from where Ares is standing, two of them perfectly cover her breasts. On the near wall are pictures of her family: her husband, Hephaestus; her son, Eros; her parents, the sea and the blood of Uranus; her nth-great-grandson, Julius Caesar. On the far wall is a banner reading "UNDEFEATED GOLDEN APPLE WINNER, 1200 BC – PRESENT", and several oak barrels overflowing with golden apples that cast an unearthly glow all over the room.

"Hello, sexy," she says.

He tries to play it cool, act natural. "Hey Aph," he says. "Just dropping by."

There is no sign of her husband.

"Come on, Ares. You never 'drop by'. What is it *really*?"

"Um," says Ares. He is acutely aware of the god-sized erection he probably has right now. He keeps his eyes fixed on the barrels of golden apples, so as not to stare. "Um," he says again.

"I heard about what happened in Kandahar," she said. "That was *very heroic* of you." She gently brushed her arm against his.

"Um," said Ares. "That's...kind of...look. This soldier guy I knew. He

asked me if...if there was anyone back home I cared for. And I said no. Fuck everyone. You know. Mom, Dad, fuck them all. But then I started thinking. We had something good. A long time ago. And I was thinking, maybe..."

"But Ares," she said, biting her lip, "you know I'm married."

"You were married the last five times too," Ares said, forcefully now. "It's kind of a big part of having an affair."

"But," she said, running a hand through her golden hair, "what if people found out?"

"People found out the last five times too," he said. "Nobody thought anything of it. You're the goddess of love. Of lust. Love and lust. Of course you have affairs."

"What if my parents knew? It would break their heart."

"Your parents are the sea, and the blood that came out of a guy's scrotum when my grandfather castrated him. I think they'll be fine."

"Oh, Ares. You know so much about me."

She pulled him closer. She closed her eyes. His lips touched hers. Then –

"We can't do this, Ares. We're just too different, you and I. Love. War. It wouldn't work."

"We are *not* different. All's fair in both of us, for one thing. We're both, uh, relationships between two parties. Often involving fighting. More fun when you're high testosterone. And when you've got a big spear."

"I love it when you talk dirty to me, Ares," said Aphrodite, and put her hand around his waist. He tried to kiss her a second time.

"No," she said suddenly. "I can't. What about the children?"

"Your child is Eros!" protested Ares. "How is that a problem?!"

"Show me you care," said Aphrodite.

"I care!" said Ares. "I promise you, I care. Tom – this soldier I know – he was telling me all about his wife, and how much he loved her, and I was

thinking, I need something like that, and then I remembered – I’ve got that. You’re the one for me. You’re the only one I want. I promise.”

“Show me,” said Aphrodite.

“How?” asked Ares. “What can I do to show you that I care?”

Aphrodite let her hand linger on his shoulder, then walked to the other side of the room. She picked up a golden apple.

“There’s another golden apple in the world now,” she said. “I can *feel* it, Ares. That apple is *mine by right*.” For a second, all the softness disappeared from her face, and he knew why one of her epithets was ‘the warlike one’. “I want that apple, Ares. Bring it to me.”

“But baby, you already have like a million golden apples. Look, you’ve got barrels full of them. You’re not even using – ” He picked up a golden apple that had fallen behind one the barrels.

“It’s the *principle* of the thing, Ares. It says ‘for the fairest’. Am I not the fairest? Have I not been the most beautiful of goddess and women since before Paris was a glimpse in his mother’s eye? Somebody else has my magic apple, Ares, and I am *literally shaking* here. You are my protector, the hero of Kandahar, the man who got two Medals of Honor in the same battle. Can you rescue me?” She knelt before him. There were tears coming out of her eyes. She hugged his leg.

“I’ll...I’ll get you your apple, Aph. I’ll find whoever’s got your golden apple, and if they don’t give it back, I’ll...” He took out his sword and swung it above him, so fast that it whistled in the air like the note of a lute.

“I’ll be waiting for you...” whispered Aphrodite.

Ares turned to go. The cliff face opened in front of him. The birds were still singing, and dolphins leapt for joy in the melodious waves. He was kind of a chump, but he knew this was the way of things, and it would never change.

“...I won’t be wearing any clothes.” Aphrodite called after him.

## 5. Hermes

He is called Herman. He runs a hedge fund. He lives in Manhattan. He wears nice suits.

Today he is in a nice suit, but he is not in Manhattan. He is in Memphis, Tennessee. Not even the nice part of Memphis, Tennessee. He's in a poor, crime-ridden ghetto in Memphis Tennessee, and it has a bridge, and he is underneath it.

He spots a big man sleeping underneath the bridge, wrapped in a ratty blanket. His beard is unkempt, and even from far away, he smells like alcohol.

"Hi Dad", said Hermes.

"Whaddyawant?" mumbled Zeus.

"It's me, Dad," said Hermes. "Hermes."

With some effort, Zeus brought himself into a sitting position, brushed some of the more egregious twigs out of his beard. He rubbed his eyes.

"Yeah, so? Whaddyawant?"

Hermes inspected the King of Gods and Men. He was streaked with dirt. He was dressed in a fading white wife-beater, with reddish stains that Hermes hoped were wine.

"I've been looking all over for you, Dad. You look terrible. What happened to you?"

"Whaddyoucare?"

"You used to be King, Dad!"

"I'm still king. Iduncarewhatchy'all think."

"But what happened to you? I talked to Ares the other day. He won two Medals of Honor, did you hear? Apollo's got tenure at Oxford. I'm the god of commerce and crime, so of course I've got a hedge fund. But you? What *happened* to you?"

"Fucking child support payments!" said Zeus. "I was doin' just fine for myself until cops from forty-seven different states came my front door calling me a deadbeat dad!"

"Oh dear," said Hermes. "Forty-seven women?"

"Forty-seven *states*," said Zeus. "Hundred ninety women. Two hundred

five kids. Fucking mess.”

“A hundred ninety women,” mused Hermes. “*Please* tell me you didn’t turn all of them into animals.”

“Are you fucking *kink-shaming* me?” said Zeus. “If I get off on having kids with women and then turning ’em into animals, that’s my private business. Ain’t no weirder than Ganymede being gay or your kid who’s a futa or...BLAAAAAARGH”. He turned and vomited the morning’s meal into the river. “Besides, I don’t got power anymore. Can’t even turn a pretty girl into an ape these days, forgeddabout a cow or a bear.”

“Look, sorry for bringing up your fetish,” said Hermes. “I didn’t know it was a sore point. I wanted to talk about something important. Dad, I’ve figured it all out.”

“You figgered what out?”

“All of it. What happened to us. Why we lost our power. *And how we’re going to get it back.*”

“Yeah?” said Zeus. He sounded skeptical. “I’m listenin’”

“Look,” said Hermes. “How did we used to get power? Animal sacrifice. And which animal? Rams. What astrological age was it? The Age of Aries, the sign of The ram. 2000 BC to 1 AD, or thereabouts. Then the age changes. The sun is in Pisces. Sign of the fish. Boom. Sacrificing rams no longer works. Who comes out on top? Some Israeli whose followers are all fishermen. Talk about being in the right place at the right time.”

“So yer saying, we need to get the mortals to sacrifice fish to us now, and then we’re back in business?”

“No. Because the Age of Pisces ended last century. Now it’s the Age of Aquarius. The Water Bearer.”

“So sacrifice water?”

“Well, this is where we start to have a problem. I know you have trouble remembering all your children, but perhaps you recall that a few thousand years ago, you had a daughter who happened to become the Goddess Of Wisdom, Intelligence, and Cleverness?”

“Never gonna forget *that* one,” said Zeus, rubbing his head.

"It would seem that my lovely and not-at-all-incredibly-annoying sister Athena figured all of this out about ten years before I did," said Hermes. He reached into his pocket and took out a bottle of Athena Mineral Water. "Behold! 91% market share. Aquafina? Bankrupt. Dasani? Out of business. And here's the best part." He held the label up very close, so Zeus could read it. "Athena Mineral Water Customer Reward Program," it said in small font. "Every time you drink a refreshing bottle of Athena Mineral Water, say 'Thanks, Athena!' in front of a registered associate, and they'll punch your card. Collect ten punches and get a liter bottle of Athena Mineral Water absolutely free."

"Whaddya sayin'?" asked Zeus.

"I'm saying that every day, about a million mortals are going into supermarkets, drinking water, and saying 'Thanks, Athena!', and each one of them is giving my beloved-and-not-at-all-aneurysm-inducing sister an amount of divine power equal to an entire animal sacrifice. I had some of my quants crunch the numbers, and right now I'm guessing she's about twenty times more powerful than you were at your prime. *At your prime*, Dad. She pretty much has a monopoly on divinity right now. We're really really really screwed."

"So you gonna take all that cash you got and open up your own water business?"

"I tried. They wouldn't even let me register it. Said it was a trademark conflict with Hermes Handbags. I got my lawyers to look up who owns Hermes Handbags, and it's a shell corporation belonging to a consortium belonging to a Chinese group belonging to a company registered in the Cayman Islands which was set up using money from... Athena Mineral Water. Mars Bars, same thing. Zeus Cameras, likewise. And it's worse than that. I try to find some neopagan groups, see if maybe I can get them to sacrifice a few bottles of water to me just until I can think of a solution that scales. She murdered all of them. In cold blood. Every priest or priestess who ever worshipped another Olympian. She's boxed us in, Dad."

"And that's why yer comin' to me. You want....*the power of lightning!*"

Zeus tried to stand in an imposing pose, but only succeeded in tripping on his blanket and crumpling back onto the ground.

"Dad, you can't summon lightning anymore. You haven't had that kind of strength for two millennia. And with the power Athena's collected, it



wouldn't help. But there *is* something you can give me."

"What?"

"I need to talk to Prometheus."

Zeus managed to bring himself into an approximation of standing. "Now listen here, sonny. Maybe I ain't much of a king of the gods anymore. I ain't got the lightning and the thunder and all that. But lockin' that bastard up was the best thing I ever did, and you know it, and yer not gonna take that away from me. You think yer so smart with your hedge fund, and yer money, and yer fancy East Coast suit, but I'm tellin' you, Prometheus would *eat you for breakfast* and he wouldn't even break out a sweat."

"Right, Dad. That's the thing. He's the only one who's smart enough to outmaneuver Athena. I'm proud of my brains, but she's the Goddess Of Wisdom, Intelligence, and Cleverness, *plus* now she's stronger than us, and I'm not sure how to get one up on the Goddess of Wisdom, Intelligence, and Cleverness without help from someone who's...uh... very *very* smart."

"Prometheus ain't just *smart*," spat Zeus. "It's not just that he has *book-learning*. He's *the God of Foresight*. He sees every possible future laid out in fronna him as easily as you or I see that there blanket." He pointed to the blanket, which was actually so dirt-covered that it was getting hard to see against the dirt below. "It took all of us together, *and* all the Giants, *and* all the Cyclopes to bring him down, and we wouldn'ta succeeded if the Fates themselves hadn't gotten pissed with him for ruining their weaving and given us a hand. And it was Athena herself who told us that we had to bind him somewhere far away, couldn't talk to him, couldn't even go near him, or else he'd figure out some way to screw up all our futures just by sayin' a couple a' sentences to us. And all a' you, and all the Giants, and all the Cyclopes, you all agreed, and you all gave me the key that lets you reach him, and I ain't given that key to anyone in the past two thousand years and I ain't givin' it to you now and that's final, you hear me, boy?"

"Then," said Hermes, "I fear we are all doomed."

"We're fucking *gods*," said Zeus. "We can't die. We can't even be contained, for long. Only gods we ever managed to lock up were the Titans in Tartarus and Prometheus in Elbrus, and that was only by all of us workin' together, and by my power as King of Gods, and if you

think I'm signin' off to any of this, yer crazy."

"Then we will wane," said Hermes, "and become little better than bugs skittering beneath Athena's feet."

"I ain't got much," said Zeus, "but I beat Prometheus and no one ain't ever going to take that away from me. Now get going, sonny boy."

"If I do not beat Athena," said Hermes, "you'll never be able to turn any women into animals, ever again."

Zeus paused, just a second, then spat. "I made my choice," he told Hermes. "Now git!"

## 6. Pandora

He remembered the first time he had come here to see her. It had taken him months just to find the place. An Orthodox convent. Our Lady Of Sorrows, just outside Kiev.

He had knocked on her door. "Come in," she'd said. She hadn't opened the door. At the time, he hadn't realized that was significant.

She was wearing a veil. "Dory?" he asked. She nodded slightly. "Dory, it's Apollo."

"You didn't forget about me." He couldn't see her eyes, but she was smiling.

"Forget about you? Dory, I've been sending you care packages every month!"

"Oh." A frown. "I'm sorry. I didn't...I don't open things."

"Oh."

"You understand, don't you?"

"I can see how it would be traumatic. But...you didn't get any of my letters?"

"They were in envelopes, Apollo. I told you, *I don't open things.*"

"Oh," he said. He lifted her veil, saw her face for the first time in years. "What, not even your eyes?"

Pandora nodded.

"The church is beautiful. It looks like a wedding cake. You haven't even been a *little* curious what the convent you're living in looks like?"

"I don't do curiosity anymore, Apollo. Curiosity leads me to bad, bad places."

"Dory." It was worse than he'd thought. He was the god of healing, or had been. His powers were weak, but maybe he could at least do some therapy? "Dory, you did one bad thing."

"I did *all* the bad things, Apollo. Literally. Every single one of them."

"Okay. Be that as it may. You were tricked. Zeus played a horrible joke on you. Or he used you as a pawn to play a horrible joke on everybody. It doesn't mean opening things is always bad, or that curiosity always gets punished. It means one stupid god played one stupid joke. Look, he could have put all the world's evils in, I don't know, his basement, and released them if and only if you *didn't* open a box. Then the lesson would have been to *always* open things. Do you see how that makes just as much sense as what actually happened."

"I'm sorry, Apollo," said Pandora. "I appreciate what you're trying to do. But it won't help."

"It might!" said Apollo. "Keep an open mind!"

"*I don't do open.*"

"Ah. Right."

He sat down on the little cot. She sat down beside him.

"So now you're a nun."

"I just live here. I wandered by one day, and the sisters took me in. Said I looked like I needed help, which I guess I did. I've stayed here ever since. They say that I'm good luck to have around. Can you believe that? Me? *Good luck?*"

"They like you," said Apollo. "Anyone would."

"It's because I don't age," said Pandora. "And because I never leave my room. They assume I'm a saint or something. Praying all the time. I'm

even starting to get pilgrims, if you can believe it." She waved her hand towards a table full of little knickknacks. "Gifts. The pilgrims give me gifts." She sighed.

Apollo went over to the table. A rosary. An icon, covered in gold leaf. Jesus, he assumed. A vial of holy water. "This is lovely," he said, looking more closely at the icon. "Who gave it to you?"

"I didn't ask," said Pandora. "I don't do curiosity."

"Ah," said Apollo. He took her hand again. "Come outside with me. I won't make you open your eyes. I'll lead the way. Just for a minute?"

They walked through the courtyard. A few nuns looked askance at them, but Apollo looked too poised to be anywhere other than where he was supposed to be, and they assumed he was a visiting priest or somebody and let him pass. They came to a meadow. Apollo gingerly guided Pandora to sit down on a rock, and sat beside her.

"We used to have a good thing going," he told her.

"And now I'm like this," she said.

"You might get better. With time."

"I might not."

"There's always hope."

"Yes, they say I closed the box just in time for that one. Strange how little I've gotten from it myself."

"Kiss me," said Apollo, on impulse.

"We had a good thing going once," Pandora said. "That's not me anymore."

"It could be," said Apollo. "Hope, and all that."

"I don't open things," said Pandora. "Not even my heart."

How many centuries ago had that been? Three? Four? They all blended together. The convent was no help either. Most places had the decency to change a little since the Renaissance. The convent looked exactly the same. Same meadow. Same courtyard. Same door. Apollo knocked. "It's

me, Dory.”

“Come in,” she said, without opening the door.

He came in, sat down on the cot. She looked the same, too. She was in a strange middle state; a human created before mortality, given all the divine gifts, to be the wife of a god. She wasn’t divine, not quite. But she wasn’t fully mortal either. A demigod, maybe.

“It’s been a while,” he said. “Five, ten years?”

“It’s been a while,” agreed Pandora.

The room hadn’t changed either, except for a few more pilgrim gifts. The rosary and Jesus-icon had been joined by enough little saints and angels to fill a heavenly choir, plus a good-sized marble statue of a woman in armor. He tried to remember if there was some female warrior-saint, but his mind came up blank. He wished he could ask Pandora, but he knew what she thought of curiosity.

“I brought you a present,” he said. “It’s a smartphone. Flip phones are on their way out. This one works without being opened.”

Pandora ran her hands along it. “It’s so smooth,” she said. “Now you can call me any time?”

“Yeah,” said Apollo. “You can call people too. If you ever feel, you know, the need to connect.”

Pandora gave him a little peck on the cheek, then slipped the phone under her bed.

“I wish I could say this was entirely a social call,” said the god, “but I’m here on business.”

There was a pause in the conversation before he realized she wasn’t going to ask what the business was.

“A friend gave me something dangerous. And I have to give it to a woman. But if the woman saw it, bad things would happen. Really, really bad things. And I asked myself, where can I find a woman who will listen when I warn her not to look at something? And, uh. I thought of you.”

“Sure,” said Pandora. “I’m happy to take your thing. Where shall I put

it?"

"Uh," said Apollo. "Somewhere where the pilgrims won't see it. That's important. Nobody can see it."

"I'll put it under my bed," said Pandora.

Apollo handed it to her. It was heavy, and cold to the touch, and round, about the size of a baseball. She slipped it under the little cot.

"Thanks," said Apollo.

"I'm glad I could help you with something," said Pandora. "You've been so nice to me."

"I haven't been! I never visit!"

"You visit sometimes. The others never visit. They wish they could forget about me."

"Um," said Apollo. "I'm sure they meant to drop by and tell you how they're doing."

"It's okay," said Pandora. "It doesn't matter whether I know how they're doing or not."

Apollo frowned. "Listen. I know you have your position in the pantheon, as Cautionary Tale Against The Dangers Of Excessive Curiosity. But I have my place too. Well, lots of places. The Sun. Healing. Music. Poetry. Being Very Handsome. But along with all those things, I'm the God Of Reason And Science. And maybe a long time ago, curiosity caused all the world's problems. But now it's the other way around. Curiosity's solving problems, Pandora. All over the world, curiosity is solving famine, it's solving poverty, it's solving disease. They put smallpox back in the box, Pandora!"

"Wait," said Pandora. "I never heard about that! They found a way to...?"

For a brief moment, Apollo thought Pandora was going to ask a question, but she caught herself. He answered anyway.

"Yes," he said. "There's a way to put things back in the box. Maybe. A little. Sometimes. It's really hard. So hard I wouldn't have been able to do it myself, and I'm the God of Healing. But they did it. Once. Maybe

they'll be able to do it again. And they did it because of curiosity. They wondered whether they could do it, and then they wondered how they could do it, and then they did it."

"That's...really interesting," said Pandora.

"You'll think about that?" asked Apollo.

"I will," said Pandora.

"And maybe...call somebody sometime? Me? Someone else? Anybody? I know Artemis has been wanting to hear from you."

"Um," said Pandora. "Maybe? I don't know."

"That's fine. Just...keep the option open."

"Apollo, *I don't do open.*"

"Just keep it in mind."

"Goodbye, Apollo."

"Goodbye, Dory."

## 7. Athena

"Hi. My name is Ari...Smith...and I'm here to see Ms...I don't know, she probably goes by Tina or Minnie or something like that. Really smart and mysterious and probably in charge of everything?"

The security guard at the entrance to the Athena Mineral Water Tower looked at him skeptically. "Do you have an appointment?"

Ares reached into his pocket.

"I got my fucking appointment right here! Two Medals of Honor! While you guys were selling water to yuppies, I was risking my life for your freedom over in Afghanistan. Come on, man. Can't a vet get any respect around here?"

The guard shook his head. "Can't get in without an appointment," he said.

"So," said Ares, "it has come to this. Same as always." A bronze spear appeared in his hand, and he rammed it right through the security

guard. Didn't even bother extracting it, there was more where that came from. Somebody screamed. An alarm sounded. Whistling, Ares walked through the lobby and into the elevator, pressed the button for the top floor. That was where important people had their offices, right?

Apparently it wasn't. "Excuse me," Ares asked some kind of secretary sitting at a desk. "Can you direct me to Ms...I don't know, she probably goes by Tina or Minnie or something like that? Really smart and mysterious and probably in charge of everything?"

A few policemen ran up behind him and started to open fire. Without even looking at them, Ares chucked a spear backwards and somehow managed to impale all three of them at once. The secretary stared at him, eyes wide with horror.

"Damn. I didn't mean to get you all frazzled. Uh, look. Two Medals of Honor! I'm a vet! Patriotic, trustworthy! Ms. Tina or Minnie or something? Really smart and important? Please?"

"Uh..." The secretary looked terrified, but at least it was the sort of terror that scared her into talking. "Uh, you mean the CEO? Ms. Athena?"

"*Really?* She's the fucking Goddess of Wisdom And Intelligence And Cleverness and she couldn't get a better pseudonym than 'Ms. Athena'? Whatever. Where is she?"

Another elevator ride and a few more cops later, Ares found himself breaking down the door of the CEO's office.

"Hey," said Ares. "Long time, no see."

"Can't imagine why," said Athena.

"Look, I'll be blunt," said Ares. "I came here to get the golden apple. Give me that and we're square. I'll go away. I'll even pay for the doors. And, uh...everything."

"What golden apple?"

"Oh, come on. I talked to Aphrodite the other day. She said there's a new golden apple about. She doesn't have it. And I talked to Hera. She doesn't have it. And I thought...who's been gunning for a golden apple ever since that whole mess with Troy? Who's the Goddess Of Wisdom And Intelligence And Cleverness and always gets everything she



wants? And then I remembered my wonderful older sister who I definitely don't think is the most annoying person ever, and who seems to be doing pretty well for herself. And I thought maybe I should come pay you a visit. Great water, by the way. I tried some on my way here."

"Fact is," said Athena, "I don't have any golden apples."

"Oh, lay off it, we both know you've got the damn apple. Give it to me or else I'll smash this place up however much it takes to find it."

About a dozen SWAT officers burst into the office. "Ms. Athena! There's an intruder in the building!"

"It's taken care of," said Athena. "Go off and have a nice day."

The SWAT team left.

"They believe you?" asked Ares, who was about seven feet tall, dressed in Trojan War vintage armor, carrying a huge bronze spear still covered in blood, and clearly visible.

"I've...put a glamour upon myself," said Athena. "It helps a lot, working with mortals. As long as I'm around, nobody notices anything unusual."

"And you didn't even want their help?" asked Ares. "Even though you're alone, with your younger brother, who happens to be unbeatable in combat?"

Athena laughed. "Unbeatable? Ares, you have *no idea* what you've just walked into. I understand Hermes has figured it out, which means I'll have to take care of him sooner rather than later. But you? You waltz in here, expecting me to be a pushover? Let me show you the tiniest taste of what I can do."

She opened the window. She stretched out her hand. A bolt of lightning arced from her fingers, struck the street below.

"Lightning?" asked Ares. "But...only Dad could call lightning!"

"Not anymore," said Athena. "Come on, Ares. You want to fight? Let's fight."

Ares threw his spear. It stopped in midair, like it had hit an invisible wall. Then it turned, flew back at him, coiled around like a snake, tied him down. "Hey!" he protested. "Hey! That's not fair!"

"I'm so glad you came," said Athena. "I needed a test subject. To see if my powers were really as strong as I hoped. What's the hardest thing in the world, Ares? *Binding a god*. Only ever accomplished twice in history. The Titans. Prometheus. Both times, by the power of Zeus and all the other gods combined. Do I dare attempt such a thing alone? I believe I do."

The lights darkened. The air began to stir. Lightning arced back and forth across the room. A secretary opened the door, saw the chaos, said "Oh, looks like you're busy," closed the door, and walked out. Time seemed to stop.

There was a rush, a whistle, and a thud, and then Ares wasn't in the world anymore.

## 8. Prometheus

"Are we there yet?" asked Heracles.

"When we are there," said Hermes, "I promise I will tell you."

"It's just that I was wondering," said Heracles, "whether we were there."

"There are," said Hermes, "certain games mortals play, in which a necessary prerequisite is to create your own hero character. And in some of those games, you get a certain amount of points, which you are allowed to allocate either to intelligence or to strength, so that the smarter you are, the weaker you must be, and vice versa. And I notice, Heracles, that you are the strongest man who has ever existed. Do you know what that implies?"

"It implies that I'm very strong," said Heracles. "But also, I was wondering – are we there yet?"

Hermes sighed. They were in the former Soviet Republic of Georgia driving down a dirt road in a narrow Caucasus mountain pass. It would have been unpleasant for several reasons even without his companion's endless whining. Still, he was feeling just a little bit euphoric.

One week ago, Ares had attacked Athena, raving about golden apples, and then...nothing. He had disappeared. He'd asked his girlfriend Tyche to find him. Tyche was the goddess of luck – a nice catch, if you ran a hedge fund. She could find anything. But she couldn't find Ares. He

wasn't in the world. There was only one other place he could be.

Tartarus. The Pit. The Abyss. The place beyond space where those removed from the world languished in darkness for eternity.

He'd gotten on the first flight to Memphis, shaken his father awake. Drunk as he was, Zeus had understood immediately. If Athena had gained enough power to open Tartarus, any one of them could be next. Their very souls were in danger.

And after a lot of arguing and screaming, Hermes had changed tactics and brought out some wine, and he had gotten Zeus very, very drunk. And whether it was one of those things, or another, or the combination of all of them, Zeus had divulged the key to Mt. Elbrus, the one that accessed the secret prison of Prometheus.

"We're here," Hermes told Heracles. He parked the car in a bed of gravel by the side of the road. They were in a narrow defile. Mt. Elbrus – the mortal one, the one visible to humans – loomed in front of them. In the rock face to their left, there was an opening just narrow enough to fit a single person at a time.

"Now remember," he said, as he turned on his flashlight and squeezed into the cave, "You're going to be wearing these ear plugs. You'll stare straight ahead, at my back, nowhere else. You've got the bottle of magic water in your pocket, and..."

"Why do I have to wear the earplugs?" asked Heracles.

"We've gone over this *a thousand times*," said Hermes. "You have to wear the earplugs because Prometheus knows *literally everything*. He knows what he has to say to scare you, or turn you against me, or make you kill yourself. So you're just going to wear earplugs and not listen to him."

"And why do I have to stare at your back?"

"Because if you stare at Prometheus, maybe he can influence you with some kind of facial expression or hand signal, and then you'll still end up killing yourself. Or killing me. Or dethroning Zeus and returning the universe to *primaeval* chaos. Or something too horrible to even think about."

"Hermes?"

"Yeah?"

"I don't think there's any hand signal that would make me dethrone Zeus and restore the universe to *primaeval* chaos."

Hermes sighed.

"Heracles, do you remember when I told you to meet me in the Caucasus Mountains of Georgia, and I specifically said *former Soviet Republic of*, and I specifically made you repeat back to me 'former Soviet Republic of', and a few hours later I got a call from Atlanta International Airport asking me where I was?"

"Yeah."

"So consider the possibility, however remote, that *Prometheus might be smarter than you.*"

"Oh," said Heracles. "I guess I hadn't thought of that."

They pushed on through the cave, winding around huge stalagmites, stepping over pools with pale eyeless fish.

"That's why," Hermes continued, "when we open the secret gate, I am going to talk to Prometheus, and you are going to wear the earplugs and stare at my back."

"But," asked Heracles, "what if Prometheus tells *you* to dethrone *primaeval* chaos or whatever?"

"Excellent question," said Hermes, "That's why I brought *you*. I am going to go forth and talk to Prometheus. I have here a cell phone which is programmed to accept exactly one hundred characters of input. When Prometheus tells me how to defeat Athena, I will enter it into the cell phone. When I give you the signal, you will usher me back into this cave, away from Prometheus. And once we are in the cave, you will give me this vial of water from the River Lethe, which will cause me to forget everything that happened in the past eight hours."

"So I'm just here to...give you the water?" asked Heracles, confused.

"It's more complicated than that. If I show the slightest sign of *not* wanting to drink that vial of water, then it's your job to overpower me and force it down my throat, all without allowing me to communicate with you in any way. I trust that you will be able to manage that?"

"I'm very strong," said Heracles.

"And that," said Hermes, "is why we love you. There is one more thing I'm going to ask of you. After I've drunk the water from Lethe, but before I wake up, you need to read the message on the cell phone yourself and confirm that it looks like a strategy for defeating Athena and *not* like some other kind of message from Prometheus to the outside world, and *certainly not* like any other terms Prometheus has added to our bargain. *If* you see something that looks like a message from Prometheus or an extra term, I need you to smash the cell phone and drink this *second* vial of water from the River Lethe."

"Oh good," said Heracles. "I like smashing things and I like water."

"The only problem," said Hermes, "is that you are a couple of filaments short of a light bulb. So what I'm going to do is ask you to swear on the River Styx that you'll comply. You're half-god; that kind of oath is self-enforcing. As long as even the tiniest part of you remembers what you've sworn to do, it will be literally impossible to do otherwise."

"All right. I swear by river sticks that I'll do what you say."

"By the RIVER STYX!"

"I swear by the River Styx that I'll do what you say."

The cave briefly darkened, and there was a gust of icy wind that seemed to come from nowhere.

"Good. Now, put the earplugs in, and be quiet for just a second. I need to concentrate here."

He searched for a part of the cave wall that was just a little too smooth.

"Hermes?" asked Heracles.

"Yes?" asked Hermes.

Heracles said nothing.

"YES?" asked Hermes.

Heracles still said nothing. Hermes saw that he was wearing the earplugs.

“Hermes, if I have the earplugs in, how will I know if I’m being quiet?”

Hermes gave what he hoped was a reassuring-looking shrug, then went back to scanning the cave wall.

*There.*

A little too smooth, a little too pale. Hermes served part-time as God Of Magic, and he could *sense* something off about that part of the cave. He put his hand on it. Unnatural warmth. The key went here.

With a harpy-feather quill, in ink of ichor, Hermes wrote:

D E T E R  
E X I L E  
T I T A N  
E L A T E  
R E N E W

The wall opened, and sunlight shown through.

They climbed out onto a rock promontory. The scene before them both was and wasn’t Mount Elbrus. The snow shone just a little bit brighter. The sunlight glittered just a little more. The shadows were a little bit darker.

And from under the mountain poked out a gigantic head, four titanic limbs, and bits of a huge torso. A giant, lying supine, pinned down by the peak. On the right half of the torso sat a great eagle, taking occasional bites of liver.

“Hello, Hermes,” said Prometheus.

*Well, no turning back now,* thought the god.

“Hello, Prometheus,” said Hermes. “With all due respect, I’m trying to minimize information flow with you, so I’d like you not to speak until I’ve finished explaining.” He paused, waiting for an objection, staring at Prometheus even though he knew he shouldn’t. He tried to read the Titan’s great bearded face. He looked surprisingly cheerful for a man pinned underneath a mountain having his liver eternally pecked out.

Finally, Prometheus nodded.

“We’ve got a problem, back in the world. Two thousand years ago, the

animal sacrifices stopped working. Eventually we figured out it had to do with the precession of the zodiac. The source of power went from rams to fish and now to water. Athena figured it out first, and now she's got a monopoly on the water industry. She's taken all of the divine power and become strong enough to send gods to Tartarus. The rest of us have some residual abilities, but otherwise we're barely beyond mortal level. We're at a loss, and we were hoping that, um, your special abilities might be able to help us. So we'd like to offer you a deal. In exchange for information that helps us defeat Athena, we'll, um, remove the eagle. There's a key...I don't have it here, but it can be used remotely. We'll do that. And say we're sorry about it. Really sorry."

That they would never free Prometheus went without saying, so Hermes didn't say it.

The Titan still looked alarmingly cheerful.

"You can, uh, talk now, if you want," said Hermes. "Though, maybe try to keep it short."

"I appreciate the apology," said Prometheus. "Really, I do. And I think we can deal with each other. Removing the eagle would be great, of course. But there's one more thing I've got to ask."

This was what he'd been afraid of. He was desperate. Prometheus knew it. Each additional term was a malignant seed that could grow into anything at all. He would have to hold fast to his plan and pray it was enough.

"Alas," said Hermes, "We predicted that you might say that, so we've taken some measures to precommit not to change any of our terms. In particular, I have sworn by the River Styx – an oath which it is *literally impossible* for gods to break – that I will not accept any terms other than the ones I just mentioned. Also, once you give me your strategic advice, I will be writing down a very short hundred-character summary on this phone, which is programmed to accept no more than a hundred characters and will physically melt if any attempt is made to interfere with that programming. Then I will give a pre-determined hand signal to Heracles, who will escort myself and the phone back into the cave and the ordinary world and force-feed me a vial of water from the River Lethe so that any memory of our conversation beyond those hundred characters will be lost forever. Heracles will then read the cell phone and confirm that no extra terms have been added to the bargain. If he sees any, he will smash the cell phone and drink water from Lethe

himself. Heracles has himself sworn by the River Styx to comply with all of this.”

Prometheus looked thoughtful – and oh god, were there any three words in the English language scarier than those – and finally he said: “Let’s discuss my terms. After you agree to them, I’ll tell you how you are going to get around your oath, Heracles, Heracles’ oath, and the water of Lethe.”

Hermes sighed.

“My terms are: you’ll remove the eagle. *And* you’ll donate \$1503.15 to a charity called ‘Against Malaria Foundation’.”

“Oh no,” said Hermes. “Oh no oh no oh no. That is *exactly* the kind of thing I’m not going to do. You want me to take an action in the world? A *specific* action? With multiple bits of information? Oh no oh no oh no oh no there is *no way* you are going to get me to do that.”

Prometheus still looked cheerful. “Well then, Hermes, it was nice to chat. I guess you’ll be on your way.”

“Now hold on. You don’t want to take an option, presented at zero cost to you, that will get that eagle out of your liver forever and ever?”

“It’s not that I don’t want to. It’s that bargaining is a game of give-and-take. We both have things we want out of this interaction. The question is how far we’re going to go to get them. It’s a game of bluffing and counterbluffing. And unfortunately for you, I am the God Of Foresight, and happen to be omniscient. You are going to walk out of here in fifty-one minutes having agreed to my terms. All I am doing is speaking the complicated dance of words that inevitably gets you to that point.”

“I hate everything about this place so much,” said Hermes.

“And I am deeply sorry,” said Prometheus, *and he sounded sorry*, “but I do insist.”

“Why?” asked Hermes. “*What are you plotting?*”

“You know that I like humans. You remember, I gave them fire, so long ago. I still have a fond place in my heart for them, and malaria is a terrible disease, and I thought...”

“You’re omniscient, so you *know* I don’t believe that for a second. Try



again! What are you doing? What's next on your little list of plans? The humans live on Mount Olympus, and *we* have to worship *them*? The Fates accidentally snip their own fingers off and die of blood loss? I know you're up to some kind of unspeakable horror, the only question is *which one*?"

"Hermes," asked Prometheus, "has it ever occurred to you that I was out, in the world, for countless aeons before you imprisoned me here? If you're so afraid of what I can do or say with a single sentence, what do you think happened when I had millennia to tailor everything just the way I wanted it? Things are going well for me, aren't they? The gods have been brought low. Humans have never been doing better. Zeus thought he was so clever, giving them a box full of evils, but I selected every one of those evils eons beforehand. You know what was in that box, Hermes? *Things to make humanity stronger*. I gave them famine so they would invent agriculture. I gave them disease so they would invent medicine. I gave them war so they would smelt iron. And I left them hope, so that even in their darkest moments they would pull through and keep dreaming. Dream of putting all of those evils back in the box they came from and closing it forever. And they *will*. Do you know how many sentient species in the multiverse developed an industrial base, liberal democracy, and human rights without killing themselves or collapsing into barbarism, Hermes? The number is *one*. One sentient species. *Mine*."

"Don't tell me that getting stuck under Mt. Elbrus with an eagle eating your liver was all part of the plan."

"You don't think so? Hermes, I am *vast*. I comprise universes. In my mind is every branch of possibility-space that ever will be or could have been. What's the point of going outside, when the outside is all inside of me? I set up the world how I wanted it, ensured it would go the right direction, and then retired somewhere quiet, somewhere with space to think."

"But *the eagle*?"

"Okay, I admit I kind of dropped the ball on that one. The Fates are petty little bitches."

"So now what?"

"So now you remove the eagle, and I'm happy, and you're happy."

"Except for this malaria thing."

"Think of that as my little joke."

"Your *joke*. You expect me to believe that?"

"I expect you to realize you have no other option, accept my proposal, and leave this place in another forty-six minutes."

"Fuck you."

"Then I expect you to go back, defeat Athena, and restore the power of the gods. Except that you will find it doesn't go quite as far as it used to. Lightning is a cheap trick compared to nuclear weapons. Flying chariots are a little underwhelming when they share the skies with supersonic jets. You will find that your accustomed roles within human society work well for you. You will find yourself using your power not to dominate human society, but to shepherd it along its path. They are entering a very dangerous time now. *Very* dangerous. They need divine intervention, but not from above. They need gods who live disguised among them, and need them as much as they need you, and shepherd them. Athena cannot do it alone, not properly, so I will give you what you need to stop her. I have foreseen your path, and I know you rise to the occasion. So go, with my blessing, and serve Man."

"Fuck you, just tell me what message I'm sending."

"A hundred characters? Hmmm. ATH CAN'T HOLD POWER IN BODY. NEEDS FOCUS, PROBABLY IDOL. DONATE \$1503.15 TO AMF, THEN DESTROY IDOL."

Hermes typed it onto his cell phone. "And how are we going to get around all of the oaths and precautions?"

"Tell me, Hermes, when did you swear your oath by the River Styx?"

"Three days ago."

"Good. If you don't remember swearing the oath, you can't be bound by it. So you need to overdose on Lethe-water, enough to erase three days from your mind. I imagine you've been planning this escapade for a while, so when you wake up in a cave in the Caucasus with a cell phone bearing a message, you'll be able to piece together what happened. The message is framed such that the donation looks like part of the plan, so Heracles won't notice anything amiss. You'll probably figure it out, but

you're an honorable god and you'll feel compelled to stick to the bargain that you must have made with me. None of this breaks your current oath, which only says you must not carry out any of my terms, not that you must not mention them in your message. Overdosing on Lethe-water is only a suggestion of mine, not itself a term necessary to procure my agreement, so it should not be prohibited."

Hermes sighed with relief. "Your plan isn't going to work, Prometheus. Heracles is going to force-feed me the Lethe water before taking out his earplugs, so I can't communicate with him and ask him to change the dose. And even if I could, I only brought eight hours' worth of Lethe water anyway. Sixteen if you count Heracles' vial."

"There are two ways to increase the effect of a drug," said Prometheus. "You can increase the dose. Or you can decrease the rate at which metabolism eliminates it from the body. Since our dose of Lethe water is limited, we're going to go with the second. Heracles will give you exactly the amount of Lethe water you told him, but your body will fail to process it as usual, and it will have ten times the expected effect, causing you to forget your oath and be able to accept my amended terms when you find them on your phone."

"How are you going to change my metabolism?"

"Most drugs are metabolized by the liver. By manipulating liver size, we can tailor the metabolic rate to any level that we want."

"*Manipulating liver size?*" Hermes didn't like the sound of this.

"Yes. Hepatectomy is a very safe, commonplace surgery. But even if it weren't, you would have nothing to fear. Surgeons' success rates correlate with their number of hours of experience. And we have the most experienced liver removal specialist in the multiverse right here on Mt. Elbrus."

"Oh no," said Hermes. "You're not...oh no oh no oh *no*."

The eagle gave a voracious shriek.

## 9. Everybody

The pantheon met in the Pantheon, as was tradition. Hermes and his girlfriend Tyche came first; the God Of Commerce took a seat in the center just below the oculus, as the Goddess Of Fortune ushered away confused tourists. Gradually the rest trickled in. Poseidon, tracking

water wherever he stepped. Apollo, dapper as ever in a tweed coat and bowtie, and Artemis, dressed in camo. Nike, dressed like she had just come from the gym. And Dionysus, in his stained Sigma Alpha Epsilon sweatshirt. He caught Hermes' eye. "HEEEEEEEY, BRO!" he said. "HOW'S IT HANGING?" Hermes just ignored him.

Hades was over near the entrance, talking to Aphrodite. "Hey Aph," he said affably. "Want a pomegranate?"

Aphrodite's eyes narrowed. "Is it one of your magical pomegranates that makes anyone who eats it obligated to become your wife?"

"Uh..." said Hades, shifting his eyes back and forth. "It...*might* not be?"

"I'll pass," said Aphrodite.

The missing stood out by their absence. Ares was not with them, for obvious reasons. Athena had obviously not been invited to the conspiracy against her. And Zeus, King Of The Gods, was nowhere to be seen. Hermes had begged and cajoled, but to no effect; he was still angry at having given up Prometheus' key when drunk. "This is our last chance," said Hermes, "the most important thing you'll ever do." But Zeus was having none of it. He had (he said in a half-drunken stupor) just met with a Hollywood talent scout, who had told him that he was perfect to star in a movie about the Trojan War. He was going to strike it big and become a celebrity and then open up his own water company, and Athena would never know what hit her. That was his plan and he was sticking to it.

Well, he would work with what he had.

"My fellow gods!" he announced, and everyone turned to look at him.

"By now you've heard the news. Athena has used her bottled-water monopoly to seize divine power for herself. She has opened the gates to Tartarus; none of us are safe. If we ever want to be more than the second-rate has-beens we are now, we need to stop her. I know how we're going to do it."

Some gasps. Apollo looked thoughtful. "WOOOOOOOOOO!" shouted Dionysus. "YOU GO, HERMES!"

"Athena's collected so much power that she can't hold it all herself," he said. He'd gone over all this with Apollo, a few days after waking up in the cave with a terrible headache; the two of them had managed to

expand Prometheus' cryptic message into an actionable plan. He was very suspicious that a seemingly unrelated order to donate a very specific sum of money was a command of Prometheus' that had slipped past his security, but he wasn't sure how, and he wasn't going to take the risk. He'd made the donation – now the rest was up to them.

"She can't hold it all herself," he continued, "so she needs some kind of supplementary focus. Sympathetic magic. Like calls out to like. She needs an idol. And not just any idol. It would have to be something really special, an idol of Athena that generations of mortals have identified with the deepest secrets of her power. The history books list two such idols. One, the giant statue in the Parthenon. That's destroyed. Two, the Palladium. It was there in Troy. It was there in Rome. Now we think it's in the Athena Mineral Water headquarters. Why? Because that kind of power would stand out like a sore thumb *unless* it was outshone by the presence of another immortal. Athena sure wouldn't trust anyone else with it, so she's got it herself. It must be hollow. The divine energy must be stored inside of it. If we can find and destroy it, then Athena loses her power and it flows into alternate conduits. Like us. In other words, we get our magic back."

"WOOOOOOOO!" shouted Dionysus.

"Please refrain from cheering until the entire speech is over," said Hermes. "Anyway, here's my plan. We're going to split in two. One group is going to be the powerhouses. Apollo, Artemis, Hades, Poseidon, Aphrodite, Dionysus. You're all strong, skilled with weapons, or both. You're going to smash things, create a distraction. You're going to avoid confronting Athena directly, because Ares already showed us how that turns out. While my sister is chasing after you, the second group slips in. That's me and Tyche. Hades has given me his helm of invisibility, which should be enough power to hide both of us from view. Tyche's the Goddess Of Fortune. She can find anything. And I'm the God Of Thieves. I can break into anywhere. She'll lead me straight to the Palladium, I'll nab it, break the thing in two, and then we're home free. Any questions? Comments?"

"It's a good plan," said Apollo, nodding his head.

"WOOOOOOOOOO!" shouted Dionysus.

"Just do it!" agreed Nike.

And before they could change their mind, Hermes teleported the lot of

them to the lobby of Athena Mineral Water.

They appeared in a flash of light. People stepped back, shocked. The teleportation was strange enough. But Poseidon was still holding his golden trident. Hades was surrounded by some kind of miasma. And Aphrodite was buck naked. They didn't exactly blend in.

*"Distraction!"* whispered Hermes, just before taking Tyche's hand and vanishing from view.

"Uh," said Dionysus. "IS EVERYONE HERE READY TO PAAAAAAAAAARTY?"

"It'll do," muttered Hermes.

He and Tyche made their way up side staircases. Athena's aura wouldn't be able to hide the Palladium at any kind of a distance. It had to be really close to her office. They came to the CEO suite by a back entrance, then pressed themselves against a wall as they saw "Ms. Athena" walk by, talking on a cell phone. "Yeah," she was saying unconvincingly, "that does sound weird. No, no idea what's going on. I'll be down to investigate. Thanks for the tip."

When she was out of view, they snuck into her office. It looked very normal. A few potted plants. A Bosses' Day card. Some gold-plated "Female Entrepreneur Visionary Leadership" awards. A wall full of framed news articles "ATHENA MINERAL WATER BOASTS GODLIKE PROFITS", "BEHIND THE STARTUP CHANGING HOW THE WORLD DRINKS". A bottle of product on her desk, either for display or hydration. No idols.

"Cold," said Tyche.

"Cold?" asked Hermes.

"If it were here, I would know. It's not here."

"Well, let's check nearby."

They checked Athena's secretary's office. They checked Athena's closet. They checked the office of the Assistant To The CEO, the Director Of The Office Of The CEO. They checked the executive bathroom. No idols.

"Super cold," said Tyche. "Hermes, it's nowhere *near* here."

"Fuck," said Hermes. "We've got to go. Find the others and tell them to disengage, before it's too late."

They ran down the stairs until they reached the lobby. It was in a state of disarray. Chairs and potted plants overturned. Three parallel lines on the big LCD screen that looked like they had been scratched by a trident. There was a magic silver arrow sticking out of one wall. No gods.

"Okay," said Tyche. "They've been here. They must be retreating."

They ran outside. A trail of water on the sidewalk suggested the route taken by Poseidon. The parking garage. He could see flashes of lightning on the lower levels. He wouldn't be able to get through that way. He channeled all his power into his winged sandals, and he and Tyche lurched into the air, coming to rest on the top floor of the structure. He ran down and almost bumped into Aphrodite.

"Hey, sexy," she said. "What's going on?"

He could see the others now. Hades and Poseidon were defending the road leading to the lower level. Athena was below, hurling lightning at them. They were in retreat. Artemis stood on the bed of a pickup truck, taking shots with her magic arrows. Nike was with her, pointing out targets. Dioynsus seemed to be passed out on the concrete, and Aphrodite and Apollo were holding up the rear.

"We've got to get out of here," Hermes told the two of them. "I was wrong. The Palladium's not in the building."

A lightning bolt shattered one of the big concrete pillars. "You dare stand against me?" shouted Athena. "For too long, I've played second-fiddle to lesser deities like yourselves! When I awoke a few centuries ago, it removed the last doubt from my mind. Everything I predicted was true. Nowadays, who cares about agriculture? Who cares about the sea? Who even *believes* in the Underworld? The sun is a giant ball of gas. The moon is a giant ball of rock. There's only one thing that matters today, and that's intellect! And how better to enshrine the triumph of intellect over human affairs, then to have the Goddess Of Wisdom destroy the lesser gods and become a pantheon unto herself? People these days want monotheism, and I'm going to give it to them!"

"You're wrong!" Apollo stepped into the fray. "Intellect is important, yes! You deserve to be honored, and nobody will take that away from

you! But without Reason to guide it, intellect becomes monstrous. Without Art, and Music, and Poetry, intellect becomes sterile. And without Healing, intellect becomes divorced from compassion.”

“AND THE SEA IS REALLY GREAT TOO,” added Poseidon.

Athena rose into the air, crackling with energy. “*For now*,” she said. “*For now*, intellect runs on puny mortal minds that will get all *sad* if they don’t have their music and their beachfront houses. But that was a *mistake*, Apollo. We didn’t *want* humans. We wanted apes just barely smart enough to sacrifice some rams to us and be properly grateful. Then Prometheus got involved, and everything went wrong. I’m going to fix his mistake. Genetic engineering, robotics, so many different options. Create minds that don’t need art, that don’t waste their time with music or lolling at the beach.” She looked at Artemis. “Destroy the forests and pave them over with factories.” She looked at Dionysus. “Replace partying with study and productive work.” She looked at Aphrodite. “Replace the vagaries of love with rational breeding based on genetic potential.” She looked at Hades. “Machines, that were never alive and so can never die.” She looked at Poseidon. “Tame the sea for tidal power – ”

“YOU’RE TOUCHING THE SEA OVER MY DEAD BODY!” Poseidon shouted, and rushed at her with his trident.

“We’ve got to get out of here,” Hermes whispered to Apollo. “Get together as many as you can. We’re going to make a run for it.”

“She’s blocking the only exit,” Apollo said. “Where do we go?”

“To the roof! I can carry some of you with my wings. The rest will have to jump.”

A few other gods had gotten the gist of the conversation, started running to the top of the parking garage. There was a loud thud, then the sound of sparks. It didn’t sound good.

“I don’t understand,” said Apollo. “How could the Palladium not be in the tower?”

“I don’t know!” Hermes protested. “If it wasn’t disguised by a god’s aura...”

“Then ipso facto it must be with some other god,” said Apollo. “Who are we missing? Demeter?”



"Demeter? She *hates* Athena, thinks her bottled water is destroying the environment."

There was another crash. Apollo, Tyche, and Hermes made it onto the roof of the parking structure. They couldn't tell how many other gods were still following.

"Okay then, Hera?"

"I checked. There's a court record of all of her property, after the divorce with Zeus. Nothing about any idols. And she doesn't like Athena either, something something Trojan something. *Nobody* likes Athena. And seriously, who's going to take a magic idol and just say 'sure, I'll hold on to this, no further questions'."

"Wait," said Apollo.

Hermes waited.

"Does it have to be a *god* god? What about a demigod? An immortal human?"

"Um. In theory it could work. But it would be such a small effect. They'd have to stay right by the idol, day in, day out, or it wouldn't be disguised at all."

Apollo was already taking out his cell phone. "Dory, Dory, *please pick up.*"

Nike ran onto the roof of the parking garage. There was a big gash down one of her arms. "She's right behind us!" she told them. "We've got to go!"

"Wait," said Apollo. "Dory, *pick up the phone.*"

There was another crash. The parking structure started to wobble.

Apollo heard a noise from the other side of the phone, but no greeting. Right. She wouldn't open the conversation.

"Pandora?" he asked. "Are you there?"

"Hi Apollo," came her voice.

"Dory," said Apollo. "That statue on your desk, the one of the woman in

armor. I need you to take it and smash it, really hard.”

“Okay,” said Pandora. There was a brief pause. “Done.”

“Done? Did you break the statue?”

“No, it’s very hard, it doesn’t seem to have broken.”

“Fuck fuck fuck fuck *fuck*,” said Apollo.

Of all people, Dionysus managed to crawl his way to the top of the structure. “It’s getting *really gnarly* down there,” he announced before collapsing back into unconsciousness.

“Okay. I need you to feel along the sides of the statue. Is there any kind of switch, anything that’s going to get it to release the power that it’s stored?”

A brief pause. “There’s...a knob and a hinge.”

“Okay, Pandora. I need you to turn the knob and open the statue.”

“Apollo, *I don’t open things.*”

“Look, Dory, I don’t ask you for much. I’ve known you for I can’t even remember how many centuries, and I know things are hard for you, I’ve respected that. But Dory, *you need to open that statue.*”

“You *know* I don’t open things!”

The last few gods ran onto the top of the parking structure. Just behind them floated Athena, her eyes jet black, her whole body crackling with electricity. “There’s nowhere left to run,” she taunted them. “You’re *all* going to Tartarus now. Any last words?”

“Uh,” said Hades, “want a pomegranate?”

Athena held her hands forth. The sky darkened. The air seemed to stir.

“Dory, you made a mistake once, and it was really bad, I’m not denying that, but you told me yourself, the one thing you did right was keep Hope. I need you to be hopeful now. I need you to hope that someday, somebody, us, humans, somebody we’re not even considering, might be able to reverse what you did. Might be able to put those evils back in the box. I need you to think that that’s possible. But not going to

happen without our help. Please, Pandora, trust me on this. And what I need you to do right now is *open that statue*."

Lightning arced back and forth across the heavens. Time seemed to stop.

Then there was a loud *pop*.

#### 10. Zeus

Zeus had come onto stage believing it was an audition for a big-budget film about the Trojan War. It wasn't. Out ran a young woman, her face streaked with tears. "You said you loved me!" she said. "We had a child together! And then you...you disappeared!"

"Hey now," said Zeus. "What's this now? Who are you? Whaddyatakinabout?"

"Don't you recognize me?" sobbed the woman. "I'm Sara! From Biloxi! We met in '98! Oh god! You don't even *remember* me. You've probably abandoned with so many women that you don't even *remember* them! How many were there after me? Ten? A hundred?"

"Hang on now," said Zeus. "I ain't the kind of guy who hooks up with no hundred women."

"In fact," said Alice DiScorria, walking on to stage. "He is precisely that kind of guy. If you don't believe me, believe Amy. And Bethany. And Billy Rae. And Caroline. And Connie."

As she said each name, each woman came on to the stage.

"Dana. Daria. Dina..."

Some of them were crying. Some of them looked lost. Some of them had steely determination in their eyes.

"...Jackie. Jessica. Jennifer. Jun-Li..."

"Nah, yer just messin' with me now. What is this, some kinda trap? I want a lawyer, lady. I got my rights!"

"...Samantha. Sara. Sarah. Shaniqua. Susan..."

The stage was almost full now.

"You sayin' I slept with all these women? I didn't sleep with none of em. I want my lawyer, right now."

"Actually," said Alice, "we're not saying these are the women you slept with. We're saying these are the women you *slept with, had children with, and then abandoned without paying child support.*"

"That's a goddanged lie," said Zeus. "I ain't even got no children."

"Zeus is telling us that he 'ain't even got no children'," Alice told her viewers. "Alas, we have two hundred and five people in our studio audience today who think otherwise. Would you please stand up? Aaron. Adam. Althea. Ava. Bethany Junior. Berenice." She realized she was starting to lose her audience's attention. "And all the rest."

Two hundred five members of the studio audience, ranging from toddlers to adults, stood up. They were all unusually large, and many of the men had big, flowing beards.

"This is goddanged lies, is what it is!" shouted Zeus. "None of these people ain't my children, and that's the truth!"

"Zeus says that none of these people are his children," said Alice. "We ran paternity tests for every single one of them before the show. Let's see what they say." She took out a big stack of manila envelopes, opened the first one. "Aaron...Zeus *is* the father! Adam...Zeus *is* the father! Althea...Zeus *is* the father!"

One of the women on stage finally lost it, grabbed a folding chair, and swung at Zeus. He deflected the blow easily, then pushed her back, just a little too rough. Suddenly the stage had become a brawl, one hundred ninety enraged women against one underpowered god.

"Ava...Zeus *is* the father! Bethany Junior...Zeus *is* the father! Berenice... Zeus *is* the father! Chou-yang...Zeus *is* the father! Cleo...Zeus *is* the father!"

The brawl on stage was getting really bad now. A few women were down for the count. Zeus was bleeding all over his face. Some of the staff started to wonder whether they should override Alice and call security.

"Demetrius...Zeus *is* the father! Delia...Zeus *is* the father! Darragh...Zeus *is* the father! Dominique...Zeus *is* the father!"

One of the women had gotten hold of Zeus hair and was holding him, pinned, while another was slapping his face. Zeus tried to kick, but ended up losing his balance. Security guards were pushing through the crowd of women, who were resisting their efforts.

“Edna...Zeus *is* the father! Elena...Zeus *is*...”

Then there was a loud popping sound that seemed to come from everywhere and nowhere. And then Zeus effortlessly pushed the crowd of women away from him. For a second, he looked confused by his own strength. He stared at his newly-rippling muscles, looked down at the ground as if he couldn’t quite believe how tall he was. Nobody moved.

Then he shouted, “DAMN RIGHT I’M YOUR FATHER! I’M ALL YER FATHERS. I AM ZEUS OLYMPIOS, KING OF THE GODS, CLOUD-GATHERER, THUNDERER, MIGHTIEST OF IMMORTALS! AND IIIII’M BAAAAAAAAAAAAACK.”

The crackle of lightning filled the halls, knocked over the security guards. The audience stampeded to the exits. Women started to run off the stage.

“I AM ZEUS, KING OF GODS AND MEN. AND I’M TURNING YOU ALL INTO ANIMALS!”

Amy became an anteater. Bethany became a duck. Billy Rae became a tree shrew. Caroline became an otter. He turned Connie into a rattlesnake and Dana into a panther, Daria into a Komodo dragon and Dina into a bat. It was over in minutes. Everyone had either escaped or been transformed, besides Zeus and the hostess.

“Yer still here,” said Zeus, surprised.

“I am everywhere,” said Eris Discordia.

“What *happened*?” asked Zeus.

“The same thing that happens everywhere, all the time” said Eris. “People had conflicting aims. They struggled for power. Some won, others lost. The winners will celebrate, thinking their victory irreversible, and the losers will mourn, plotting their vengeance. And around them, the world changes irreversibly, in ways none of them predicted.”

“Huh,” said Zeus.

"In a few hours, news will come that a sudden electrical storm struck the set of my show, unfortunately causing the cameras to stop recording. Some people will be missing, casualties of the disaster. Others will say all sorts of strange things and be ignored. There will be lots of fights about it, and they'll all call each other things like 'sheeple' and 'denialist' and 'moron'. It will be wonderful."

"Huh," said Zeus.

"In the meantime, the studio is ruined. I suppose I will have to find a new job. Can you believe it, Zeus? In the old days, I was barred from every city and temple, driven out into the wilderness as an enemy of mankind. Now they *pay* me to cause discord. What a world!"

"It's...somethin'," said Zeus

"And it's all thanks to people like you," said Eris. "So before we part ways again, before the poets end their songs and the next myth begins, please accept a token of appreciation. From me, to you."

In her hand appeared a shining golden apple.

Epilogue: Trump

"Yeah," real estate mogul Donald Trump said into the phone. "Look, I gotta go, Carl. I gotta be at a gala tonight – yeah, the one for the American Eagle Museum. Terrible stuff, Carl, just terrible. Gotta go."

He hung up. It really was terrible stuff. Just a year ago, an anti-malaria charity had funded a grant that happened to precisely match its yearly budget surplus. The research had borne fruit – a new insecticide, kind of a super-DDT without the environmental damages. DDT, of course, was famous for killing endangered birds, but they thought they'd tested it properly this time, dozens of different bird species, no problems at all. So they'd deployed it worldwide, and malaria rates had plummeted. Only they hadn't tested the environmental consequences as well as they'd thought. 99% of bird species escaped unscathed – but every eagle in the world had died an unimaginably agonizing death. The whole situation was so strange that the FBI launched an investigation – then closed it a few weeks later for absence of motive. Who could possibly hate eagles that much?

He put on his suit and tie, and was just about ready to head out when a beam of radiant light appeared in the middle of his room and coalesced

into three women.

"Greetings to you, Mr. Trump," said the oldest. "I am Hera, Queen of the Gods. These are my colleagues Aphrodite and Athena. You are the man who runs the Miss Universe beauty contest, yes?"

He took a step back, dazzled by her radiance. "Um...yes."

"Zeus, God of Thunder, recently came into possession of a golden apple. Then a second golden apple, found when searching a convent in Ukraine that had become a center of, ah, certain recent events. There are three of us and only two apples, so we petitioned Zeus to determine how they might be divided up. He replied that traditionally they go to the fairest, and so urged us to seek the foremost mortal judge of female beauty and implore his assistance. If you truly run beauty pageants for the entire universe, then you are the judge that we seek."

Then she spoke differently, directly into his mind. *And as an added incentive, if you choose me, I swear by the River Styx that I will make you the most powerful man in the world.*

He'd barely had time to process the thought when Aphrodite stared at him, and a voice like music touched his consciousness, saying *Pick me, and I swear by the River Styx that I will give you any woman you desire. Models, supermodels, they can all be yours.*

Then a third voice, lower, more dispassionate, and he heard Athena say *Select me as most beautiful, and I swear by the River Styx that I will grant you wisdom, prudence, and the intelligence to make the right decision under any circumstance.*

Donald Trump just stared.

"Well?" asked Hera.

"He's not answering!" said Athena.

"Waaaaait a second," said Aphrodite. "Athena, did you ever turn off that glamour you had, that made mortals around you unable to process the presence of gods?"

"How was I supposed to turn that off?" asked Athena. "It took the whole divine power of the universe to create that, and then you took that away from me. Now I'm just a goddess like anyone else, doing – " she spat "community service to make up for past misdeeds. And it's not

even like I didn't help you guys bring Ares back."

"So what you're saying," interrupted Hera, "is that he can't even see us?"

"He can *see* us," said Athena. "He just can't comprehend that anything unusual might be going on," said Athena.

Finally, Donald Trump rubbed his eyes, and said "I got no idea who any of you are, or why you're in my apartment, but – " he pointed at Aphrodite and Hera "you and you are *smokin'*. You," he said, pointing to Athena and frowning, "look like a dyke in that armor. Seriously, get a makeover."

Then he walked out the door.

"Huh," said Hera.

"Too bad," Aphrodite told Athena. "Just goes to show that brains aren't everything."

"Yes, well," said the Goddess of Wisdom, a little too haughtily to be anything but compensation, "I'm just glad we finally made it through one of those without causing any unfortunate side effects for world history."

"Yes," said Hera. "I suppose we did. There's a first time for everything."

*[Acknowledgments: the idea of Zeus on a trashy TV show comes from [this Tumblr post](#). Ideas for the Prometheus character came from [AI boxing](#) and [The Wise Man's Fear](#). The first two word squares come from [here](#) and [here](#).]*



# Atreus, Atreus, And Pelides: Attorneys At Law

Paris of Troy came in secret to Sparta and abducted Helen, the most beautiful woman in the world. When her husband, King Menelaus, learned of the crime, he did what any red-blooded Achaean warrior would: he filed a lawsuit.

Mighty and dreadful were the ranks of his lawyers, for he ransacked all the vast treasuries of golden Sparta for attorneys' fees. To lead these hosts, he called upon great Agamemnon, son of Atreus, prince of the Bar Association of all Greece. So heavy was his briefcase that ten normal men could not lift it; so strong his glasses that they struck lesser men blind. Behind him marched the ten thousand lawyers of Mycenae, intelligent men all, each bearing gold-plated pens and wallets of real leather.

From Ithaka came wily Odysseus the divorce lawyer, who read law briefs as effortlessly as other men read newspapers. Close behind followed Diomedes, master of the closing argument, and mighty Ajax, whose fees could bankrupt entire villages. Next there arrived ancient Nestor and the lawyers of Pylos, clad in Arcadian polyester and fat with take-out meals.

Last of all came god-like Achilles, son of Thetis the sea-nymph. Proudly he came, clad in the custom-tailored suit fashioned by Hephaestus, craftsman of the gods, and upon his tie were painted scenes from the all great court cases of history. Here one could see Plessy debating Fergusen, and there, surrounded by a chorus of monkeys, Clarence Darrow gave his closing argument against William Jennings Bryan. Upon its bottom was the fearsome face of Rhadamanthus, judge of the Underworld, glaring balefully at the wincing image of O.J. Simpson.

By his side came his junior partner, Patroclus. Never before in judicial history have two lawyers been as inseparable as Achilles and Patroclus, nor shall ever they be again. Whenever Achilles argued a case, there sat Patroclus in the audience box, cheering him on, and whenever Patroclus argued a case, Achilles would stay up long into the night, helping him practice and prepare. As inseparable were they as thunder and lightning, as fire and smoke, as night and darkness.

When Priam, King of Troy, learned of the host gathered under the banners of Agamemnon, he turned pale with fear. Well he knew of the rage of Menelaus, of the compensatory damages he would demand, and of the additional punitive damages he would exact. Mighty was the wealth of Troy, jewels and coronets fashioned by gods and heroes, but all to naught would it come if Agamemnon's attorneys won their suit. And he begged of his son Paris that he return Helen to Menelaus, and agree to settle the matter out of court, lest the mighty walls of Troy be torn down and sold for scrap to pay for the Spartan king's emotional distress.

In that hour, almost did Paris turn away from the lawsuit, and petition for a pre-trial settlement. But Pallas Athena, whose bore a grudge ancient and implacable against Troy, hardened his heart, and a great resolve grew inside him to let the suit go to trial. And so he called upon all of the mighty attorneys of Ilium to build a case for the defense.

First he hired goddess-born Aeneas, son of Aphrodite, who could make juries swoon merely by winking at them, and Helenus the oracle, who knew what witnesses would say before they were even called to the stand. Penthesilea he hired, the Amazon lawyer who had cut off her left breast in order to better hold a briefcase, and Memnon, from deepest Ethiopia, an expert in civil rights suits. And to lead the defense team, he hired mighty Hector, driver of sports cars, whose Ferrari was as red as the blood of the rams sacrificed on the heights of Mount Ida, and faster than swift-winged Zephyrus.

When Agamemnon heard the news that Paris had hired mighty Hector's law firm, he knew that there would be no out-of-court settlement. So he rented from the men of Mycenae a thousand great corporate jets, to fly over the Aegean and bring his hosts to Troy. After many trials the hosts of the Achaeans at last reached the airport of Ilium, and from there headed to the great courtroom that stood by the banks of the Simois. Like to the courtrooms of Olympus it stood, its great stone blocks hewed by Heracles in days of old. Tall and strait were its fluted columns, like oaks as they rustle in the sacred groves of Dodona, and as comfy were its seats as the beds of the sea-nymphs in the grottos of Amphitrite. When a lawyer spoke, the microphones magnified his voice to sound like the bellowing of bulls, and when he was silent, a terrible hush would descend, like the quietude of the halls of Hades.

For a lawsuit of such import, Minos himself had come as judge. Two great Cyclopes had arisen from Tartarus as bailiffs, and the Fates, ever

spinning their cloth, were the court clerks. One of the Cyclopes handed Minos his gavel, a thunderbolt fashioned in the smithies of Hephaestus, and so the trial began.

When Agamemnon arose to speak, so dreadful was his opening argument that the greater part of the Trojans turned to flee, as if their city had already been confiscated. So when Poseidon, the Maker of Earthquakes, strikes his trident into the deep; fish and seals flee in terror, and the ground itself shakes like a wounded thing; not otherwise did the opening arguments of Agamemnon shake the courtroom of Ilium. And when he had finished, the jury all stood as one man, ready and willing to pronounce Paris guilty of wrongful abduction.

But then Hector, driver of sports cars, rose to speak. And as he spoke, he accused the Achaeans of wasting the time of the courtroom, so obviously frivolous was their suit. The everlasting love between Helen and Paris he referenced, and the decision of Aphrodite, goddess of love, that Paris should have the most beautiful woman in the world as his wife. Even as he spoke, the jury conferred, deciding as one man that Paris was utterly innocent, that the Danaeans should not only return home to their shores but that the gold of Agamemnon should pay Paris' attorneys' fees, so frivolous his lawsuit. And when he had finished this, next he attacked the Achaeans' corporate jets, demanding to know whether they had the proper clearances to land in Trojan airspace, whether their pilots were properly trained, and more than all these, he attacked their safety certification. Upon hearing this, the Achaeans quaked with fear, knowing that at any moment their jets might be confiscated and themselves stranded in Troy without hope of return.

But before Minos could order the Greek jets confiscated, Achilles rose to speak. Much did the attorneys of Greece and Troy marvel at his suit, crafted by the gods, and at his tie, decorated as it was with the great court cases of history. But even more marvelled they at his savage objections, his terrifying points of order, his encyclopaedic knowledge of airline safety regulations. And with each section of the airline safety code he explained, Patroclus egged him on, until the Trojans fled the courtroom in fear, until sunset was upon them, and so ended the first day of the trial.

And in the Four Seasons' hotel, where the Greeks had made their camp, there was much rejoicing, and downing of great quantities of wine and spirits. But Calchas, the oracle, grew wary, and begged that the party might end and the Greeks get some rest for the days that were to come.

Still further they partied, until, even at the stroke of midnight, Agamemnon drunk with wine and victory started making out with Briseis, secretary to Achilles.

Then god-like Achilles waxed great in anger, and demanded an apology from Agamemnon. But Agamemnon, angry as he was at being upstaged by Achilles in the deliberations of the day, refused. And at that point, Achilles swore a mighty oath - that until Agamemnon gave him control of the prosecutorial team, he should argue no more, but sit in his room at the Four Seasons skulking and watching Pay-Per-View movies.

As the next day dawned, the motorcade of the rented cars of the Greek attorneys drove to the courtroom with heavy hearts. But the Trojans, seeing that their foe had lost its champion, redoubled their efforts. Goddess-born Aeneas called Aphrodite to the stand and established that she had given Paris permission to carry Helen away. Then swarthy Memnon played the race card, asking whether Paris was being persecuted for his Trojan ancestry, and Penthesilia established a history of marital strife between Menelaus and Helen. And far-shooting Apollo himself blessed the Trojans, so that each of their objections hit true, and he set a veil of confusion upon the Greek cross-examiners, whose words seemed like mere babble, and whose points the jury missed entirely.

As dusk fell, the Greeks stood on the verge of being kicked out of Troy entirely. They returned to their camp at the Four Seasons full of fear, and immediately Agamemnon rented out the conference room and held a meeting with wily Odysseus. The prince of Ithaca begged him to allow Achilles to lead the prosecution, but Agamemnon's heart was hard, and three times he placed a curse upon the son of Peleus, and upon the day he ever entered law school. Then Odysseus knew he would have to develop a plan on his own.

And so Odysseus dressed Patroclus up in the god-tailored suit of Achilles, and draped around him the tie of Achilles, and handed unto him business cards saying "Achilles, son of Peleus, Attorney at Law". And all to whom he gave these business cards believed him to be Achilles, and so the Trojan lawyers fled from the courtroom as he arrived. Inspired, Patroclus made many incisive points, and all the members of the jury and the audience marvelled at the might and the wisdom of Achilles.

But Hector alone was unfazed, and he stood and countered all of Patroclus' arguments. Then he attacked Patroclus himself, impugning

his honor, revealing that he had lied about his identity to the court, demanding that he be censured, no, cited for contempt of court! Zeus, king of gods and men, stood behind Hector and guided his words, and when he had finished speaking, Judge Minos decreed that it should so be, and Patroclus was hauled off to jail for contempt of court. Much was the weeping in the law firms of Skyros that day, and many the Myrmidons whose careers ended in disgrace.

Back in Troy, Hector was filled with dread, for he knew that Achilles would not let the incarceration of his junior partner pass. That night he had a vision that he was to die during the next day's procedures. He shared it with his wife, the beautiful Andromache, who merely laughed; for was he not Hector, the greatest lawyer in all Ilium? But seeing his face, she soon grew grave, and he made her promise that, should he perish, she was raise their child Astyanax to work hard so he might one day get into one of the great law schools and succeed him in his business. Having exacted this vow from his wife, he returned that morning to the court in his red Ferrari.

Also to the court drove Achilles, his rented black Porsche spewing a rain of sparks as his drive for vengeance spurred him forwards. That day, Achilles was unstoppable. He called as a character witness the nymph Oenone, who spoke of Paris' hard-hearted betrayal of her love. When the judge called for cross-examination, the Trojans cowered, none willing to approach the witness stand for fear of Achilles' wrath. At last, Hector arose and began to debate Achilles. Faster and faster their debate grew. Just as Hermes, winged messenger of the gods, flies from Olympus to Earth in the blink of an eye, not otherwise was the speed of these two lawyers as they debated Oenone's testimony. High above them, Zeus balanced their lives on a scale, and hung his head in sorrow as Achilles came out the victor. Just as the Trojan champion objected to the last of Pelides' points, Hector son of Priam suffered a stress-induced heart attack and fell to the ground, dead, just as falls the oak during a mighty thunderstorm.

In the midst of the Cyclopes' vain demands for order, great fighting broke out between the Greeks and Trojans for the body of Hector. Many laws were cited, and in vain did the Greeks and Trojans shout the virtues of their respective morgues and coroners. But at last the victory went to dreadful Achilles, whose white-hot rage had not yet cooled, and the son of Peleus tied it to the back of his Porsche. Thrice round the courthouse of Troy Achilles drove the carcass of mighty Hector, dragging it along the asphalt, until at last he tired of this, and yielded it

to Priam, king of Troy.

The Trojans petitioned Minos for a recess of three days to celebrate Hector's funeral games; this the judge granted with a heavy heart. For three days there were mock trials, and debates, and speaking contests, and trivia bowls, until at last Hector's body was burned on a mighty funeral pyre, and his law firm ceremonially removed his name from their business cards. Thus perished Hector, driver of sports cars.

## Ars Longa, Vita Brevis

The Alchemist asked if I wanted a drink. I did, but no amount of staring could make my eyes settle on the color of the liquid in the flask. And the gold the alchemists paid the taxmen smelled funny and made crackling noises. I declined.

I took the summons and set it on the table between us. The King's son was dying. The doctors, astrologers, witches, and other assorted wise people of the kingdom could not save him. The King had asked for an alchemist, and been given one. He, too, had failed. But he had let on that there were other alchemists in the guild, greater alchemists, who knew far more than he. So the king had demanded that all the guild's top alchemists come to the palace and try to save his son's life. And the alchemists' guild had refused, saying their studies could not be interrupted.

So here I was, come to make the request again, more formally but less politely.

The Alchemist pretended to read the parchment. I could tell he was faking; his eyes stayed still the whole time. Finally he gave me the same answer he had given the king's courier: the alchemists' studies could not be interrupted.

"Why is a few weeks subtracted from your studies more important than the prince's life?" I demanded, staring straight into his creepy too-still eyes.

He spent too long not answering. I worried I'd broken him, that he was some kind of intricate clockwork machine and I'd yelled too loud and shifted a gear out of place. Finally he asked: "How long would you have to study architecture before you could build a castle like this one?"

"I'm no architect," I said. "I'm a man of war."

"Yes. So how long would you have to study, before you were an architect?"

"Ten years?" I asked. "Twenty?"

"Why so? There are books of architecture, some of them written by

men far greater than the planner of this castle. Some are five hundred pages long, others a thousand. Are you so slow a reader, that it would take you ten years to read a thousand pages?"

"You can't just read a book and know architecture."

"But why not?"

"Because...you wouldn't..." I had been annoyed when he first asked, but now I found the question interesting, at least amusing. Why *couldn't* a great architect write his knowledge down in a book? And why *couldn't* I read it and become as good as he?

"Because you'd have to memorize it all," I finally concluded.

"Not so. I will let you carry the book with you as you build the castle."

"It wouldn't help. It wouldn't be...indexed properly in my head. I would want to build a wall, and I wouldn't even know what things to consider when building a wall, and I would have to search the whole book for them each time."

"You are a man of war," repeated the Alchemist. "Do you know Caesar's histories?"

"Almost by heart."

"Are you as good a general as Caesar?"

"No."

"Why not?"

I took his point. Caesar had written down everything he could about war. I had mastered all of it. But I was no Caesar. It couldn't just be the difficulty of memorizing books.

"Knowledge," said the Alchemist, "is harder to transmit than anyone appreciates. One can write down the structure of a certain arch, or the tactical considerations behind a certain strategy. But above those are higher skills, skills we cannot name or appreciate. Caesar could glance at a battlefield and know precisely which lines were reliable and which were about to break. Vitruvius could see a great basilica in his mind's eye, every wall and column snapping into place. We call this wisdom. It is not unteachable, but neither can it be taught. Do you understand?"



I did. If I trained with Caesar for years, some of his skill at reading a battlefield might rub off on me; I might dimly see the outlines of his genius. But he couldn't just tell me. It wasn't a secret which he hid from other men to remain above them. It was a power belonging to him alone, only partially transferable.

"So imagine," continued the Alchemist, "that you wanted to build the simplest of structures. A cottage for peasants. How long would you have to study architecture under Vitruvius before you could do it?"

This time I didn't bother protesting that I didn't know. I just guessed. "A year?"

"And suppose you want to build something more complex. An aqueduct, every bit the equal of the Romans'. How long?"

"Five years?"

"Some grand building, a palace or temple?"

"...ten years?"

"The grandest building in the world. St. Peter's Basilica, or the Pantheon, or Chartres Cathedral, or something new that combines the virtues of all three."

"How should I know? Twenty years? Thirty?"

"Would you believe me if I said it was two hundred years?"

"No. The human lifespan is three score and ten. If you needed more than seventy years of studying architecture to design St. Peter's, it would never have gotten designed."

"Then," said the Alchemist, "we have discovered something surprising. The art of architecture is limited by the human lifespan. The greatest building that can ever be designed is the one that would take seventy years of studying architecture to master; God has drawn a line in the sand forever closing off buildings grander than these."

I thought for a second. "That doesn't seem right. There are new innovations every year. The flying buttress, stained glass, the pointed arch. The Romans had none of these. We progress not only by studying the works of Vitruvius, but by pushing beyond him. Perhaps it takes a century for someone to invent the buttress, but once it is invented, only

weeks for other architects to observe it and understand it well enough to incorporate into their own buildings. Architecture does not advance only architect by architect, but also civilization by civilization.”

“Are you skilled at mathematics?” asked the Alchemist.

I shook my head.

“Then we will talk this over, though rightfully it should be an equation. The first term is the speed at which a student can absorb already-discovered architectural knowledge. The second term is the speed at which a master can discover new knowledge. The third term represents the degree to which one must already be on the frontier of knowledge to make new discoveries; at zero, everyone discovers equally regardless of what they already know; at one, one must have mastered every previously-discovered fact before one can discover anything new. The fourth term represents potential for specialization; at one, it is impossible to understand any part without understanding the whole; at zero, it can be subdivided freely. The fifth...”

“I don’t think saying it in words makes the math easier to understand.”

“Ah. Well, imagine a science that takes one-tenth as long for a student to understand, as it did a master to discover. And imagine that one cannot advance the science until one understands everything that has already been discovered. And one cannot split the burden; tell one architect ‘Oh, you learn how to make walls, I will learn how to make roofs’ – a single genius must understand the whole building, every part must fit together perfectly. We can calculate how far the art can advance.”

“How?”

“The first student has no master, and must discover everything himself. He researches for 70 years, then writes his wisdom into a book before he dies. The second student reads the book, and in 7 years, he has learned 70 years of research. Then he does his own original research for 63 years and writes a book containing 133 years of research. The third student reads for 13.3 years, then does his own research for 66.7 years, ending up with 200 years. Imagine going further and further. After many generations, 690 years of research have been done, and it takes a student 69 years to master them. The student only has one year left of life to research further, leaving the world with 691 years of research total. So the cycle creeps onward, always approaching but

never quite reaching 700 years of architectural research.”

“It doesn’t work that way,” I protested, partly because it didn’t, and partly because something about the story distressed me more than I could say.

“Not in architecture. An architect who has not yet mastered the entire field can still make discoveries. And the field can be split – I can work on walls while you work on windows. It would only work that way if there were an Art so unified, so perfect, that a seeker had to know the totality of what had been discovered before, if he wanted to know anything at all.”

“Then you really could never advance past 700 years of knowledge.”

“You would have to be clever. We imagine each master writing down his knowledge in a book for the student who comes after, and each student reading it at a rate of ten times as quickly as the master discovered it. But what if there was a third person in between, an editor, who reads the book not to learn the contents, but to learn how to rewrite it better and more clearly? Someone whose job it is to figure out perfect analogies, clever shortcuts, new ways of graphing and diagramming the information involved. After he has processed the master’s notes, he redacts them into a textbook which can teach in only a twentieth the time it took the master to discover.”

“Then we could double the amount of research that could eventually be completed, to 1400 years’ worth.”

“Not easily. Remember, the editors face the same problem as the students: they can only redact knowledge they themselves understand. We are adding many new people, and many generations of work, to the problem. But in the end, yes, you could accumulate 1400 years of knowledge. What if you wanted more?”

“More?”

“I’m afraid so.”

“Hm. You...could get more layers of redactors. Redactors of redactors, to make the textbooks truly perfect.”

“Perhaps what you are trying to say is that redaction is an Art.”

The Alchemist made the capital letter unmistakable.

"Every Art has its own structure. Architecture, with enough study, can allow you to accumulate seven hundred years of collected knowledge. How many years could redactors and tutors accumulate? Would some first redactor have to spend seventy years coming up with principles of redaction to pass down to his student, who advances the art by sixty-three more years, which he passes down in turn? Would a 1400-year redactor be an incomprehensible master, able to build whole basilicas of redaction, a master teacher who could frame any concepts to make it intuitive and memorable?"

"I changed my mind. I'm going to have that drink."

The Alchemist poured me the liquid of indeterminate color. I took a sip. It reminded me of nothing I had ever tasted before, but very slightly of the letter "N". More important, I was pretty sure it was alcoholic.

"You're talking about an infinite regress", I said, when I had finished the glass.

"Not infinite. Architects. Teachers. Teachers of teachers, but the art of teaching teaching is much the same as the art of teaching. Three levels is enough. Though the levels have to mix. The teacher who trains the next architect must be a master both of teaching and of architecture. I will spare you the math, but one needs a series of teachers at different points on the teaching-skill/architecture-skill tradeoff-curve. One will be a master teacher who has devoted decades to learning the textbook-writing skill, and who can write a brilliant Introduction To Architecture textbook that makes the first ten years of architecture ability seem perfectly natural and easy to master. Another will be a mediocre teacher who knows enough advanced architecture to write a passable textbook on the subject. Still another will do nothing but study pure Teaching itself, in the hopes that he can one day pass on this knowledge to others who will use it to write architecture textbooks. In practice we are limited to a few strategic points on the tradeoff curve."

"In practice?"

He motioned for me to get up. We walked through dark corridors until we reached a courtyard, bathed in the glow of the full moon. It took me a second to see it. Then the dull shapes took form. Obelisks, covered in hieroglyphs. A garden of obelisks.

"The word 'alchemy' comes from 'al-Kemi', the Arabic word from Egypt. It was the ancient Egyptians who first considered the project.

They didn't want the Philosophers' Stone, not at first. They just wanted normal philosophers. But philosophy, more than other subjects, requires the wisdom that comes with age. More than other subjects, a philosophy book cannot merely be read; it must be digested, intermingled with life experience, wrestled with. The Egyptians scholars ran into precisely the problem as our hypothetical architects – there were secrets that evaded the human lifespan.

"So they wondered whether a way to cheat death might be found. The answer was both exciting and discouraging. Through the mysteries of spiritual chemistry, an elixir might be created which would grant immortality. But the Work itself would take far more knowledge than any one man could accumulate. The symbol of alchemists is the ouroboros because our task loops back upon itself. In order to become immortal, you must first become immortal.

"All we could do was go the slow way, the same as the architects working on their great basilica, for generation after generation. So Egypt fell, but we did not fall. Rome passed away, but we did not pass. A few lines, the remnants of the old priestly families of Hierakonopolis and Memphis, continued the work. To stop would be to reset a process requiring four thousand years of gradual asymptotic improvement all the way to the beginning – texts are not worthless, but only the true tutors trained by tutor-tutors trained by tutor-tutor-tutors are fit to tutor an alchemist. A misstep is too terrible to contemplate. But any victory – a single vial of the Elixir, a single fragment of the stone – would end the nightmare forever. We would have an immortal, a philosopher whose lifespan finally matches the depth of the challenges Nature throws at us.

"That is our guild's mission. A few of us, those who pass all their tests, do the alchemic research that moves the Work onwards. Others train to be teachers, or teachers-of-teachers. Those who fail a test somewhere along the way stay in the guild, managing its worldly affairs. Some scour the countryside for prodigies to take in and train as apprentices. Others manage our finances. And the very least capable, like me, have time to waste talking to outsiders, trying to convince them of our mission. A few centuries more, and we will have the Stone. Does that satisfy your curiosity?"

"All except my original question. Are you so busy that you cannot spare a few weeks for the prince?"

"God does not make the Great Work easy. We have done all we can to

train our alchemists, our tutors, our tutor-tutors, and so on, yet in the end, the limit of human skill is the same place the possibility of success begins. It is His will to grind us up to the very asymptote."

"I still don't get it."

"Do you remember the architects who learned at ten times the rate they researched, the ones who would never accumulate more than 700 years of learning? The fiftieth alchemist in the sequence has 696 years of learning, and is able to do a scant five months' original research before his death. The hundredth alchemist has 699.98 years of learning, and is able to do about a day's research before dying. We are not so far along as all that, but we are far. We do not have the Stone, but we have tinctures that can stabilize the lifespan, make sure nobody dies before their time. The last few generations – on their deathbed, they say they can almost *taste* the Stone, that it lies only a few hours of further thought beyond their level. They say of my grandfather that he realized the recipe for the Stone on his deathbed, that he started speaking it, but that his eyes closed forever before he could complete the ingredient list."

"So?"

"You ask that we pause a few weeks from our studies to save the prince's life. Pausing a few weeks would set us back generations. This far into the project, only the last few hours of an Alchemist's life are of any value at all. We cannot spare the prince hours. We cannot even spare him seconds."

"Then your teachers...or your teacher-teachers?"

"Know some alchemy, but are in the same situation. Our textbooks have been so perfectly written and rewritten over the years that it is only in the last few days of a teacher's life that he is skilled enough to write a better one. And our teacher-training has become so perfect that it is only in the last few days of a teacher-trainer's life that he is qualified to create teachers better than the ones who already exist."

"There's no slack in the system at all?"

"Only me, and those like me. Those judged unfit for research and condemned to worldly matters. We sent you one already. He failed you, as he did us. We have nothing more to give."

"The king will not be happy. And the Prince will die."

"Everyone dies," said the Alchemist. "If the prince does not die this year, he will die the next, or fifty years hence. The question is not when we die, but what our life adds to the Work which accumulates in spite of time. Quicksilver evaporates to nothing unless reacted with aqua fortis; but the part which is reacted endures forever. Those lives not part of any Work mean as little to me as they will one day mean to their possessors; those which add to the Work are more precious than gold. Tell the King this."

"He won't understand," I said.

"Then you will have to teach him," said the Alchemist, "as I taught you, and my tutors taught me, and as their tutors taught them, all the way back to the first philosophers of Egypt."

He stared at me as he spoke, and the blackness in his too-still pupils was the depth of Time.

# Samsara

I.

The man standing outside my front door was carrying a clipboard and wearing a golden robe. “Not interested,” I said, preparing to slam the door in his face.

“Please,” said the acolyte. Before I could say no he’d jammed a wad of \$100 bills into my hand. “If this will buy a few moments of your time.”

It did, if only because I stood too flabbergasted to move. Surely they didn’t have enough money to do this for everybody.

“There is no everybody,” said the acolyte, when I expressed my bewilderment. “You’re the last one. The last unenlightened person in the world.”

And it sort of made sense. Twenty years ago, a group of San Francisco hippie/yuppie/techie seekers had pared down the ancient techniques to their bare essentials, then optimized *hard*. A combination of drugs, meditation, and ecstatic dance that could catapult you to enlightenment in the space of a weekend retreat, 100% success rate. Their cult/movement/startup, the Order Of The Golden Lotus, spread like wildfire through California – a state where wildfires spread even faster than usual – and then on to the rest of the world. Soon investment bankers and soccer moms were showing up to book clubs talking about how they had grasped the peace beyond understanding and vanquished their ego-self.

I’d kind of ignored it. Actually, super ignored it. First a flat refusal to attend Golden Lotus retreats. Then slamming the door in their face whenever their golden-robed pamphleteers came to call. Then quitting my job to live off savings after my coworkers started converting and the team-building exercises turned into meditation sessions. Then unplugging my cable box after the sitcoms started incorporating Golden Lotus themes and the national news started being about how peaceful everybody was all the time. After that I might have kind of become a complete recluse, never leaving the house, ordering meals through UberEats, cut off from noticing any of the changes happening outside except through the gradual disappearance of nonvegetarian restaurants on the app.



I'm not a bigot; people can have whatever religion they choose. But Golden Lotus wasn't for me. I don't want to be enlightened. I like being an individual with an ego. Ayn Rand loses me when she starts talking politics, but the stuff about selfishness really speaks to me. Tend to your own garden, that kind of thing. I'm not becoming part of some universal-love-transcendent-joy hive mind, and I'm not interested in what Golden Lotus is selling.

So I just said: "Cool. Do I get a medal?"

"This is actually very serious," said the acolyte. "Do you know about the Bodhisattva's Vow?"

"The what now?"

"It's from ancient China. You say it before embarking on the path of enlightenment. 'However innumerable sentient beings are, I vow to save them all.' The idea is that we're all in this together. We swear that we will not fully forsake this world of suffering and partake of the ultimate mahaparanirvana – complete cosmic bliss – until everyone is as enlightened as we are."

"Cool story."

"That means 7.5 billion people are waiting on *you*."

"What?"

"We all swore not to sit back and enjoy enlightenment until everyone was enlightened. Now everyone is enlightened except you. You're the only thing holding us all back from ultimate cosmic bliss."

"Man. I'm sorry."

"You are forgiven. We would like to offer you a free three-day course with the Head Lama of Golden Lotus to correct the situation. We'll pick you up at your home and fly you to the Big Island of Hawaii, where the Head Lama will personally..."

"...yeah, no thanks."

"What?"

"No thanks."

"But you have to! Nobody else can reach mahaparanirvana until you get enlightened!"

"Sure they can. Tell them I'm okay, they can head off to mahabharata without me, no need to wait up."

"They *can't*. They *swore not to*."

"Well, they shouldn't have done that."

"It's done! It's irreversible! The vow has been sworn! Each of the seven point five billion acolytes of Golden Lotus has sworn it!"

"Break it."

"We are enlightened beings! We can't break our solemn vow!"

"Then I guess you're going to learn an important lesson about swearing unbreakable vows you don't want to keep."

"Sir, this entire planet is heavy with suffering. It groans under its weight. Seven billion people, the entirety of the human race, and for the first time they have the chance to escape together! I understand you're afraid of enlightenment, I understand that this isn't what you would have chosen, but for the sake of the world, please, accept what must be!"

"I'm sorry," I said. "I really am. But the fault here is totally yours. You guys swore an oath conditional on my behavior, but that doesn't mean I have to change my behavior to prevent your oath from having bad consequences. Imagine if I let that work! You could all swear to kill yourself unless I donated money, and I'd have to donate or have billions of deaths on my hands. That kind of reasoning, you've got to nip it in the bud. I'm sorry about your oath and I'm sorry you're never going to get to Paramaribo but I don't want to be enlightened and you can't make me."

I slammed the door in his face.

II.

A few days later, just as I was trying to order lunch on UberEats, my cell phone internet stopped working. I tried my laptop. Wasn't working either. iPad? Not working.

I'd been wondering whether Golden Lotus was going to kill me. It was the natural thing to try in this situation. But I figured people who were too enlightened to break a vow were probably too enlightened to murder me, or to threaten to break my kneecaps, or to drug me, or to take any of the other easy ways out.

But starving me – that might work. And if everyone else was a Golden Lotuser at this point, they were like a world state. They probably controlled the infrastructure, and I didn't think there were any ancient Buddhist commandments against shutting off someone's internet connection.

There was a 7-11 on the corner of my street. I put on a jacket, prayed to any god who would listen to me right now, and walked outside.

My street, as I remembered it, was gone. The familiar buildings had been torn down. Far away, I could see tranquil gardens and intricate pagodas. But the street I was on – the one between my apartment and 7-11 – had been turned into a gauntlet. A series of flashing, attention-grabbing billboards and video-screens explaining Golden Lotus techniques, the virtues of enlightenment, and the illusory nature of the material world, accompanied by a soundtrack of giant speakers blaring sermons.

So this was their plan. Not very subtle, but I could live with it. I stared down at my feet and broke into a run, trying to make it to the store as quickly as possible without absorbing any of the information being blasted at me. Staring at my feet turned out to be a mistake – there were sutras written all along the pavement. The first giant letter was right past my doormat, and I saw them stretching forward, continuing in order to the 7-11 I was trying to reach. I tried looking up instead, but a transparent canopy placed atop the street was similarly laden with spiritual wisdom. I closed my eyes, but this slowed my progress forward, and made me more vulnerable to sermons coming from the speakers all around me. "SINGLE-POINTED AWARENESS ON ANY INDIVIDUAL SENSATION REVEALS ITS EMPTINESS!" blared one. "THE MIND IS LIKE A STILL POOL DISTURBED BY THE RIPPLES OF THOUGHTS" blasted another.

I thought about the technical problem facing Golden Lotus leadership: how do you enlighten someone who resists enlightenment? You can't teach them practices, because they won't do them. You can't impart advice, because they won't take it. But you can draw awareness to certain facets of their own thinking, along the lines of the old "You are

now aware of the feeling of your tongue in your mouth". You can present someone with metaphors of such explanatory value that they reshape the way he interprets his own experience. If you had a lot of very smart people developing the "curriculum", and a lot of patience, maybe it could work.

How could one resist such an effort? I would have to close all possible communication channels. I put my hands over my ears, even though the awkward position slowed my blind stumble to the store. I took a few steps forward, then felt a sudden weight. I opened my eyes. A brightly-colored macaw had landed on my right shoulder and was staring straight at me. "HERE AND NOW!" it screeched, point-blank, before flying off.

Okay. Trained birds. They were really on top of their game. So maybe I couldn't close off all possible communication channels. Maybe I would have to fight them on their own turf. Maybe if they've created a super-efficient science of enlightenment, I would have to create a super-efficient science of samsara.

The convenience store sold mostly rice and incense now, and restricted rice purchases to a single day's supply. I picked some up and headed for the cashier. The aisles were confusingly laid out, and I realized after a moment that they formed one of those labyrinths that people sometimes walk as a spiritual practice. I didn't think those things worked, but I couldn't take any chances. I climbed a shelf full of meditation cushions, vaulted over, and climbed down the other side to the frowning cashier.

I saw another door on the other side of the 7-11, this one guarded by a stern-looking man in a golden robe. I realized it was the door to freedom – outside my enlightenment-ad-plastered prison and into the world of pagodas and gardens outside. I assessed my chances. The monk was really big, and I didn't know if the door was locked or if there were other guards on the other side. I decided against it. I paid for my rice, stuffed enough of it in my pockets that I could reassume the hands-over-ears-eyes-closed pose, and walked home.

A science of samsara. What would that involve? Instead of meditating on lovingkindness, I could meditate on everybody I hated. Instead of a vow of poverty, I could take a vow of greed. Instead of practicing self-awareness, I could practice self-obliviousness. I took out a piece of paper and began to jot some of this down. This was going to be *so much fun*.

### III.

I was at the 7-11, buying a meditation cushion. My meditation on hatred was going well, but sitting on the floor that long was starting to hurt my back. I figured that on my daily rice run, I'd get a cushion, a bell, maybe some looser-fitting clothes. I was near the center of the labyrinth, picking them out, when someone tapped me on the shoulder.

It was the most beautiful woman I'd ever seen. She looked like a supermodel or something. She whispered to me. "Are you...the unenlightened person?"

I nodded, wondering where she was going with this.

"Look," she said. "I have not had decent sex in a year and a half. Everyone is just like 'abandon carnal desires of the flesh' and 'real pleasure comes from within'. And even when I can rope some guy into doing it, somehow it manages to be *tranquil*." She spat out this last word. "Are you...uh...are you free tonight?"

I controlled my shock at my good fortune long enough to sputter out a short "yes".

We stumbled back to my apartment together, braving the billboards and sermons and dive-bomb-parrots. In record time we made it to my bedroom and started ripping our clothes off.

"How did you get in?" I asked her. "Is this place well-guarded?"

"There's a door in the back of the 7-11," she said, confirming my suspicions. "There's one monk and your side, and about five on the other. There's no restriction on people coming in to talk to you if they want. Only on you getting out."

I pulled her onto the bed and into my embrace.

"You feel so good," she said. "It's like a snake, coiled at the bottom of the spine, waiting to get out. Oh! It's like the snake is made of energy, and the energy is escaping, moving upward..."

That sounded familiar. I stopped, pushed her off me.

"Wait a second," I said. "That's from tantric sex!"

"Tantric sex?" she asked innocently. "What's that?"

“Don’t pretend you don’t know what tantric sex is! It’s that thing where sex can be used as a spiritual practice that brings people to enlightenment! You’re trying to trick me!”

She pouted seductively. “Come on, let’s keep going.”

I started putting my clothes back on. “You guys are scared of me. You’re scared that you’re not reaching me, that I’m immune to your tricks. Well, tell them that they’re going to have to try harder. Every day I meditate for an hour on all the people I hate, then another hour on all the material goods I wish I had, then for another hour on all the women I want to screw. Then I finish it off with an hour trying to experience selfhood as viscerally and dramatically as possible. I’m reaching depths of samsara they can’t even imagine. And there’s nothing you or the Head Lama or anyone else can do about it. Get out!” I threw her clothes at her. When she left, I slammed the door in her face.

IV.

A knock on the door.

I got up from my meditation cushion, eyeing the stains and scratches on it. Twenty years. Twenty years I had kept up my meditation practice, the four hours of anger-greed-lust-selfhood meditation I’d established a few weeks after my confinement started. To be honest, I didn’t look much better than the cushion. I was getting old. My rice and tap water diet kept me lean and wiry, but the years still took their toll. There were no razors at the 7-11, so I had grown a long white beard.

For the first few years, Golden Lotus had tried more tricks like the supermodel. I had seen through them all. Eventually they must have given up. I’d been unmolested for more than a decade. I wondered what they were up to now.

At the door was a kid. There was no other way to describe him. Scrawny, a little worn-out, looked South Asian, maybe sixteen or seventeen. He was wearing some kind of black plastic poncho over his clothes.

“Excuse me,” he said. “Are you the unenlightened man?”

“That’s me.”

“I want to learn from you.”

“What?”

“Master, until now I have lived an unexamined life. Going to temple every day, meditating, taking the drugs, doing the dances. But I longed for something more. In an old library, I found a book which claimed the ancients knew of a state known as samsara, and of a mystery called the Self. That those who master these mysteries gain strange powers. Using the technique of Greed, they can attain such perfect willpower that they can work eighty hour weeks for abusive bosses without quitting. Using the technique of Lust, they can reach such perfect focus that all their thoughts for months revolve around the same person.

“I thought it might all just be legends. But I asked those who knew more than I did, and they directed me to those who knew more than them, and finally I heard rumors that in a far-off place called California there was an ancient sage who had achieved samsara long ago. Please, Master, will you take me as your disciple?”

I was flabbergasted for just a second before common sense took hold of me once again. “No,” I said. “You’re some kind of trick. Go away.”

“Master!” protested the kid. “I will wait kneeling on your doorstep without food or water until you agree to take me as a disciple!”

I shrugged and closed the door.

The next day, when I went out to 7-11, the kid was still there, kneeling.

“Master!” he said. “Please take me as your disciple.”

“No,” I said. “But if you want to make yourself useful, you can help guide me to the corner store while I have my eyes closed and my hands over my ears. And if you see any parrots, fight them off.”

“Yes, Master!” said the kid, and he took me by the arm and helped guide me to 7-11.

The next day the same thing happened. I went to go to the store, the kid was waiting on my doorstep, and he helped guide me to 7-11 safely. By the time I got back it was raining, and although the transparent canopy covered with sutra verses blocked out the worst of it, there was still a chill in the air.

“You might as well come inside and sleep on the couch,” I told him. “And have a little of the rice.”

The next morning, we began his training. I asked him to think about all the material goods he wanted. He couldn't come up with any. I asked him to think about all the most attractive women he knew. He said he'd never thought about women that way before, and it seemed kind of objectifying. I asked him who really pissed him off, and his only answer was himself, when he strayed from the path of maximum virtue.

I tried for a few hours, then I gave up.

"Go to the spare room," I said "and think about the sound of one hand clapping. Once you figure it out, come tell me. Until then, leave me alone. Got it, uh...what was your name again?"

"Maitrayaniputra," said the kid.

"Not anymore," I said. "From now on, your name is Brad."

V.

Somehow, my fame spread.

My apartment-street-convenience-store prison had turned into a makeshift ashram. Two dozen seekers from all around the globe. A select few slept in my house. The rest pitched tents on the street, or huddled into the aisles of the 7-11. The guard on the back door stared at them impassively, but said nothing.

I tried to discourage them, turn them away. But every time I yelled at one, or hit her with my cane, or slapped him on the face, more kept coming, sure this was some manifestation of ancient wisdom. A few gave up and returned back through the guarded door; but overall the numbers grew and grew.

Brad had declared himself chief of my disciples, the Peter to my Jesus. He would lead the congregation in meditation each morning, drawing off my old morning routine – an hour thinking of all the people they were angry at, an hour thinking of the material goods they wanted, an hour thinking of all the sexy people they wanted to screw – followed by a final hour of meditation on the Self. The novices failed in ways I didn't even think possible. All the material goods they wanted were things like lotuses and celestial jewels. All the people they wanted to have sex with were particularly virtuous saints whose wisdom they admired. Sometimes, I would march into the room and demand to know what a novice was thinking. "Who are you having sexual fantasies about?" I



shouted at one young man, who I had given the name Kyle. He admitted he was thinking of the Tibetan Buddhist guru Padmasambhava. "Are you even gay?" I demanded. He didn't know what that meant, so I explained that some people were straight and should be having fantasies about the opposite sex, and other people were gay and should be having fantasies about the same sex, and other people were bi and could have fantasies about whichever sex they wanted. "But how would I know which of those I am?" Kyle asked me. I didn't know what to say, so I hit him with my stick and stormed out.

But they kept coming. Kyle left the ashram, only to return a few weeks later with his sister. Her name was Shantideva; I told her she would henceforth be Sherri. Sherri was stick-thin, a dialysis port in one arm, and rarely spoke. Kyle told me she had a rare disease and would die before age 30. She had read Dylan Thomas' "Rage Against The Dying Of The Light" and decided to achieve samsara before she died, so that she too could feel rage at her situation. I was nervous about her – she looked like the slightest breeze would tip her over – but she meditated with a fervor beyond anything I could have predicted, sometimes outdoing even Brad in time spent on the cushion.

I instituted a dress code for my disciples. I made the men dress as douchey as possible, and the women as slutty as they could. One day I dug my old printer out of a closet, and ran off a thousand copies of George Washington's face. I distributed them to the disciples as unevenly as I could. "This is money," I said. "It is an important ritual object. From now on, whenever someone wants something from you, you must refuse unless they offer you money. If they don't offer you enough money, you should yell at them and call them cheap. If they offer you too much money, you should laugh at them behind their backs and tell everyone they're an easy mark."

"But Master," protested Kyle, "why do we need all these rituals? Didn't you yourself say that the essence of samsara is about mental states? Aren't all these intermediaries and traditions only distracting us from the true work of self-transformation?"

"I will give you \$10 to shut up and stop bothering me about this," I said, and I handed him ten of the Washington papers.

Kyle slowly nodded and took them.

"Now do you understand?" I asked.

Kyle nodded, but I could tell he did not understand.

A few days later, Brad came into my room. I looked up.

"Master," he said. "There is no sound of one hand clapping. You were just trying to get rid of me. I wasted almost a year of my life trying to figure it out, and there was nothing there. It was all a fraud and you're a fraud and this whole piece of shit ashram is a fraud. Fuck you."

"My son," I said. "Today you have achieved samsara."

Brad stopped as if stuck by a train. He tried to speak, then tried again, then fell silent. I watched as understanding flowed into his eyes.

"You bastard," he said. "You magnificent bastard. You really did it." He hugged me. I hugged him back. Then I marched him out to the street, where the majority of the disciples were eating their evening meal. "Everybody!" I announced. "Brad is unenlightened now! That means he's better than you! He's going to lord it over you, and you should all feel jealous of him!" A few looks of bewilderment from people who couldn't grasp why they should be unhappy at anyone else's achievement, but that was fine. I knew I had planted a seed.

## VI.

Years went by. My first disciples – Brad, Kyle, Sherri, and the rest – left the ashram to preach to the outside world. New disciples replaced them. Life went on.

I grew into my role as samsara master. If Golden Lotus could enlighten people in a weekend, I needed to be able to unenlighten them faster. I spent more and more time in meditation, probing the true meaning of samsara, investigating each impulse, querying each baser urge. My doctrines became more and more esoteric. I began telling seekers that they were already unenlightened, if only they could see it. That there was nothing to attain. That there was no samsara separate from nirvana.

Some left, unable to handle the paradox. It was one of these, a middle-aged man I had dubbed Logan, who left behind the golden robe.

He had taken off to change it douchey clothes as soon as he arrived. And he left in the douchey clothes I gave him. The golden robe hung in my closet. Nobody missed it. Nobody knew I had it.

I decided to try a jailbreak.

I put on the golden robe. Then I dug up an old razor from the bottom drawer of my bathroom. Then I shaved off my long beard. Then I shaved my head, until I looked the very image of a Golden Lotus monk.

I went out to the 7-11 and walked up to the back door. "I'm sick of this place," I told the guard. "I'm going home."

He waved me through, and for the first time in twenty-five years, I stepped into the world beyond.

It looked like a Japanese garden. Bonsai-perfect trees grew everywhere, hanging over glassy ponds stocked with koi. The roads had given way to carefully tended paths, lined every so often by pagodas or temple-like houses.

I walked further, until I reached what had been the town center before. The general aesthetic continued, but the buildings were closer together now. I saw fellow golden-robed acolytes walking the streets or sitting contemplatively beneath the trees.

One golden-robed man sitting underneath a cherry tree looked exactly like Brad. He was talking to another man who looked exactly like Kyle. I could only hear bits of their speech, but it sounded very tranquil. I hid behind a shrine. What was going on here? Was it really them? Had they reverted already?

"Sorry!" said a jogger, as she almost ran into me. I blinked again, took a second look. It was Sherri, the frail girl with the chronic disease. She didn't look frail or diseased now. I grabbed her by the wrist, made her stop.

"Sherri. What's going on?"

I saw recognition in her eyes, and her lips curled into a smile.

I'd been right that first time then, all those years ago. A trick. They'd all been plants. Why? What had they accomplished? *Getting me thinking about samsara*. I retraced several years worth of mental steps. Trying to understand the nature of desire. Becoming more aware of the movements of my own mind. They had gotten me *good*. I had to distract myself. Think of a material good. Think of a red Ferrari. I concentrated on a red Ferrari as hard as I could, tried to block everything else out of my mind, all the insights, all the shame, all the

trickery. Just a red Ferrari, on a black road, beneath a blue sky.  
Everything else faded.

Sherri clapped once, right in front of my face.

Upon hearing this, I was enlightened.

## VII. Poetry

## Verses Composed Upon Reading A Review From TripAdvisor



Singapore,  
Singapore

171 196



Reviewed October 5, 2011

## Xanadu...Kublai Khan's summer palace

The sheer desolation of Xanadu is exactly its attraction. This is one of the attractions in China/ Inner Mongolia that is least visited by foreign tourists. Xanadu, otherwise known as Yuanshangdu, today is less an eternal world than a set of dilapidated stone walls and towers buried in centuries of dirt and weeds, very different from what Marco Polo has described what it used to be. This is now the ruins of what was the riches and grandest places on earth in 1275.

The easiest way to get to this place is to take a flight from Beijing to Xilinhot, and from there, hire a private vehicle/ driver to take you there. We arrived at Xilinhot at about 9am and started our journey to Xanadu, breaking for a half hour lunch in between. We got to Xanadu at about 3pm, and by the time we got back to Xilinhot town again, it was past 9pm. All the better hotels in Xilinhot are quite far away from Xanadu, the ones near Xanadu are catered mainly to truck drivers that pass the highways. There is a huge statue of Kublai Khan near the entrance of the site as well as a large stone sign, both look great on photos. There are mini buggies to take tourists into the site for a small fee and private guides in the area can be organised at one of the 2 gers located near the entrance. The other small ger is a small souvenir shops - quite a small dusty little shop but the lady within is very polite and the items very reasonably priced. I went at the end of August and we were the only foreign tourists there.



Source is [this page](#)

The Tourist Board of Xanadu  
Did recently impose a fee  
On those who travel far from home  
To visit Kubla's pleasure dome  
Of \$20, 9 to 3

So twice five miles of fertile ground  
With fence and wire are girdled round  
And signs proclaiming "ENTRY AT THE GATE"  
Where gather many a camera-bearing crowd  
And here are docents, who in solemn state  
Explain the Mongol histories aloud

But oh! That deep romantic chasm protracting  
Into a hill, athwart a cedarn cover  
A savage region, visitors attracting

By actresses, forever reenacting  
A woman wailing to her demon-lover

And from this chasm, with ceaseless turmoil spilling  
Crowds of old men in fat thick pants are milling  
And there, a fountain momentarily is forced:  
Amid whose swift half-intermittent burst  
Groups of eight to ten people, screaming ever  
White-water-raft upon the sacred river

Five miles continuing to a crashing climax  
Through wood and dale the sacred waters run;  
I didn't think this part was too much fun,  
So skip the crowds, and head down to the IMAX,  
Where in surround-sound, you can hear from far  
Ancestral voices prophesying war!

The shadow of the dome of pleasure  
Stands reflected in the mere;  
Take some photos there to treasure  
As a special souvenir  
It is a miracle of rare device:  
A tourist trap, but also pretty nice.

A damsel with a dulcimer  
In a vision once I saw:  
It was an Abyssinian maid  
And on her dulcimer she played,  
Singing of Mount Abora.  
Could I revive within me  
Her symphony and song,  
To such a deep delight 'twould win me,  
That with music loud and long,  
I would build that dome in air

That sunny dome! those caves of ice!  
And all who heard should see them there,  
And all should cry, Beware! Beware!  
His flashing eyes! His floating hair!  
Hide the sight from eyes profane,  
And weave a circle round him thrice  
For he hath tasted Paradise,  
5/5, would taste again.



This entry was posted in [Uncategorized](#) and tagged [poetry](#), [wtf](#) on [July 25, 2018](#) by [Scott Alexander](#).

## Elegy For John McCain

Say a prayer for John McCain  
Who passes from his earthly pain  
His eyes are shut upon his brow  
He warmongers to angels now

Beyond the sky, where sorrows cease  
He rails against the Prince of Peace.  
The Holy Spirit, full of love  
McCain denounces as “a dove”

All of the weak and the cowardly policies  
Heaven pursues that let sin subsist still  
Six thousand years of detente with the darkness  
In hippie clichés about “choice” and “free will”  
All the fifth-columnists, communists, peaceniks  
Since ur-commie Lucifer fell from the dawn  
John McCain pounds them, he trounces, denounces them  
Hounds them and counsels them: cease and begone

All of the saints and the hosts of the angels  
Run to their weapons of lightning and flame  
Their swords made of sunbeams and sighs of the martyrs,  
Their gossamer banners of God’s awesome Name,  
Their heavenly helmets and holy habergeons,  
Whose breastplates are bright with the light of the dawn;  
The Archangel Michael in malachite armor  
Blows blasts on his trumpet and beckons them on

Reader, should your weather be  
Meteors falling lazily  
Or if your neighborhood should seem  
A John of Patmos fever dream

Then say a prayer for John McCain  
Now passed beyond all earthly pain  
Not death, with all the peace it brings  
Could end his love of bombing things

This entry was posted in [Uncategorized](#) and tagged [poetry](#), [politics](#) on [August 27, 2018](#) by [Scott Alexander](#).

# Chopping Feet Off Sonnet 18

(original by William Shakespeare)

Shall I compare thee to a summer's day? Thou art more lovely and more temperate: Rough winds do shake the darling buds of May, And summer's lease hath all too short a date: Sometime too hot the eye of heaven shines, And often is his gold complexion dimmed, And every fair from fair sometime declines, By chance, or nature's changing course untrimmed: But thy eternal summer shall not fade, Nor lose possession of that fair thou ow'st, Nor shall death brag thou wander'st in his shade, When in eternal lines to time thou grow'st, So long as men can breathe, or eyes can see, So long lives this, and this gives life to thee.

\*

O, thou art like a summer's day But fairer and more temperate Rough winds do shake the buds of May And summer hath too short a date. Sometimes too hot the sunlight shines And sometimes is its color dimmed And every fair from fair declines By chance, or nature's course, untrimmed. But thy own summer shall not fade Nor shalt thou lose the fair thou ow'st Nor shalt Death have thou in his shade In timeless lines to Time thou growst. So long as men can breathe or see, So long lives this, and through it, thee.

\*

A summer's day? No, you're more fair! There's storms in May And sunshine's rare. The sky's too bright Or else too dim; All charms take flight By nature's whim. But you won't fade, Nor lose your fair, Nor reach death's shade; These lines will spare! If men still see, This poem's for thee.

\*

Nice day? No, you! Storms spray Spring too. It's warm Or cold. And charm Gets old. You'll not Decline; You've got This line. Men here? You're clear.

# Hallelujah/Battle Hymn Of The Republic

(to the tune of Hallelujah by Leonard Cohen)

Mine eyes have seen the glory of The coming of the Lord above He's got some grapes of wrath He's gonna brew ya He's loosed the fateful lightning stored Within his terrible swift sword Truth's marching, glory glory hallelujah! Hallelujah, hallelujah Hallelujah, hallelujah

I've seen Him in a hundred camps They've built an altar in the damps And where the chill of evening passes through ya I've read his righteous sentence in The lights that flare both bright and dim His day comes, glory glory hallelujah! Hallelujah, hallelujah Hallelujah, hallelujah

I read a Gospel writ in steel God sees how you with sinners deal And as you do to them, His grace will do ya Let hero born of woman crush The serpent hidden in the brush God's marching, glory glory hallelujah! Hallelujah, hallelujah Hallelujah, hallelujah

He's sounded forth the trumpet call That never knows retreat at all And from His judgment seat He's gonna view ya Be swift my soul his call to meet Be jubilant, my legs and feet God's marching, glory glory hallelujah! Hallelujah, hallelujah Hallelujah, hallelujah

Beside the lilies, Christ was born Amidst the beauty of the morn With glory in His bosom to renew ya And as He died in saving me So I will die to make men free God's marching, glory glory hallelujah! Hallelujah, hallelujah Hallelujah, hallelujah \* (to the tune of Battle Hymn of the Republic)

I heard there was a secret chord that David used to play But you don't really care for anything I have to say It goes like this, the fourth, the fifth, and so on in this way He just kept playing on!

The baffled king composing Hallelujah! The baffled king composing Hallelujah! The baffled king composing Hallelujah! He just kept playing on!

Your faith in God was strong and yet you felt you needed proof You saw

the moonbeams dancing as she bathed upon the roof She tied you to a kitchen chair, she cut your hair, and - oof! She drew it from your lips!

From your lips the Hallelujah! From your lips the Hallelujah! From your lips the Hallelujah! She drew it from your lips!

You say that I have tried to take the Name of God in vain But really to be honest I don't even know the Name A blaze of light in every word, I guess they're all the same. It doesn't matter which!

The holy or the broken Hallelujah! The holy or the broken Hallelujah! The holy or the broken Hallelujah! It doesn't matter which!

It might not have been much, but still I tried to do my best And even though it all went wrong, I feel that I've been blessed And if I meet the Lord of Song when I am laid to rest That's all I'll have to say!

I will tell Him Hallelujah! I will tell Him Hallelujah! I will tell Him Hallelujah! That's all I'll have to say!

# William Donald Hamilton

How does a selfish genome, evolved over eons  
Of survival of the fittest, in a contest to the finish  
With Nature red in tooth and claw, perpetually  
clashing End up producing altruism and compassion?

The ultimate conclusion to this crux of evolution  
Cutting straight through the confusion, took a brilliant contribution  
From a genius in collusion with a top-notch institution  
To tie the threads together and arrive at a solution

And every day, unknown, in destitution  
Away in a library he toiled in seclusion  
Inside, he was longing to cut through the illusion  
Gonna figure out life's secrets, gonna start a revolution!

Then an insight came, the rule that bears his name  
If you grow up in a family your genes are half the same  
Reproduction of the bloodline, not the body, is the aim. You gotta placate Darwin, but you're gonna shift the frame

Well, the word got around, they said this kid is insane, man  
Look at all the mysteries that we can now explain, man  
Gotta go to Oxford and develop that huge brain, man  
And the world's gonna know your name - what's your name, man?

William Donald Hamilton My name is William Donald Hamilton  
And there's a million things I can't explain  
But just you wait... just you wait

When he was thirty-four he saw, how the law, of relation  
Applied to hymenoptera, produced cooperation  
By degree, can't you see, how the key's the queen bee  
And at a stroke, he understood eusociality

Moved on to America and set up shop in Michigan  
Turned to herd behavior and he studied bugs and fish again  
Why they move in groups instead of fending for themselves  
Started uniting, rewriting every treatise on the shelf

There would have been nothing left to do  
For someone less ambitious  
But he turned from bugs and fishes  
To why creatures act malicious  
They were noting, devoting time to acts of resistance  
Against conspecifics signaling a high genetic distance

Combining, redefining every field he gets his hands on Changing times,  
paradigms, see him now as he stands on The brink of a revolution  
sweeping zoology With Darwin, we can rewrite biology!

(with Darwin, we can rewrite biology...with Darwin, we can rewrite  
biology...)

William Donald Hamilton We are waiting in the wings for you You  
could never back down You never learned to take your time!

Oh, William Donald Hamilton When biology sings for you Will they  
know how much work it took? Will they know you rewrote the book?  
So many places still to look, oh He's headed to the Congo now, a final  
expedition Just another scientist, going on a mission Overturning  
certainties and breaking with traditions

But me? I taught him Me? I worked with him Me? I learned from him  
Me? I challenged him And all our genes follow his conditions

There's a million things I can't explain, But just you wait. What's your  
name man?

William Donald Hamilton!

## The Character's Complaint

I've wiped off the blood and I've cleaned up the rubble  
And most of the burn marks have faded to pink  
I've finally started to save up some cash  
After paying the surgeon, the doc, and the shrink  
The neighbors are letting their kids play outside now  
And even the nightmares are starting to ease  
So if you are reading this, Author, I'm pleading  
Don't write any books on me! No more books! Please!

I don't want to get in a hijack or bombing  
Which seems to be most of the plot of a thriller  
I've noticed that when you say "mystery book"  
You mean "brutal unstoppable serial killer"  
I don't want to be in a romance  
If it ends with divorce from my spouse  
Or trudge off to the stores to buy heavy steel doors  
To zombie-proof all of the gates to my house

I don't want to be in a novel on war  
And be sent forth to die at the edge of the globe  
Though the future sounds swell, I'll stay out of sci-fi  
If it has the words "parasite", "anal", or "probe"  
I don't want to be in dystopian fiction  
And get renamed something like "Janitor Eight"  
I'm far too high class to be happy with fanfic  
And ladies, no slash please – no, honest, I'm straight

To inclusion in works of some authors of note  
I object with particular force  
Solzhenitsyn, Wiesel, Kafka, Salinger, Plath  
Either Bronte – plus Lovecraft, of course  
Victor Hugo would make me *le misérable*  
And George RR Martin inspires some doubt  
It's not just the fact that he'd probably kill me  
It's that I would have to wait years to find out

A Rand book would probably help the economy  
There'd always be jobs in a world of tycoons  
But I'd have to sit through all those monologues



By long-winded lone libertarian loons  
Neal Stephenson's better, but isn't for me  
I always found programming hard  
And although I loved Ender, I'm leftist on gender  
And boycotting Orson Scott Card

I promise I'm doing my best not to tempt you  
I've put away plot hooks and tied up loose ends  
I've found my real parents with DNA testing  
Confessed all my crushes on all my cute friends  
I'm staying away from ruined cities and taverns  
Avoiding emotions like angst and ennui  
If I find in my home some forgotten old tome  
I will back away slowly, and let the thing be

I'm not taking actions that might have a Moral  
Like dissing my elders or mocking the poor  
I won't undervalue the Power of Love  
Or disregard friendship 'cause cash matters more  
I won't sell my cow for a couple of bean plants  
I won't kill my magic gold-egg laying goose  
Or challenge the sky, with my fist raised up high  
Shouting "I AM MORE [ADJECTIVE] EVEN THAN ZEUS!"

My actions don't show We Must Value Diversity  
They don't provide proof Being Different's Okay  
I try to avoid Overcoming Adversity  
Based upon race, gender, class, or Teh Gay  
I will not discover The Faith Of A Child  
Is purer than that of priest, rabbi, or lama  
Wherever I'm able, I've sidestepped each fable  
In ways that exclude any lesson or drama

And really, your talents are wasted on fiction  
Why not try your hand at political prose?  
I hear that some papers pay pundits good money  
And blogs are more lucrative even than those  
You could be the guy who gets studies in *Nature*  
Or who writes for the popular press and explains  
The import to clients of breakthroughs in science  
Like how vaccinations won't melt their kids' brains

What if you find yourself thwarted by writer's block  
Hands stained with ink and a face stained with tears?

Hunching at desks for too long causes joint pain  
I hear carpal tunnel stays with you for years  
The kids these days just play computer games anyway  
Each year the market gets smaller and smaller  
And editors milk you and agents will bilk you  
And publishers only pay cents on the dollar

Our mutual interests align pretty nicely  
You don't want a half-finished draft on the shelf  
And I'd rather not be thrust into a conflict  
With Man, Nature, Culture, The Gods, or Myself  
So go take up dancing, or look at a sunset  
Rekindle the flame with your husband or wife  
Don't write one more letter – we both deserve better  
Put down the damn pen and get on with your life!

*[dedicated to Alicorn [for obvious reasons](#)]*

## VIII. Book Reviews

## Book Review: Infinite Jest (alternate title: “Look At Me! I Read Infinite Jest!”)

Warning: Composed entirely of spoilers for *Infinite Jest*.

I was talking to my roommate about *Infinite Jest*, and he asked me how it compared to *Illuminatus*. In an instant of sudden clarity I realized he was right, that they were basically *the same book* – the same fractally complex narrative of broken meandering plots about an endlessly-awaited but never arriving apocalypse; the same weird nightmare funhouse mirror held up to the world; the same thousand-odd pages followed by hundreds of complicated footnotes; the same ambiguously-successful attempt to draw a spark of honest feeling out of the detached amusement that is post-modernism.

...and then it turned out that my roommate had just gotten confused and thought Robert Anton Wilson and David Foster Wallace were the same person, because they both had three names. An understandable mistake, I guess. But I stick to my assessment.

The biggest difference between the two is that where *Illuminatus* revels in the *weird* – talking supercomputers, giant sea monsters, telepaths, immortal sages – *Infinite Jest* manages to do the same thing with the *almost normal*. Almost as much a pastiche of short stories as a coherent narrative (actually, it’s almost as much a three-toed sloth as it is a coherent narrative) each episode could be a particularly creepy or poignant urban legend – not the ghost or alien kind but the kind where something happens so perfectly symbolically that it forms an image that sticks with you forever. The “woman microwaves her dog to dry it off” kind, or the “man leaves his entire fortune to the first person to pray at his grave” kind.

Which is not to say that *Infinite Jest* is anything close to “glurge”. The book is incredibly heavy (literally and figuratively) and has so many cycles within cycles that some of the most important events in the book, let alone the themes, are totally opaque to a first reading. But after going through it and reading some of the various analyses on the Internet, I am prepared to take a stab at saying what it is about.

*Infinite Jest* is about wireheading. More specifically, it's about not wireheading. It's about the difference between masturbation and sex. It's about the dangers of self-reference and the need to connect to something outside yourself.

So how's this for symbolism: the book is set in a future USA-Canada-Mexico merger called the Organization of North American Nations. I originally thought [O.N.A.N.](#) was just a cheap gag, in the same way Robert Anton Wilson called his supercomputer F.U.C.K.U.P. But David Foster Wallace does not do cheap gags. The book was taking place in a society literally named for masturbation, and its entire structure was based on pleasure without purpose.

O.N.A.N.ite society is dominated by the InterLace cartridges, which as of the book's publication in 1996 must have seemed like a dystopian future technology, but which to modern readers sounds pretty much like an unimpressive clone of Netflix with fewer features. InterLace allows everyone to watch whatever they want whenever they want, destroying the one redeeming feature of network television – that at least people watched the same things as their friends and could talk about them. Instead, a host of niche shows have sprung up; some saccharinely corporate, others bizarrely post-modern.

James Incandenza made this latter type of film cartridge. He is probably the best candidate for a “main character”, even though he died five years before the book began, in the Year of the Trial-Sized Dove Bar (the government has decided to raise money by selling corporate sponsorship of year names, giving time a sort of dreamy, non-ordinal quality). Footnote 24 of the book gives an eight page filmography of Incandenza's productions along with plot summaries (did I mention this book is ridiculously detailed?), including such bizarre numbers as *Pre-Nuptial Agreement of Heaven and Hell*, *At Least Three Cheers For Cause And Effect*, *It Was A Great Marvel That He Was In The Father Without Knowing Him*, and the book's namesake, *Infinite Jest*.

This last film, never released, has the unusual property that anyone who sees it will continue watching it forever in a state of bliss, unwilling and unable to do anything else ever again. When rumors of its existence reach a group of Quebecois separatist terrorists, they attempt to distribute it freely, believing that Americans are so entertainment-obsessed that they will voluntarily choose to watch it. The Office of Unspecified Services, a government bogeyman organization, tries to thwart the terrorists and keep the film under wraps, leading to a really fascinating discussion on the value of

whether people should have free choice in a world where it is so easy for one's choices to enslave oneself.

[I feel a need to mention these terrorists' other *modus operandi* here. They go to deserted mountain roads late at night and install huge portable mirrors. When a truck drives down the road, it sees the headlights of another truck coming right towards it. When it swerves right, the other truck swerves right; when it swerves left, the other truck swerves left. Finally, desperate to avoid the inevitable collision, the truck will swerve straight off the road and be destroyed on the cliffs below; the terrorists will then remove the mirror and head off, leaving the authorities to assume an ordinary car accident. They are caught only when a suicidal truck driver decides to take the opportunity to let the other truck finish him off, and instead crashes straight through the mirror, saving his own life and revealing the deception. Are you starting to see what I mean about the AMAZING CREEPY NIGHTMARE SYMBOLISM?]

So the film is clearly a symbol for wireheading, and in fact some of the characters discussing it specifically mention the wireheading experiments that have been done on both rats and humans. But the other half of the book, which centers around the lives of drug addicts in a Boston Alcoholics Anonymous program, is equally wirehead-related, and the dull boring everyday struggles of the addicts form an interesting counterpoint to the wacky sci-fi struggles to control Incandenza's deadly film cartridge.

One counterpoint to wireheading is competition. A worse author would have taken sides, saying that seeking pleasure alone is a great evil, competition – the desire to be the best at something, even when it hurts and isn't pleasant at all – is a great good. Instead, all of Wallace's depictions of competition are sort of horrific. Enfield Tennis Academy, a school founded by James Incandenza during his "tennis phase" (as distinct from his "film director" phase and his "invent working fusion power" phase) is full of hypercompetitive children who devote their entire lives to mastering tennis. Some become boring and robotic inside, losing the depth for any thoughts beside their position on a ranking chart. Others turn to drugs – of which, by the way, David Foster Wallace has an encyclopaedic knowledge that boggles even my professional-psychiatrist mind. Still others become nervous wrecks.

[There is a brief story about Eric Clipperton, a boy who would show up at junior tennis tournaments with a loaded gun, which he would hold to his head throughout his games, threatening at each moment to kill

himself if he lost. Each tournament his opponents would throw their games and Clipperton would take first place, then immediately running off and disappearing before he could get arrested. Eventually Clipperton became the number one ranked junior tennis player in O.N.A.N., at which point he had nothing left to live for and promptly shot himself. Did I mention the AMAZING CREEPY NIGHTMARE SYMBOLISM?]

Among my favorite sentences was a part about LaMont Chu, one of the Enfield Tennis students, who is desperate to one day have his picture in a glossy sports magazine. The Tennis Academy's on-site guru (of course the tennis academy has a guru!) tells him that "After the first photograph has been in a magazine, the famous men do not enjoy their photographs in magazines so much as they fear that their photographs will cease to appear in magazines."

LaMont and Clipperton seem to represent the hedonic treadmill, the fact that getting what you want doesn't make you any happier, it just makes that your new set point and you want something else. Ironically, this is no different than the drug addicts, who find that as much as they enjoy their drugs, after a while they adjust to that dose and need a higher dose. Or to parallelify it to the guru's quote, they do not enjoy their drugs so much as they fear that they will cease to get their drugs.

So if wireheading is sterile, and competition is useless, is there anything worthwhile? Wallace's answer is...probably too complicated for a blog post, but it seems to be about *anything other than yourself*.

Sometimes this means Helping Other People, and this is one of the few heavy-handed parts of the book. M. Remy, a Wheelchair Assassin (there, uh, might be an entire cell of wheelchair-bound terrorists in this universe) becomes suicidal after his disabling accident but regains the will to live after rescuing a deformed woman from a truck – actually, a suspicious number of the decent, likeable characters in this book are deformed, so much so that a Union of the Hideously and Improbably Deformed is an organizational bit player in several scenes.

But there seems to be this more vague sense in which it's about interpersonal communication. [Better people than I](#) have tried to explain the subplot centering around Hal Incandenza, and I should probably just quote:

Central to the dramatization is Hal Incandenza, who opens the novel by unnerving a panel of college administrators when he

speaks to them. Hal [whose speech inexplicably comes out as horrible nightmarish shrieks] tries to tell the admissions panel things like:

"I have an intricate history. Experiences and feelings. I'm complex...

I'm not a machine. I feel and believe. I have opinions. Some of them are interesting. I believe the influence of Kierkegaard on Camus is underestimated. I believe Dennis Gabor may very well have been the Antichrist. I believe Hobbes is just Rousseau in a dark mirror. I believe, with Hegel, that transcendence is absorption.

Please don't think I don't care."

This is quite a contrast from what Hal feels later in the book/earlier in the events about being basically empty of feeling:

Hal himself hasn't had a bona fide intensity-of-interior-life-type emotion since he was tiny; he finds terms like *joie* and *value* to be like so many variables in rarified equations, and he can manipulate them well enough to satisfy everyone but himself that he's in there, inside his own hull, as a human being — but in fact he's far more robotic...inside Hal there's pretty much nothing at all, he knows.

The admissions panel members respond to Hal's admissions of feeling, by freaking out. They don't understand Hal's voice; they are, in fact, terrified by it.

Much of the book is devoted, in its meandering way, to the story of how Hal, a child prodigy, was emotionally dead inside but managed to fool everyone except his father James. In the climax of the book, James admits that he made the fatally-entertaining *Infinite Jest* as an attempt to create something so emotionally overwhelming that it would break his son out of his shell. Although the crucial scene is left out, we transition from Hal being emotionally dead but extraordinarily successful and beloved to Hal being a real person with real feelings but unable to communicate, his voice replaced by horrible screams.

Some reviewers have said that the whole book is meant as a critique of postmodern society. I've previously cited Wallace's [critique of irony](#) and I find this passage, cited on the same site linked to above, especially enlightening:



The next literary “rebels” in this country might well emerge as some weird bunch of anti-rebels, born oglers who dare somehow to back away from ironic watching, who have the childish gall actually to endorse and instantiate single-entendre principles. Who treat of plain old untrendy human troubles and emotions in U.S. life with reverence and conviction. Who eschew self-consciousness and hip fatigue. These anti-rebels would be outdated, of course, before they even started. Dead on the page. Too sincere. Clearly repressed. Backward, quaint, naive, anachronistic. Maybe that’ll be the point. Maybe that’s why they they’ll be the next real rebels. Real rebels, as far as I can see, risk disapproval. The old postmodern insurgents risked the gasp and squeal: shock, disgust, outrage, censorship, accusations of socialism, anarchism, nihilism. Today’s risks are different. The new rebels might be artists willing to risk the yawn, the rolled eyes, the cool smile, the nudged ribs, the parody of gifted ironists, the “oh how banal.” To risk accusations of sentimentality, melodrama. Of overcredulity. Of softness. Of willingness to be suckered by a world of lurkers and starers who fear gaze and ridicule above imprisonment without law.

Under this theory, younger-Hal starts off as postmodern, totally unengaged with the world except mechanically; during this phase of his life, he is considered witty, lovable, and successful. Then, after some mysterious intervention by his father (whose initials are, significantly, J.O.I.) he becomes a whole human being again, but his attempts to communicate honest feelings are met with revulsion and horror. Under this theory, ONAN and wireheading are the inexorable results of turning further and further inward and denying that engagement with an objective reality is anything particularly desirable.

I like this theory, but it has one problem, which is that *Infinite Jest* is an obviously, unabashedly postmodern book. It is the *most* postmodern book. Maybe this is the joke, that it’s turning postmodernism’s critical methods onto a critique of postmodernism itself. But that seems like kind of an easy gag. Is there something a little deeper going on?

Well, my hands-down favorite part of the book was the description of “Eschaton”, a game played by drawing a map of the world on a tennis court, setting up various tennis players as Great Powers, and then simulating a nuclear war through a combination of extremely complicated math equations and tennis balls as nuclear missiles. The game goes well enough until it starts snowing, and the players get into

an argument about whether they need to adjust for the snow when calculating the damage done by their nukes. I can't resist quoting an abbreviated chunk:

"It's snowing on the goddamn map, not the territory, you dick!" Pemulis yells at Penn, whose lower lip is out and quivering. Pemulis's face is the face of a man who will someday need blood-pressure medication, a constitution the Tenuate doesn't help one bit. Troeltsch is sitting up straight and speaking very intensely and quietly into his headset.

"Except isn't the territory the real world, quote unquote, though?" Axford calls across to Pemulis, who's pacing like the fence is between him and some sort of prey. Axford knows quite well Pemulis can be fucked with when he's like this: when he's hot he always cools down and becomes contrite.

"The real world's what the map here stands for!" Lord lifts his head from the Yushityuand cries over at Axhandle, trying to please Pemulis.

"Kind of looks like real-world-type snow from here, M.P.," Axford calls out. Struck finally falls out of his chair with a clunk but his legs are still somehow entangled in the legs of the chair. It starts to snow harder, and dark stars of melt begin to multiply and then merge all over the courts. Otis Lord is trying to type and wipe his nose on his sleeve at the same time. J. Gopnik and K. McKenna are running around well outside their assigned quadrants with their tongues outstretched. "Real-world snow isn't a factor if it's falling on the fucking map!"

And then it gets worse. The Iranian player decides that instead of launching his nukes at America's cities or military bases, he will assassinate the American president directly by hitting the American player with a tennis ball:

Just outside the theater's fence, Pemulis is bug-eyed with fury – not impossibly 'drine-aggravated – and is literally jumping up and down in one spot so hard that his yachting cap jumps slightly off his head with each impact, which Troeltsch and Axford confer and agree they have previously seen occur only in animated cartoons. Pemulis howls that Lord is in his vacillation appeasing Ingersoll in Ingersoll's effort to fatally fuck with the very breath and bread of Eschaton. Players themselves can't be valid targets. Players aren't

inside the goddamn game. Players are part of the apparatus of the game. They're part of the map. It's snowing on the players but not on the territory. They're part of the map, not the cluster-fucking territory. You can only launch against the territory. Not against the map. It's like the one ground-rule boundary that keeps Eschaton from degenerating into chaos. Eschaton gentlemen is about logic and axiom and mathematical probity and discipline and verity and order. You do not get points for hitting anybody real. Only the gear that maps what's real. Pemulis keeps looking back over his shoulder to the pavilion and screaming.

This scene has been justly described as "a history of literary postmodernism under the guise of geeks throwing tennis balls at each other". Postmodernism is an attempt to blur the boundaries between a text and the world.

But what Wallace seems to dislike is the postmodernist claim that therefore the world has no privileged status and that it's *all* just text – this seems akin to the O.N.A.N.ism of the book or the original deadened version of Hal. If I had to take a guess as to why *Infinite Jest* is postmodernist, I would say that it is to blur the boundaries between the world and the text in favor of reality.

It seems relatively clear that James Orin Incandenza, the haunted but brilliant postmodernist director who produced the film *Infinite Jest*, is a standin for David Foster Wallace, the haunted but brilliant postmodernist author who produced the book *Infinite Jest* (after all, as my roommate would point out, both of them have three names). It also seems that the two *Infinite Jest*s are supposed to be the same – and several readers have noted that, like the viewers of the fatal video, they started rereading *Infinite Jest* as soon as they finished it.

So, as one reviewer I read put it, perhaps just as the film was James' attempt to produce something that could communicate with the true core of Hal and bring him back to the real world, so the book is Foster Wallace's attempt to communicate with the true core beneath postmodernist society and reach in and drag it back to reality.

There are other, weirder referential loops. James Incandenza commits suicide by sticking his head in a microwave (possibly meant as a quick-consumerist-culture equivalent of Sylvia Plath sticking her head in an oven) after trying to give up alcohol. David Foster Wallace ended up committing suicide after trying to give up antidepressants.

And, okay, for this part to make sense I need to mention that the ending of *Infinite Jest* is *really mysterious*. I spent a little while searching the Internet trying to find a good explanation, and I found exactly one – one person who was able to put all the clues together and actually come up with a narrative that made sense to me. That was [this blog post by Aaron Swartz](#). The only good online explanation of a book about a depressed Boston technical genius who commits suicide, a book about an attempt to spread banned information and the government's attempt to crack down on it – was written by Aaron Swartz. This is so *Infinite Jest*-ish that it is impossible for me not to think of it as an appendix to the book.

When I reviewed *Illuminatus*, I said it was as good as a book, but genius as a carefully designed machine to alter thought-processes. I will say the same about *Infinite Jest*, although having only read it once I am not confident that I have absorbed anything like a full dose of its medication.

But essentially, I think it's a book about people seeking meaningless entertainment in a way that doesn't truly involve interpersonal communication, in the form of a book that seems like meaningless entertainment but which is so complicated and so hard to understand that the attempt eventually produces true interpersonal communication with the author about this idea, completing a complicated but only partially self-referential loop.

[Infinite Jest](#) on Amazon.

(I apologize for the length of this blog post. It was aimed at people who have read or are considering reading *Infinite Jest*, which should be a group unusually tolerant of verbosity.)

# Book Review: Red Plenty

I.

I decided to read [Red Plenty](#) because my biggest gripe after reading [Singer's book on Marx](#) was that Marx refused to plan how communism would actually work, instead preferring to leave the entire matter for the World-Spirit to sort out. But almost everything that interests me about Communism falls under the category of "how communism would actually work". Red Plenty, a semi-fictionalized account of the history of socialist economic planning, seemed like a natural follow-up.

But I'd had it on my List Of Things To Read for even longer than that, ever after stumbling across a quote from it on some blog or other:

Marx had drawn a nightmare picture of what happened to human life under capitalism, when everything was produced only in order to be exchanged; when true qualities and uses dropped away, and the human power of making and doing itself became only an object to be traded.

Then the makers and the things made turned alike into commodities, and the motion of society turned into a kind of zombie dance, a grim cavorting whirl in which objects and people blurred together till the objects were half alive and the people were half dead. Stock-market prices acted back upon the world as if they were independent powers, requiring factories to be opened or closed, real human beings to work or rest, hurry or dawdle; and they, having given the transfusion that made the stock prices come alive, felt their flesh go cold and impersonal on them, mere mechanisms for chunking out the man-hours. Living money and dying humans, metal as tender as skin and skin as hard as metal, taking hands, and dancing round, and round, and round, with no way ever of stopping; the quickened and the deadened, whirling on.

And what would be the alternative? The consciously arranged alternative? A dance of another nature. A dance to the music of use, where every step fulfilled some real need, did some tangible good, and no matter how fast the dancers spun, they moved easily, because they moved to a human measure, intelligible to all, chosen

by all.

Needless to say, this is Relevant To My Interests, which include among them [poetic allegories for coordination problems](#). And I was not disappointed.

The book begins:

Strange as it may seem, the gray, oppressive USSR was founded on a fairy tale. It was built on the twentieth-century magic called “the planned economy,” which was going to gush forth an abundance of good things that the lands of capitalism could never match. And just for a little while, in the heady years of the late 1950s, the magic seemed to be working. Red Plenty is about that moment in history, and how it came, and how it went away; about the brief era when, under the rash leadership of Khrushchev, the Soviet Union looked forward to a future of rich communists and envious capitalists, when Moscow would out-glitter Manhattan and every Lada would be better engineered than a Porsche. It’s about the scientists who did their genuinely brilliant best to make the dream come true, to give the tyranny its happy ending.

And this was the first interesting thing I learned.

There’s a very settled modern explanation of the conflict between capitalism and communism. Capitalism is good at growing the economy and making countries rich. Communism is good at caring for the poor and promoting equality. So your choice between capitalism and communism is a trade-off between those two things.

But for at least the first fifty years of the Cold War, the Soviets would not have come *close* to granting you that these are the premises on which the battle must be fought. They were officially quite certain that any day now Communism was going to prove itself *better* at economic growth, better at making people rich quickly, than capitalism. Even unofficially, most of their leaders and economists were pretty certain of it. And for a little while, even their capitalist enemies secretly worried they were right.

The arguments are easy to understand. Under capitalism, plutocrats use the profits of industry to buy giant yachts for themselves. Under communism, the profits can be reinvested back into the industry to build more factories or to make production more efficient, increasing growth rate.

Under capitalism, everyone is competing with each other, and much of your budget is spent on zero-sum games like advertising and marketing and sales to give you a leg up over your competition. Under communism, there is no need to play these zero-sum games and that part of the budget can be reinvested to grow the industry more quickly.

Under capitalism, everyone is working against everyone else. If Ford discovers a clever new car-manufacturing technique, their first impulse is to patent it so GM can't use it, and GM's first impulse is to hire thousands of lawyers to try to thwart that attempt. Under communism, everyone is working together, so if one car-manufacturing collective discovers a new technique they send their blueprints to all the other car-manufacturing collectives in order to help them out. So in capitalism, each companies will possess a few individual advances, but under communism every collective will have every advance, and so be more productive.

These arguments make a lot of sense to me, and they *definitely* made sense to the Communists of the first half of the 20th century. As a result, they were confident of overtaking capitalism. They realized that they'd started with a handicap – czarist Russia had been dirt poor and almost without an industrial base – and that they'd faced a further handicap in having the Nazis burn half their country during World War II – but they figured as soon as they overcame these handicaps their natural advantages would let them leap ahead of the West in only a couple of decades. The great Russian advances of the 50s – Sputnik, Gagarin, etc – were seen as evidence that this was already starting to come true in certain fields.

And then it all went wrong.

II.

Grant that communism really does have the above advantages over capitalism. What advantage does capitalism have?

The classic answer is that during communism no one wants to work hard. They do as little as they can get away with, then slack off because they don't reap the rewards of their own labor.

*Red Plenty* doesn't really have theses. In fact, it's not really a non-fiction work at all. It's a dramatized series of episodes in the lives of Russian workers, politicians, and academics, intended to come together to paint a picture of how the Soviet economy worked.

But if I can impose a thesis upon the text, I don't think it agreed with this. In certain cases, Russians were *very* well-incentivized by things like "We will kill you unless you meet the production target". Later, when the state became less murder-happy, the threat of death faded to threats of demotions, ruined careers, and transfer to backwater provinces. And there were equal incentives, in the form of promotion or transfer to a desirable location such as Moscow, for overperformance. There were even monetary bonuses, although money bought a lot less than it did in capitalist countries and was universally considered inferior to status in terms of purchasing power. Yes, there were [Goodhart's Law](#) type issues going on – if you're being judged per product, better produce ten million defective products than 9,999,999 excellent products – but that wasn't the crux of the problem.

*Red Plenty* presented the problem with the Soviet economy primarily as one of allocation. You could have a perfectly good factory that could be producing lots of useful things if only you had one extra eensy-weensy part, but unless the higher-ups had allocated you that part, you were out of luck. If that part happened to break, getting a new one would depend on how much clout you (and your superiors) pulled versus how much clout other people who wanted parts (and their superiors) held.

The book illustrated this reality with a series of stories (I'm not sure how many of these were true, versus useful dramatizations). In one, a pig farmer in Siberia needed wood in order to build sties for his pigs so they wouldn't freeze – if they froze, he would fail to meet his production target and his career would be ruined. The government, which mostly dealt with pig farming in more temperate areas, hadn't accounted for this and so hadn't allocated him any wood, and he didn't have enough clout with officials to request some. A factory nearby had extra wood they weren't using and were going to burn because it was too much trouble to figure out how to get it back to the government for re-allocation. The farmer bought the wood from the factory in an under-the-table deal. He was caught, which usually wouldn't have been a problem because *everybody* did this sort of thing and it was kind of the "smoking marijuana while white" of Soviet offenses. But at that particular moment the Party higher-ups in the area wanted to make an example of someone in order to look like they were on top of their game to *their* higher-ups. The pig farmer was sentenced to years of hard labor.

A tire factory had been assigned a tire-making machine that could



make 100,000 tires a year, but the government had gotten confused and assigned them a production quota of 150,000 tires a year. The factory leaders were stuck, because if they tried to correct the government they would look like they were challenging their superiors and get in trouble, but if they failed to meet the impossible quota, they would all get demoted and their careers would come to an end. They learned that the tire-making-machine-making company had recently invented a new model that really *could* make 150,000 tires a year. In the spirit of [Chen Sheng](#), they decided that since the penalty for missing their quota was something terrible and the penalty for sabotage was also something terrible, they might as well take their chances and destroy their own machinery in the hopes the government sent them the new improved machine as a replacement. To their delight, the government believed their story about an “accident” and allotted them a new tire-making machine. *However*, the tire-making-machine-making company had decided to cancel production of their new model. You see, the new model, although more powerful, weighed less than the old machine, and the government was measuring their production *by kilogram of machine*. So it was easier for them to just continue making the old less powerful machine. The tire factory was allocated another machine that could only make 100,000 tires a year and was back in the same quandary they’d started with.

It’s easy to see how all of these problems could have been solved (or would never have come up) in a capitalist economy, with its use of prices set by supply and demand as an allocation mechanism. And it’s easy to see how thoroughly the Soviet economy was sabotaging itself by avoiding such prices.

### III.

The “hero” of *Red Plenty* – although most of the vignettes didn’t involve him directly – was Leonid Kantorovich, a Soviet mathematician who thought he could solve the problem. He invented the technique of [linear programming](#), a method of solving optimization problems perfectly suited to allocating resources throughout an economy. He immediately realized its potential and wrote a nice letter to Stalin politely suggesting his current method of doing economics was wrong and he could do better – this during a time when everyone else in Russia was desperately trying to avoid having Stalin notice them because he tended to kill anyone he noticed. Luckily the letter was intercepted by a kindly mid-level official, who kept it away from Stalin and warehoused Kantorovich in a university somewhere.

During the “Khrushchev thaw”, Kantorovich started getting some more politically adept followers, the higher-ups started taking note, and there was a real movement to get his ideas implemented. A few industries were run on Kantorovichian principles as a test case and seemed to do pretty well. There was an inevitable backlash. Opponents accused the linear programmers of being capitalists-in-disguise, which wasn’t helped by their use of something called “shadow prices”. But the combination of their own political adeptness and some high-level support from Khrushchev – who alone of all the Soviet leaders seemed to really believe in his own cause and be a pretty okay guy – put them within arm’s reach of getting their plans implemented.

But when elements of linear programming were adopted, they were adopted piecemeal and toothless. The book places the blame on Alexei Kosygen, who implemented [a bunch of economic reforms that failed](#), in a chapter that makes it clear exactly how constrained the Soviet leadership really was. You hear about Stalin, you imagine these guys having total power, but in reality they walked a narrow line, and all these “shadow prices” required more political capital than they were willing to mobilize, even when they thought Kantorovich might have a point.

#### IV.

In the end, I was left with two contradictory impressions from the book.

First, amazement that the Soviet economy got as far as it did, given how incredibly screwed up it was. You hear about how many stupid things were going on at every level, and you think: *This was the country that built Sputnik and Mir? This was the country that almost buried us beneath the tide of history?* It is a credit to the Russian people that they were able to build so much as a screwdriver in such conditions, let alone a space station.

But second, a sense of what could have been. What if Stalin *hadn’t* murdered most of the competent people? What if entire fields of science *hadn’t* been banned for silly reasons? What if Kantorovich *had* been able to make the Soviet leadership base its economic planning around linear programming? How might history have turned out differently?

One of the book’s most frequently-hammered-in points was that there was a brief moment, back during the 1950s, when everything seemed

to be going right for Russia. Its year-on-year GDP growth (as estimated by impartial outside observers) was somewhere between 7 to 10%. Starvation was going down. Luxuries were going up. Kantorovich was fixing entire industries with his linear programming methods. Then Khrushchev made a series of crazy loose cannon decisions, he was ousted by Brezhnev, Kantorovich was pushed aside and ignored, the “Khrushchev thaw” was reversed and tightened up again, and everything stagnated for the next twenty years.

If Khrushchev had stuck around, if Kantorovich had succeeded, might the common knowledge that Communism is terrible at producing material prosperity look a little different?

The book very briefly mentioned a competing theory of resource allocation promoted by Victor Glushkov, a cyberneticist in Ukraine. He thought he could use computers – then a very new technology – to calculate optimal allocation for everyone. He failed to navigate the political seas as adroitly as Kantorovich’s faction, and the killing blow was a paper that pointed out that for him to do everything *really* correctly would take a hundred million years of computing time.

That was in 1960. If computing power doubles every two years, we’ve undergone about 25 doubling times since then, suggesting that we ought to be able to perform Glushkov’s calculations in three years – or three days, if we give him a lab of three hundred sixty five computers to work with. There could have been this entire field of centralized economic planning. Maybe it would have continued to underperform prices. Or maybe after decades of trial and error across the entire Soviet Union, it could have caught up. We’ll never know. Glushkov and Kantorovich were marginalized and left to play around with toy problems until their deaths in the 80s, and as far as I know their ideas were never developed further in the context of a national planned economy.

V.

One of the ways people like insulting smart people, or rational people, or scientists, is by telling them they’re the type of people who are attracted to Communism. “Oh, you think you can control and understand everything, just like the Communists did.”

And I had always thought this was a pretty awful insult. The people I know who most identify as rationalists, or scientifically/technically minded, are also most likely to be libertarian. So there, case dismissed,

everybody go home.

This book was the first time that I, as a person who considers himself rationally/technically minded, realized that I was super attracted to Communism.

Here were people who had a clear view of the problems of human civilization – all the greed, all the waste, all the zero-sum games. Who had the entire population united around a vision of a better future, whose backers could direct the entire state to better serve the goal. All they needed was to solve the engineering challenges, to solve the equations, and there they were, at the golden future. And they were smart enough to be worthy of the problem – Glushkov invented cybernetics, Kantorovich won a Nobel Prize in Economics.

And in the end, they never got the chance. There's an interpretation of Communism as a refutation of social science, here were these people who probably knew some social science, but did it help them run a state, no it didn't. But from the little I learned about Soviet history from this book, this seems diametrically wrong. The Soviets had practically no social science. They hated social science. You would think they would at least have some good Marxists, but apparently Stalin killed all of them just in case they might come up with versions of Marxism he didn't like, and in terms of a vibrant scholarly field it never recovered. Economics was tainted with its association with capitalism from the very beginning, and when it happened at all it was done by non-professionals. Kantorovich was a mathematician by training; Glushkov a computer scientist.

Soviet Communism isn't what happens when you let nerds run a country, it's what happens when you kill all the nerds who are experts in country-running, bring in nerds from unrelated fields to replace them, then make nice noises at those nerds in principle while completely ignoring them in practice. Also, you ban all Jews from positions of importance, because fuck you.

Baggy two-piece suits are not the obvious costume for philosopher kings: but that, in theory, was what the apparatchiks who rule the Soviet Union in the 1960s were supposed to be. Lenin's state made the same bet that Plato had twenty-five centuries earlier, when he proposed that enlightened intelligence gives absolute powers would serve the public good better than the grubby politicking of republics.

On paper, the USSR was a republic, a grand multi-ethnic federation of republics indeed and its constitutions (there were several) guaranteed its citizens all manner of civil rights. But in truth the Soviet system was utterly unsympathetic to the idea of rights, if you meant by them any suggestion that the two hundred million men, women and children who inhabited the Soviet Union should be autonomously fixing on two hundred million separate directions in which to pursue happiness. This was a society with just one programme for happiness, which had been declared to be scientific and therefore was as factual as gravity.

But the Soviet experiment had run into exactly the difficulty that Plato's admirers encountered, back in the fifth century BC, when they attempted to mould philosophical monarchies for Syracuse and Macedonia. The recipe called for rule by heavily-armed virtue—or in the Leninist case, not exactly virtue, but a sort of intentionally post-ethical counterpart to it, self-righteously brutal. Wisdom was to be set where it could be ruthless. Once such a system existed, though, the qualities required to rise in it had much more to do with ruthlessness than wisdom. Lenin's core of Bolsheviks, and the socialists like Trotsky who joined them, were many of them highly educated people, literate in multiple European languages, learned in the scholastic traditions of Marxism; and they preserved these attributes even as they murdered and lied and tortured and terrorized. They were social scientists who thought principle required them to behave like gangsters. But their successors – the vydvizhentsy who refilled the Central Committee in the thirties – were not the most selfless people in Soviet society, or the most principled, or the most scrupulous. They were the most ambitious, the most domineering, the most manipulative, the most greedy, the most sycophantic: people whose adherence to Bolshevik ideas was inseparable from the power that came with them. Gradually their loyalty to the ideas became more and more instrumental, more and more a matter of what the ideas would let them grip in their two hands...

Stalin had been a gangster who really believed he was a social scientist. Khrushchev was a gangster who hoped he was a social scientist. But the moment was drawing irresistibly closer when the idealism would rot away by one more degree, and the Soviet Union would be governed by gangsters who were only pretending to be social scientists.

And in the end it all failed miserably:

The Soviet economy did not move on from coal and steel and cement to plastics and microelectronics and software design, except in a very few military applications. It continued to compete with what capitalism had been doing in the 1930s, not with what it was doing now. It continued to suck resources and human labour in vast quantities into a heavy-industrial sector which had once been intended to exist as a springboard for something else, but which by now had become its own justification. Soviet industry in its last decades existed because it existed, an empire of inertia expanding ever more slowly, yet attaining the wretched distinction of absorbing more of the total effort of the economy that hosted it than heavy industry has ever done anywhere else in human history, before or since. Every year it produced goods that less and less corresponded to human needs, and whatever it once started producing, it tended to go on producing ad infinitum, since it possessed no effective stop signals except ruthless commands from above, and the people at the top no longer did ruthless, in the economic sphere. The control system for industry grew more and more erratic, the information flowing back to the planners grew more and more corrupt. And the activity of industry, all that human time and machine time it used up, added less and less value to the raw materials it sucked in. Maybe no value. Maybe less than none. One economist has argued that, by the end, it was actively destroying value; it had become a system for spoiling perfectly good materials by turning them into objects no one wanted.

I don't know if this paragraph was intentionally written to contrast with the paragraph at the top, the one about the zombie dance of capitalism. But it is certainly instructive to make such a contrast. The Soviets had originally been inspired by this fear of economics going out of control, abandoning the human beings whose lives it was supposed to improve. In capitalist countries, people existed for the sake of the economy, but under Soviet communism, the economy was going to exist only for the sake of the people.

(accidental [Russian reversal](#): the best kind of Russian reversal!)

And instead, they ended up taking "people existing for the sake of the economy" to entirely new and tragic extremes, people being sent to the gulags or killed because they didn't meet the targets for some product nobody wanted that was listed on a Five-Year Plan. Spoiling good raw

materials for the sake of being able to tell Party bosses and the world “Look at us! We are doing Industry!” [Moloch](#) had done some weird judo move on the Soviets’ attempt to destroy him, and he had ended up stronger than ever.

The book’s greatest flaw is that it never did get into the details of the math – or even more than a few-sentence summary of the math – and so I was left confused as to whether anything else had been possible, whether Kantorovich and Glushkov really could have saved the vision of prosperity if they’d been allowed to do so. Nevertheless, the Soviets earned my sympathy and respect in a way Marx so far has not, merely by acknowledging that the problem existed and through the existence of a few good people who tried their best to solve it.

# Book Review: On The Road

I.

On the Road is a terrible book about terrible people. Jack Kerouac and his terrible friends drive across the US about seven zillion times for no particular reason, getting in car accidents and stealing stuff and screwing women whom they promise to marry and then don't.

But this is supposed to be okay, because they are *visionaries*. Their vision is to use the words "holy", "ecstatic", and "angelic" at least three times to describe every object between Toledo and Bakersfield. They don't pass a *barn*, they pass a holy vision of a barn, a barn such as there must have been when the world was young, a barn whose angelic red and beatific white send them into mad ecstasies. They don't almost hit a *cow*, they almost hit a holy primordial cow, the cow of all the earth, the cow whose dreamlike ecstatic mooing brings them to the brink of a rebirth such as no one has ever known.

Jack Kerouac and his terrible friends are brought to the brinks of a lot of things, actually. Aside from stealing things and screwing women whom they promise to marry and then don't, being brought to the brink of things is one of their main pastimes. Enlightenment, revelation, truth, the real meaning of America, the ultimate, the sacred – if it has a brink, they will come to it. Crucially, they never cross that brink or gain any lasting knowledge or satisfaction from the experience. Theirs is a religion whose object of worship is the burst of intense emotion, the sudden drenching of their brain in happy chemicals that come and go without any lasting effect except pages full of the words "holy", "ecstatic", and "angelic".

The high priest of this religion is Kerouac's friend Dean Moriarty. Kerouac cannot frickin shut up about Dean Moriarty. Obviously he is "holy" and "ecstatic" and "angelic" and "mad" and "visionary", but for Dean, Kerouac pulls out all the stops. He is "a new kind of American saint", "a burning shuddering frightful Angel", with intelligence "formal and shining and complete".

Who is this superman, this hero?

His specialty was stealing cars, gunning for girls coming out of high school in the afternoon, driving them out to the mountains,



making them, and coming back to sleep in any available hotel bathtub in town.

Okay, but you have overwrought religious adjectives to describe all of this, right?

[Dean's] "criminality" was not something that sulked and sneered; it was a wild yea-saying overburst of American joy; it was Western, the west wind, an ode from the Plains, something new, long prophesied, long a-coming.

I feel like once you steal like a dozen cars in the space of a single book, you lose the right to have the word "criminality" in scare quotes.

But please, tell us more:

[Ed and Dean] had just been laid off from the railroad. Ed had met a girl called Galatea who was living in San Francisco on her savings. These two mindless cads decided to bring the girl along [on one of their seven zillion pointless cross-country trips] and have her foot the bill. Ed cajoled and pleaded; she wouldn't go unless he married her. In a whirlwind few days Ed Dunkel married Galatea, with Dean rushing around to get the necessary papers, and a few days before Christmas they rolled out of San Francisco at seventy miles per, headed for LA and the snowless southern road. In LA they picked up a sailor in a travel bureau and took him along for fifteen dollars' worth of gas...All along the way Galatea Dunkel, Ed's new wife, kept complaining that she was tired and wanted to sleep in a motel. If this kept up they'd spend all her money long before Virginia. Two nights she forced a stop and blew tens on motels. By the time they got to Tucson she was broke. Dean and Ed gave her the slip in a hotel lobby and resumed the voyage alone, with the sailor, and without a qualm.

All right, Jack, how are you gonna justify *this* one?

Dean was simply a youth tremendously excited with life, and though he was a con-man he was only conning because he wanted so much to live and to get involved with people who would otherwise pay no attention to him.

I too enjoy life. Yet somehow this has never led me to get my friend to marry a woman in order to take her life savings, then leave her stranded in a strange city five hundred miles from home after the

money runs out.

Jack Kerouac's relationship with Dean can best be described as "enabler". He rarely commits any great misdeeds himself. He's just along for the ride [usually literally, generally in flagrant contravention of all applicable traffic laws] with Dean, watching him destroy people's lives, doing nothing about it, and then going into rhapsodies about how free-spirited and unencumbered and holy and mad and visionary it all is.

There's a weird tension here, because Jack is determined to totally ignore the moral issues. He brings this kind of stuff up only incidentally, as Exhibits A and B to support his case that Dean Moriarty is the freest and most perfect and most wonderful human being on Earth, and sort of moves past it before it becomes awkward. An enthusiastic reader, caught up in the spirit of the book, might easily miss it. The only place it is ever made explicit is page 185, when Galatea (who has since found her way back to San Francisco) confronts Dean about the trail of broken lives he's left behind him, saying:

You have absolutely no regard for anybody but yourself and your damned kicks. All you think about is what's hanging between your legs and how much money or fun you can get out of people and then you just throw them aside. Not only that, but you're silly about it. It never occurs to you that life is serious and there are people trying to make something decent out of it instead of just goofing all the time."

This, 185 pages in, is the first and last time anyone seriously tries to criticize Dean. Dean has stolen about a dozen cars. He has married one woman, had an affair with another, played the two of them off against each other, divorced the first, married the second, deserted the second with a young child whom she has no money to support, gone back to the first, dumped the first again so suddenly she has to become a prostitute to make ends meet. Later he will go back to the second, beat the first so hard that he injures his thumb and has to get it amputated, break into the second's house with a gun to kill her but change his mind, desert the second again also with a child whom she has no money to support, start dating a third, desert the third *also* with a child whom she has no money to support, and go back to the second, all while having like twenty or thirty lesser affairs on the side. As quoted above, he dumped poor Galatea in Tucson, and later he will dump Jack in Mexico because Jack has gotten deathly ill and this is cramping his style.

So Galatea's complaint is not exactly coming out of thin air.

Jack, someone has just accused your man-crush of being selfish and goofing off all the time. Care to defend him with overwrought religious adjectives?

That's what Dean was, the HOLY GOOF...he was BEAT, the root, the soul of beatific. What was he knowing? He tried all in his power to tell me what he was knowing, and they envied that about me, my position at his side, defending him and drinking him in as they once tried to do

Right. That's the problem. People are just *jealous*, because holy ecstatic angelic Dean Moriarty likes you more than he likes them. Get a life.

II.

But of course getting a life – in the sense of a home, a stable relationship, a steady job, et cetera – is exactly what all the characters in *On The Road* are desperately trying to avoid.

"Beat" has many meanings, but one of them is supposed to be "beaten down". The characters consider themselves oppressed, on the receiving end of a system that grinds them up and spits them out. This is productively compared with their total lack of any actual oppression whatsoever.

I don't know if it's the time period or merely their personal charm, but Kerouac et al's ability to do anything (and anyone) and get away with it is astounding. Several of their titular cross-country trips are performed entirely by hitch-hiking, with their drivers often willing to buy them food along the way. Another is performed in some sort of incredibly ritzy Cadillac limo, because a rich man wants his Cadillac transported from Denver to Chicago, Dean volunteers, and the rich man moronically accepts. Dean of course starts driving at 110 mph, gets in an accident, and ends up with the car half destroyed. Once in the city, Dean decides this is a good way to pick up girls, and:

In his mad frenzy Dean backed up smack on hydrants and tittered maniacally. By nine o' clock the car was an utter wreck: the brakes weren't working any more; the fenders were stove in; the rods were rattling. Dean couldn't stop it at red lights; it kept kicking convulsively over the roadway. It had paid the price of the night. It

was a muddy boot and no longer a shiny limousine... 'Wheel!' It was now time to return the Cadillac to the owner, who lived out on Lake Shore Drive in a swank apartment with an enormous garage underneath managed by oil-scarred Negroes. The mechanic did not recognize the Cadillac. We handed the papers over. He scratched his head at the sight of it. We had to get out fast. We did. We took a bus back to downtown Chicago and that was that. And we never heard a word from our Chicago baron about the condition of his car, in spite of the fact that he had our addresses and could have complained.

Even more interesting than their ease of transportation to me was their ease at getting jobs. This is so obvious to them it is left unspoken. Whenever their money runs out, be they in Truckee or Texas or Toledo, they just hop over to the nearest farm or factory or whatever, say "Job, please!" and are earning back their depleted savings in no time. This is really the crux of their way of life. They don't feel bound to any one place, because traveling isn't really a risk. Be it for a week or six months, there's always going to be work waiting for them when they need it. It doesn't matter that Dean has no college degree, or a criminal history a mile long, or is only going to be in town a couple of weeks. This just seems to be a background assumption. It is most obvious when it is violated; the times it takes an entire week to find a job, and they are complaining bitterly. Or the time the only jobs available are backbreaking farm labor, and so Jack moves on (of course abandoning the girl he is with at the time) to greener pastures that he knows are waiting.

Even more interesting than their ease of employment is their ease with women. This is unintentionally a feminist novel, in that once you read it (at least from a modern perspective) you end up realizing the vast cultural shift that had to (has to?) take place in order to protect women from people like the authors. Poor Galatea Dunkel seems to have been more of the rule than the exception – go find a pretty girl, tell her you love her, deflower her, then steal a car and drive off to do it to someone else, leaving her unmarried and maybe with a kid to support. Then the next time you're back in town, look her up, give her a fake apology in order to calm her down enough for her to be willing to have sex with you again, and repeat the entire process. Here is a typical encounter with a pretty girl:

Not five nights later we went to a party in New York and I saw a girl called Inez and told her I had a friend with me that she ought

to meet sometime. I was drunk and told her he was a cowboy. “Oh, I’ve always wanted to meet a cowboy.”

“Dean?” I yelled across the party. “Come over here, man!” Dean came bashfully over. An hour later, in the drunkenness and chiciness of the party, he was kneeling on the floor with his chin on her belly and telling her and promising her everything and sweating. She was a big, sexy brunette – as Garcia said, something straight out of Degas, and generally like a beautiful Parisian coquette. In a matter of days they were dickering with Camille in San Francisco by long-distance telephone for the necessary divorce papers so they could get married. Not only that, but a few months later Camille gave birth to Dean’s second baby, the result of a few nights’ rapport early in the year. And another matter of months and Inez had a baby. With one illegitimate child on the West somewhere, Dean then had four little ones, and not a cent, and was all troubles and ecstasy and speed as ever.

In case you’re wondering, Dean then runs off to Mexico, leaves Inez behind, screws a bunch of Mexican women, and eventually gets back with Camille, who is happy to have him. Seriously, if I had read this book when I was writing [Radicalizing The Romanceless](#), Dean (and his friends) would have been right up there with Henry as Exhibit B. The only punishment he ever gets for his misadventures is hitting one girlfriend in the face so hard that he breaks his own thumb, which gets infected and has to be amputated. Human justice has failed so miserably, one feels, that God has to personally step in.

As bad as the gender stuff is, the race stuff is worse. This is 1950-something, so I’m prepared for a lot of awful stuff regarding race. But this is totally *different* awful stuff regarding race than I expected. I have never been able to get upset over “exoticization” and “Orientalism” before, but this book reached new lows for me:

At lilac evening I walked with every muscle aching among the lights of 27th and Welton in the Denver colored section, wishing I were a Negro, feeling that the best the white world had offered was not enough ecstasy for me, not enough life, joy, kicks, darkness, music, not enough night. I stopped at a little shack where a man sold hot red chili in paper containers; I bought some and ate it, strolling in the dark mysterious streets. I wished I were a Denver Mexican, or even a poor overworked Jap, anything but what I was so drearily, a “white man” disillusioned. All my life I’d had white ambitions; that was why I’d abandoned a good woman

like Terry in the San Joaquin Valley...a gang of colored women came by, and one of the young ones detached herself from motherlike elders and came to me fast – “Hello Joe!” and suddenly saw it wasn’t Joe, and ran back blushing. I wished I were Joe. I was only myself, sad, strolling in this violet dark, this unbearably sweet night, wishing I could exchange worlds with the happy, true-hearted, ecstatic Negroes of America.

Negroes are holy and ecstatic. But only in the same way barns and cows are holy and ecstatic. One gets the suspicion that Jack Kerouac is not exactly interacting with any of this stuff, so much as using it as something he can have his overwrought religious feelings about.

The “heroes” of *On The Road* consider themselves ill-done by and beaten-down. But they are people who can go anywhere they want for free, get a job any time they want, hook up with any girl in the country, and be so clueless about the world that they’re pretty sure being a 1950s black person is a laugh a minute.

*On The Road* seems to be a picture of a high-trust society. Drivers assume hitchhikers are trustworthy and will take them anywhere. Women assume men are trustworthy and will accept any promise. Employers assume workers are trustworthy and don’t bother with background checks. It’s pretty neat.

But *On The Road* is, most importantly, a picture of a high-trust society collapsing. And it’s collapsing precisely because the book’s protagonists are going around defecting against everyone they meet at a hundred ten miles an hour.

### III.

The viewpoint of a character in a book is not necessarily the viewpoint of its author. One can write about terrible people doing terrible things and not necessarily endorse it. That having been said, it’s very hard to read Jack Kerouac-the-author as differing very much from Jack-Kerouac-the-character in his opinions. He still has a raging man-crush on Dean and thinks that he is some kind of holy madman who can do no wrong.

The nicest thing I can say about *On The Road* is that perhaps it should be [read backwards](#). It is a paean to a life made without compromise, a life of enjoying the hidden beauty of the world, spent in pursuit of holiness and the exotic. Despite how I probably sound, I really respect

the Beat aesthetic of searching for transcendence and finding it everywhere. There's something to be said for living your life to maximize that kind of thing, especially if everyone else is some kind of boring dispirited factory worker or something. Kerouac wrote around the same time as Sartre; it's not difficult to imagine him as one of the first people saying you needed to try to find your True Self.

Read backwards, there was a time when to spend your twenties traveling the world and sleeping with strange women and having faux mystical experiences was something new and exciting and dangerous and for all anybody knew maybe it held the secret to immense spiritual growth. But from a modern perspective, if Jack and Dean tried the same thing today, they'd be one of about a billion college students and aimless twenty-somethings with exactly the same idea, posting their photos to Instagram tagged "holy", "ecstatic", and "angelic". There's nothing wrong with that. But it doesn't seem like a good stopping-point for a philosophy. It doesn't even seem like good escapism. I'd be willing to tolerate all the pointless criminality if it spoke to the secret things that I've always wanted to do in my hidden heart of hearts, but I'd like to think there's more there than driving back and forth and going to what seem like kind of lackluster parties.

When I [read Marx](#), I thought that his key mistake was a negative view of utopia. That is, utopia is what happens automatically once you overthrow all of the people and structures who are preventing there from being utopia. Just get rid of the capitalists, and the World-Spirit will take care of the rest. The thought that ordinary, fallible, non-World-Spirit humans will have to build the post-revolution world brick by brick, and there's no guarantee they will do any better than the pre-revolutionary humans who did the same, never seems to have occurred to him.

Kerouac was a staunch anti-Communist, but his beat philosophy seems to share the same wellspring. Once you get rid of all the shackles of society in your personal life – once you stop caring about all those squares who want you to have families and homes and careers and non-terrible friends – once you become a holy criminal who isn't bound by the law or other people's needs – then you'll end up with some ecstatic visionary true self. Kerouac claimed he was Catholic, that he was in search of the Catholic God, and that he found Him – but all of his descriptions of such tend to be a couple of minutes of rapture upon seeing some especially pretty woman in a nightclub or some especially dingy San Francisco alley, followed by continuing to be a jerk who feels

driven to travel across the country approximately seven zillion times for no reason.

Like the early Communists, who were always playing up every new factory that opened as the herald of the new age of plenty, in the beginning it's easy to tell yourself your revolution is succeeding, that you are right on the brink of the new age. But at last come the Andropovs and Brezhnevs of the soul, the stagnation and despair and the going through the motions.

Kerouac apparently got married and divorced a couple of times, became an alcoholic, had a bit of a breakdown, and drank himself to death at age 49. Moriarty spent a while in prison on sort-of-trumped-up drug charges, went through a nasty divorce with whichever wife hadn't divorced him already, and died of a likely drug overdose at age 47.

Overall I did not like this book.

If you're writing about a crime spree you were a part of, you ought to show at least a little self-awareness.

Mysticism continues to be a perfectly valid life choice, but I continue to believe if you want to pursue it you [should do it carefully and methodically](#), for example meditating for an hour a day and then going to regular retreats run by spiritual authorities, rather than the counterculture route of taking lots of drugs and having lots of sex and reading some books on Gnosticism and hoping some kind of enlightenment smashes into you.

Professional writing should be limited to about four overwrought religious adjectives per sentence, possibly by law.

And travel and girls are both fun, but *[doctor voice]* should be enjoyed responsibly and in moderation.



## Book Review: House of God

I'm not a big fan of war movies. I liked the first few I watched. It was all downhill from there. They all seem so similar. The Part Where You Bond With Your Squadmates. The Part Where Your Gruff Sergeant Turns Out To Have A Heart After All. The Part Where Your Friend Dies But You Have To Keep Going Anyway. The Part That Consists Of A Stirring Speech.

The problem is that war is very different from everything else, but very much like itself.

Medical internship is also very different from everything else but very much like itself. I already had two examples of it: *Scrubs* and my own experience as a medical intern (I preferred *Scrubs*). So when *every single person in the medical field* told me to read Samuel Shem's [\*House of God\*](#), I deferred. I deferred throughout my own internship, I deferred for another two years of residency afterwards. And then for some reason I finally picked it up a couple of days ago.

This was a *heck* of a book.

On some level it was as predictable as I expected. It hit all of the Important Internship Tropes, like The Part Where Your Attendings Are Cruel, The Part Where Your Patient Dies Because Of Something You Did, The Part Where You Get Camaraderie With Other Interns, The Part Where You First Realize You Are Actually Slightly Competent At Like One Thing And It Is The Best Feeling In The Universe, The Part Where You Realize How Pointless 99% Of The Medical System Is, The Part Where You Have Sex With Hot Nurses, et cetera.

All I can say is that it was really well done. The whole thing had a touch of magical realism, which turns out to be exactly the right genre for a story about medicine. Real medicine is absolutely magical realist. It's a series of bizarre occurrences just on the edge of plausibility happening to incredibly strange people for life-and-death stakes, day after day after day, all within the context of the weirdest and most byzantine bureaucracy known to humankind.

Just in the past week, for example, I had to deal with an aboulomaniac patient – one with a pathological inability to make up his mind. He came to my clinic for treatment, but as soon as he saw me, he decided

he didn't want treatment after all and left. The next day, he was back on my calendar – he'd decided he needed treatment after all – but when his appointment came around, he changed his mind and left again. This happened *five times in five days*. Every day he would phone in asking for an appointment. Every day I would give it to him. Every day he would leave a minute or two before it began. Unsure how to proceed, I sought out my attending. He ignored my questions, pulled me into a side office, took out his cell phone, and started playing me a video. It's a scene from his musical, *The Phantom Of The Psychiatric Unit*, which he's been forcing his interns to rehearse after rounds. I watched, horrified. It was weirdly good.

If I were to write a book about this kind of thing, people would criticize me for being unrealistic. The only way to get away with it is to pass it off as “a touch of magical realism”, and this *The House of God* does to excellent effect.

The story revolves around an obvious author-insert character, Roy Basch MD, who starts his internship year at a hospital called the House of God (apparently a fictionalized version of Beth Israel Hospital in Boston). He goes in with expectations to provide useful medical care to people with serious diseases. Instead, he finds gomers:

“Gomer is an acronym: Get Out of My Emergency Room. It's what you want to say when one's sent in from the nursing home at three A.M.”

“I think that's kind of crass,” said Potts. “Some of us don't feel that way about old people.”

“You think I don't have a grandmother?” asked Fats indignantly. “I do, and she's the cutest dearest, most wonderful old lady. Her matzoh balls float – you have to pin them down to eat them up. Under their force the soup levitates. We eat on ladders, scraping the food off the ceiling. I love...” The Fat Man had to stop, and dabbed the tears from his eyes, and then went on in a soft voice, “I love her very much.”

I thought of my grandfather. I loved him too.

“But gomers are not just dear old people,” said Fats. “Gomers are human beings who have lost what goes into being human beings. They want to die, and we will not let them. We're cruel to the gomers, by saving them, and they're cruel to us, by fighting tooth

and nail against our trying to save them. They hurt us, we hurt them.”

This is where the magical realism starts to come in:

Rokitansky was an old bassett. He’d been a college professor and had suffered a severe stroke. He lay on his bed, strapped down, IV’s going in, catheter coming out. Motionless, paralyzed, eyes closed, breathing comfortably, perhaps dreaming of a bone, or a boy, or of a boy throwing a bone.

“Mr. Rokitansky, how are you doing?” I asked.

Without opening his eyes, after fifteen seconds, in a husky slurred growl from deep down in his smushed brain he said: PURRTY GUD.

Pleased, I asked, “Mr. Rokitansky, what date is it today?”

PURRTY GUD. .

To all my questions, his answer was always the same. I felt sad. A professor, now a vegetable. Again I thought of my grandfather, and got a lump in my throat. Turning to Fats, I said, “This is too sad. He’s going to die.”

“No, he’s not,” said Fats. “He wants to, but he won’t.”

“He can’t go on like this.”

“Sure he can. Listen, Basch, there are a number of LAWS OF THE HOUSE OF GOD. LAW NUMBER ONE: GOMERS DON’T DIE.”

“That’s ridiculous. Of course they die.”

“I’ve never seen it, in a whole year here,” said Fats.

“They have to.”

“They don’t. They go on and on. Young people – like you and me – die, but not the gomers. Never seen it. Not once.”

“Why not?”

“I don’t know. Nobody knows. It’s amazing. Maybe they get past it. It’s pitiful. The worst.”

Potts came in, looking puzzled and concerned. He wanted the Fat Man's help with Ina Goober. They left, and I turned back to Rokitansky. In the dim half-light I thought I saw tears trickling down the old man's cheeks. Shame swept over me. My stomach churned. Had he heard what we'd said?

"Mr. Rokitansky, are you crying?" I asked, and I waited, as the long seconds ticked away, my guilt moaning inside me.

PURRTY GUD.

"But did you hear what we said about gomers?"

PURRTY GUD.

Someone once said that the point of art is to be more real than reality. *The House Of God* is way more real than reality. Reality *wishes* it could be anywhere *close to* as real as *The House of God*. This is a world where young people – the kid just out of school, the blushing new mother – die. Even normal old people – your grandmother, your grandpa – can die. But the most decrepit, demented people, the ones for whom every moment of artificially-prolonged life is a gratuitous misery and you pray at every moment that God will just let them find some peace – somehow they never die. They come into the hospital, they go back out to nursing homes, a few weeks later they're back in the hospital, a few weeks later they're back in their nursing homes, but *they never die*. This *can't* be literally true. But it's the subjective truth of working in a hospital. The Fat Man is right. I've been working in medicine for three years now, and I have seen my share of young people tragically cut off in the prime of life, and yet as far as I can remember I have never seen a gomer die. The magical realism of *House of God* describes the reality of medical professionals infinitely better than the rational world of hospital mortality statistics.

In the world of *The House of God*, the primary form of medical treatment is the TURF – the excuse to get a patient out of your care and on to somebody else's. If the psychiatrist can't stand a certain patient any longer, she finds some trivial abnormality in their bloodwork and TURFs to the medical floor. But she knows that if the medical doctor doesn't want one of *his* patients, then he can interpret a trivial patient comment like "Being sick is so depressing" as suicidal ideation and TURF to psychiatry. At 3 AM on a Friday night, every patient is terrible, the urge to TURF is overwhelming, and a hospital starts to seem like a

giant wheel uncoupled from the rest of the world, Psychiatry TURFING to Medicine TURFING to Surgery TURFING to Neurosurgery TURFING to Neurology TURFING back to Psychiatry again. Surely some treatment must get done somewhere? But where? It becomes a legend, The Place Where Treatment Happens, hidden in some far-off hospital wing accessible only to the pure-hearted. This sort of Kafkaesque picture is how medical care *feels*, and the genius of *The House of God* is that it accentuates the reality just a little bit until its fictional world is almost as magical-realist as the real one.

In the world of *The House of God*, medical intervention can only make patients worse:

Anna O. had started out on Jo's service in perfect electrolyte balance, with each organ system working as perfectly as an 1878 model could. This, to my mind, included the brain, for wasn't dementia a fail-safe and soothing oblivion of the machine to its own decay?

From being on the verge of a TURF back to the Hebrew House for the Incurables, as Anna knocked around the House of God in the steaming weeks of August, getting a skull film here and an LP there, she got worse, much worse. Given the stress of the dementia work-up, every organ system crumpled: in a domino progression the injection of radioactive dye for her brain scan shut down her kidneys, and the dye study of her kidneys overloaded her heart, and the medication for her heart made her vomit, which altered her electrolyte balance in a life-threatening way, which increased her dementia and shut down her bowel, which made her eligible for the bowel run, the cleanout for which dehydrated her and really shut down her tormented kidneys, which led to infection, the need for dialysis, and big-time complications of these big-time diseases. She and I both became exhausted, and she became very sick. Like the Yellow Man, she went through a phase of convulsing like a hooked tuna, and then went through a phase that was even more awesome, lying in bed deathly still, perhaps dying. I felt sad, for by this time, I liked her. I didn't know what to do. I began to spend a good deal of time sitting with Anna, thinking.

The Fat Man was on call with me every third night as backup resident, and one night, searching for me to go to the ten o'clock meal, he found me with Anna, watching her trying to die.

"What the hell are you doing?" he asked.

I told him.

“Anna was on her way back to the Hebrew House, what happened – wait, don’t tell me. Jo decided to go all-out on her dementia, right?”

“Right. She looks like she’s going to die.”

“The only way she’ll die is if you murder her by doing what Jo says.”

“Yeah, but how can I do otherwise, with Jo breathing down my neck?”

“Easy. Do nothing with Anna, and hide it from Jo.”

“Hide it from Jo?”

“Sure. Continue the work-up in purely imaginary terms, buff the chart with the imaginary results of the imaginary tests, Anna will recover to her demented state, the work-up will show no treatable cause for it, and everybody’s happy. Nothing to it.”

“I’m not sure it’s ethical.”

“Is it ethical to murder this sweet gomer with your work-up?”

There was nothing I could say.”

After learning these medical secrets, Dr. Basch uses hook and crook to prevent his patients from getting any treatment. They end up healthier than anyone else in the hospital, and Basch becomes a contender for “Most Valuable Intern” – in typical *House of God* style, nobody knows if this award really exists or is just a rumor. His colleagues compete for another award, the “Black Crow”, which goes to the intern who gets the most autopsy consents from grieving families – and which the administration doesn’t realize incentivizes doctors to kill their patients. This is so reminiscent of the bizarre incentive systems in real hospitals that it *hurts*.

But as the year goes on, everyone gets more and more frazzled. One intern has a mental breakdown. Another commits suicide by jumping out of a hospital window (this isn’t dramatic exaggeration by the way; three junior doctors [have committed suicide](#) by jumping out of windows in the past three years in New York City alone). Dr. Basch

runs through all sorts of interesting forms of neurosis. Finally, the end of the year approaches, the original crop of interns thinned-out but triumphant – and then they realize they have to do the whole thing again next year as residents, which is maybe a little less grueling but still in the same ballpark.

So they decide, en masse, to go into psychiatry, well-known to be a rare non-terrible residency. The author of *House of God* is a psychiatrist, so I guess this is only a spoiler insofar as you aren't logically omniscient. When the Chief of Medicine learns that every single one of his hospital's interns are going into psychiatry and there aren't going to be any non-psychiatry residents in the whole hospital...

...okay, fine, I won't spoil the ending. But suffice it to say I'm feeling pretty good about my career path right now.

II.

*House of God* does a weird form of figure-ground inversion.

An example of what I mean, taken from politics: some people think of government as another name for the things we do together, like providing food to the hungry, or ensuring that old people have the health care they need. These people know that some politicians are corrupt, and sometimes the money actually goes to whoever's best at demanding pork, and the regulations sometimes favor whichever giant corporation has the best lobbyists. But this is viewed as a weird disease of the body politic, something that can be abstracted away as noise in the system.

And then there are other people who think of government as a giant pork-distribution system, where *obviously* representatives and bureaucrats, incentivized in every way to support the forces that provide them with campaign funding and personal prestige, will take those incentives. *Obviously* they'll use the government to crush their enemies. Sometimes this system also involves the hungry getting food and the elderly getting medical care, as an epiphenomenon of its pork-distribution role, but this isn't particularly important and can be abstracted away as noise.

I think I can go back and forth between these two models when I need to, but it's a weird switch of perspective, where the parts you view as noise in one model resolve into the essence of the other and vice versa.

And *House of God* does this to medicine.

Doctors use certain assumptions, like:

1. The patient wants to get better, but there are scientific limits that usually make this impossible
2. Medical treatment makes people healthier
3. Treatment is determined by medical need and expertise

But in *House of God*, the assumptions get inverted:

1. The patient wants to just die peacefully, but there are bureaucratic limits that usually make this impossible
2. Medical treatment makes people sicker
3. Treatment is determined by what will make doctors look good without having to do much work

Everybody knows that those first three assumptions aren't always true. Yes, sometimes we prolong life in contravention of patients' wishes. Sometimes people mistakenly receive unnecessary treatment that causes complications. And sometimes care suffers because of doctors' scheduling issues. But it's easy to abstract away to an ideal medicine based on benevolence and reason, and then view everything else as rare and unfortunate deviations from the norm.

*House of God* goes the whole way and does a full figure-ground inversion. The outliers become the norm; good care becomes the rare deviation. What's horrifying is how convincing it is. Real medicine looks *at least* as much like the bizarro-world of *House of God* as it does the world of the popular imagination where doctors are always wise, diagnoses always correct, and patients always grateful.

There have been a couple of studies finding that giving people health insurance doesn't make them any healthier – see for example the [RAND Health Insurance Experiment](#) and the [Oregon Medicaid Experiment](#). I've always been skeptical of these studies, because it seems logical that people who can afford health care will get more of it, and there are ten zillion studies showing various forms of health care to help. Insulin helps diabetes. Antibiotics help sepsis. Surgery helps appendicitis. To deny claims like these would be madness, yet the studies don't lie. What is going on?

And the answer has to be somewhere in the bizarro-world of *House of God*. Real medical treatment looks precious little like the House MD



model of rare serious disease -} diagnosis -} cure. At least as often, it's like the *House of God* model where someone becomes inconvenient -} send to hospital -} one million unnecessary tests. Everyone agrees this is part of the story. *House of God* is a brilliant book in that it refactors perception to place it in the foreground.

But it's brilliant because in the end it's *not* just a romp through hilarious bureaucratic mishaps. There is as much genuine human goodness and compassion in this book as there is in any rousing speech by a medical school dean. The goodness is often mixed with horror – the doctor who has to fight off hordes of autopsy-consent-form-seekers to let a dying patient spend his last few seconds in peace, or the one who secretly slips euthanasia to a terminal patient begging for an end to the pain because he knows it's the right thing to do.

The question posed here is “what do you do in a crazy cannibalistic system where it's impossible to do good work and everyone is dying all around you?”, and the answer is “try as hard as you can to preserve whatever virtue you can, and to remain compassionate and human”. The protagonist swings wildly between “this is all bullshit and I'll just make fun of these disgusting old people and call it a day” and “I need to save everybody and if I don't I should hate myself forever”, and eventually like everybody, comes to some kind of synthesis where he recognizes he's human, recognizes that his patients are human, and tries to deal with it with whatever humor and grace he can manage.

It's hard enough for a book to be funny, and it's hard enough for one to be deep, but a book like *House of God* that can be both at once within the space of a few sentences is an absolute treasure.

III.

I talked to my father about *House of God*, and I told him a few parts that seemed unrealistic. He told me that those parts were 100% true in 1978 when the book was written. I looked into it more, and ended up appreciating the work on a whole new level.

*Uncle Tom's Cabin* is credited with kickstarting the emancipationist movement and maybe even [causing the Civil War](#). *The Jungle* is famous for launching a whole new era of safety regulations. *House of God* has a place beside them in the pantheon of books that have changed the world.

The book's “Second Law” is “GOMER GOES TO GROUND”: demented old

people will inevitably fall out of their hospital bed and injure themselves. The book has a whole funny/horrifying scene where the senior resident explains his strategy for this eventuality: He leaves their beds low enough that patients won't kill themselves when they fall, but high enough that they'll probably break a bone or two and have to go to orthopaedic surgery – which takes them off his hands. Later, a medical student apes this procedure, a patient falls and breaks a bone or two, and everyone freaks out and tells him that it was a joke, that *of course* you don't really arrange skeletal fractures for old people just to save yourself time, what kind of heartless moron could *think* such a thing? This is some nth-level meta-humor: the reader probably mistook it for real advice because it meshes so seamlessly with all of the other madness and horror, yet most of the other madness and horror in the book is easily recognizable by practicing doctors as a real part of the medical system. Actually, on the n+1st meta-level, I'm not at all sure that the resident wasn't meant to be completely serious and then backtracked and called it a joke when it went wrong. For that matter, I'm far from sure this wasn't a real medical practice in the 1970s.

I see enough falls that I wasn't surprised to see them as a theme, but I thought the book exaggerated their omnipresence. My father said it didn't – there were just far more falls back in the Old Days. Now hospitals are safer and falls are comparatively rare. Why? Because the government passed a law saying that insurance wouldn't pay hospitals extra money for the extra days patients have to stay due to fall-related injuries. I am so serious about this. This, I think, is the n+2nd meta-level; amidst all its jokes-played-straight the book treats encouraging falls as an actual in-universe joke, and yet in the real world once hospitals were no longer incentivized to let patients fall the falls stopped.

How did people become aware of this kind of thing? How did the movement against it start? A lot of it seems to be because of *House of God*. Everyone in medicine knew about this sort of thing. But *House of God* made it common knowledge.

People were scared to speak up. Everyone thought that maybe they were just a uniquely bad person, or their hospital a uniquely bad institution. Anyone who raised some of these points was met with scorn by prestigious doctors who said that maybe they just weren't cut out of medicine. *House of God* shaped medicine because it was the first thing to say what everybody was experiencing. Its terms like "gomer" and "turf" made it into the medical lexicon because they pointed to

obvious features of reality nobody had the guts to talk about before.

Shem writes an afterword where he talks about the reaction to the book. Junior doctors and the public loved it. Senior doctors hated it. He tells the story of going to a medical conference. Someone asked who he was, and he said jokingly "I'm the most hated doctor here". His interlocutor answered "Oh, don't worry, I'm sure you're not as bad as the guy who wrote that *House of God* book."

But *House of God* gets credit for helping start movements to cut intern work hours, protect doctors from sleep deprivation, reduce patient falls, and teach empathy and communication skills. The moral of the story is: the courage to tell the truth is rare and powerful. More specifically: the courage to tell the truth is rare and powerful not just in Stalinist dictatorships and violent cults, but in apparently normal parts of everyday First World life. All of these differently loaded terms like "culture of silence" and "political correctness" point at a fear of rocking various boats with nothing but your imperfect first-person knowledge to go on. But a tiny crack in the wall can make a big difference.

#### IV.

In a closing scene, Dr. Basch and all of his fellow interns – interns who had broken into tears weekly, gotten burnt out, starting seeing psychiatrists, considered suicide, all this stuff, these interns who had smashed up against the unendurable horrors of medicine and held themselves together only by the promise that it would soon be over – the minute they graduate internship they change their tune:

It looked like all but two or three [interns] would stay. The Runt and I were definitely leaving; Chuck hadn't yet said. The others were staying. In years to come they would spread out across America into academic centers and Fellowships, real red-hots in internal medicine, for they had been trained at the Best Medical School's best House, the House of God. Although a few might kill themselves or get addicted or go crazy, by and large they'd repress and conform and perpetuate the Leggo [the Chief of Medicine] and the House and all the best medical stuff. [Eddie] had been praised by the Leggo that he could start off the second year as ward resident, with "a free rein" on his interns. And so, saying already that the internship been "not so bad," he was preparing to indoctrinate his new charges: "I want them on their knees from day one."

Shem's author mouthpiece character Berry says:

It's been inhuman. No wonder doctors are so distant in the face of the most poignant human dramas. The tragedy isn't the crassness, but the lack of depth. Most people have some human reaction to their daily work, but doctors don't. It's an incredible paradox that being a doctor is so degrading and yet is so valued by society. In any community, the most respected group are doctors. [It's] a terrific repression that makes doctors really believe that they are omnipotent healers. If you hear yourselves saying, 'Well, this year wasn't really that bad,' you're repressing, to put the next group through it. [But] it's hard to say no. If you're programmed from age six to be a doctor, invest years in it, develop your repressive skills so that you can't even recall how miserable you were during internship, you can't stop.

Shem's thesis is that it isn't just about not wanting to make waves or offend the Chief of Medicine. It's about denying your own pain by identifying with the system.

This puts me in a weird spot. My internship (I find myself saying) wasn't so bad. I can give you some arguments why this might be true – things have gotten a lot better since *The House of God* was published (with no small credit to Shem himself), a small community hospital in Michigan is less intense than Harvard Medical School's training hospital, psychiatry interns sometimes have it easier than internal medicine interns since everyone knows this isn't a permanent deal for them.

And yet I distinctly remember one night a long time ago, coming home from high school. I had noticed that all of the adults around me said high school was some of the best years of their lives and I would miss it when I was gone, and yet high school seemed objectively terrible. I wondered if there might be some bias or bizarre shift in memory that happened sometime in people's twenties and gave them a localized amnesia or insanity. So I very distinctly recall telling myself "My current assessment is that high school is terrible, and if you ever find yourself remembering that high school was lovely, please be aware that your memories have been hijacked by some malevolent force."

And God help me, but *every single part of my brain is telling me that high school was lovely*. I fondly remember all the friends I made, the crazy teachers I had to put up with, the science competitions I won, the lunches spent in the library reading whatever random stuff I could get

my hands on. It seems like it was a blast. It's hard for me to even trust that one memory as anything more than imagination or the product of a single bad day. But although high-school-me had a lot of issues, he generally had a decent head on his shoulders, and if he says my memories have been hijacked, then I grudgingly believe him.

So was my intern year a good learning experience? *I have no idea and I'm not sure anyone else does either.* It's another type of figure-ground inversion: parade of [horrors](#) broken only by the occasional triumph, or clear sailing with a few bad moments?

On my last day of internship, one of my colleagues who was moving on said "I'm going to miss hating this place". I've always remembered that phrase. Now I wonder if it's some kind of weird snapshot of the exact moment of transition, the instant when "nightmarish ordeal" morphs into "halcyon days of youth". This is why medicine has to be written as magical realism. How else to capture a world where people reliably go from agony to Stockholm Syndrome in the space of a day, and where the transition is so intermixed with the general weirdness that it doesn't even merit special remark?

I found myself having more emotions reading *House of God* than I've had about anything in a long time. I don't really know why. But I think it has something to do with this resignation to the general incommunicable weirdness all around anyone who works in medicine. Somehow Shem manages to avoid the normalization of insanity that happens to every young doctor, capture the exact subjective experience and write it down in a way that makes sense. And then, having put his finger right on the unbearable thing, he makes it funny and beautiful and poignant.

I tell her. Again I tell her about Dr. Sanders bleeding out in my lap, about the look in Potts's eyes that night before he jumped, about my pushing the KCI into poor Saul. I tell her how ashamed I am for turning into a sarcastic bastard who calls the old ones gomers, how, during the ternship, I'd ridiculed them for their weaknesses, for throwing up their suffering in my face, for scaring me, for forcing me to do disgusting things to take care of them. I tell her how I want to live, compassionately, with the idea of death clearly in sight, and how I doubt I can do that, ever again. As I think back to what I'd gone through and what I'd become, sadness wells up and mixes with contempt. I put my head into Berry's folds and weep, and curse, and shout, and weep.

“... and in your own way, you did. Someone had to care for the gomers; and this year, in your own way, you did.”

“The worst thing is this bitterness. I used to be different, gentle, even generous, didn’t I? I wasn’t always like this, was I?”

“I love who you are. To me, underneath it all, you’re still there.” She paused, and then, eyes sparkling, said, “And you might even be better.”

“What? What do you mean?”

“This might have been the only thing that could have awakened you. Your whole life has been a growing from the outside, mastering the challenges that others have set for you. Now, finally, you might just be growing from inside yourself.

He also frames all of it in the language of psychoanalysis, which is jarring and sounds preachy. I’ve ordered the sequel, *Mount Misery*, about his training as a psychoanalyst. Expect a review of that soon.

## Book Review: Mount Misery

*[Content warning: psychiatric abuse (especially around borderline personality), rape, spoilers for Mount Misery]*

I.

Last month [I reviewed](#) Samuel Shem's *House of God*. The sequel, [Mount Misery](#), is about his time training in psychiatry. This is obviously relevant to my interests, so I picked it up.

It's weird to accuse someone of writing a cheap knockoff of their own book, but *Mount Misery* reads like a cheap *House of God* knockoff. There are all the same elements – a young doctor, an incompetent system, cruel hospital administrators, a kind mentor. But in the first book, it all came together perfectly. In this one, it was more hit-and-miss. Sometimes the imagery clicked; other times, it just seemed like caricatures. Creepy magical realism alternated with guys who announced “I hate patients! Let's just pump them as full of drugs as possible and leave them to die!” and then zoomed away in fancy sports cars they bought with pharma money. Maybe it's just less funny when it hits closer to home? I don't know, but it *was* less funny.

The book's frame story follows Dr. Roy Basch, who has left his abusive medical internship to do a psychiatric residency at the Mount Misery hospital, lured there by the kind and decent Dr. Ike White. But Dr. White commits suicide Basch's first month of the job, the hospital administration ineptly covers it up, and nobody wants to talk about it – something something metaphor even psychiatrists stigma something metaphor. Having lost his mentor, Basch is thrown back and forth among various attendings – the one who thinks Freud solves everything, the one who thinks drugs solve everything, the one who thinks a thinly-veiled parody of Otto Kernberg solves everything, et cetera. The only sympathetic character is Dr. Malik, who tells Basch to ignore the theories and try to connect with his patients as human beings; Malik is of course loathed by all the other doctors and ostracized from all the good positions in the institution.

The typical psychiatric treatment in *Mount Misery* works as follows: Take someone who has some awful stuff going on in their life but is pretty much functional. Declare them to be a perfect example of

whichever theory is popular that week (“this person clearly is obsessed with the idea of sucking their father’s penis”), then insult any underlings who don’t buy-in as being ignorami who refuse to understand the complexities of the human mind. Ignore all of the patient’s human needs in favor of the theory – if they complain that their room is cold, tell them that’s a reflection of the coldness of their father. If they protest that no, they’re really cold, then mark them as “resistant” and double-down on your theory since they obviously need a lot of help. The angrier the patient gets, the more you’ve obviously hit a nerve and the better a psychiatrist you are. Repeat the process until they are curled up in a ball, completely nonfunctional, which you will call “successfully regressing the patient” and “revealing the repressed pathology”. Then keep them in hospital until their insurance runs out, at which point discharge them to be someone else’s problem.

When someone like Dr. Malik doesn’t do the typical treatment, the fact that his patients never get reduced to curled-up balls gets held against him. He’s so “superficial” that he just takes the patient’s complaints about being cold as a reference to real physical coldness in the environment! If his patients say they’re upset at losing their job, he’s so “superficial” that he just talks to them about their job and how they can support themselves financially! A *janitor* could do that! When his patients fail to be reduced to curled-up balls of rage, that obviously proves he’s not nailing their real emotional problems, not getting past their defenses, not successfully regressing people, and just generally incompetent.

The master of this kind of anti-treatment is Dr. Heller – the hospital’s specialist in borderline personality disorder – who believes that it’s psychodynamically important to bring out the latent negative transference in borderlines (ie make them hate you). When Dr. Basch, at Dr. Malik’s urging, tries being nice to a borderline patient instead, and gets much better results than Heller ever has, the expert lectures him on his mistake:

Heiler explained that his technique, “confrontation”, had evoked the anger that was hidden in each and every borderline. “She wasn’t angry at *me*”, he said, “it was her transference to me. She was distorting her real relationship with me based on early infantile experiences, with her bad mom, in the first year of life.”

“But she was angry at you,” I said. “Anyone would be.”

“Not that angry,” he said. “Not borderline angry.”



"How do you know that she's a borderline?"

"Because of that incredible anger."

"But she didn't start out angry – you provoked it."

"Who says?"

"I do! It was obvious."

"*You?* You, who've been a psychiatrist two whole months? You don't know diddly-squat about treating borderlines. Your so-called 'concern' is going to be a real problem – you're already overinvolved, imagining that you can rescue her. To you, what I did seemed cruel, right? [...]"

His voice softened, and he went on, "Look. I know that the first time you see it, this theory seems strange – it's counterintuitive. If just being nice to borderlines worked, don't you think I would do it? Of course I would! In fact, I tried, way back, at first. But it's like dealing with difficult children: you've got to be firm. Everybody knows that if you don't dig up the Latent Negative Transference in these gals, next thing you know you've got people killing themselves, or killing other people. For fifty years people have been trying to cure borderlines by being 'nice and human' to them. Everybody felt better, nobody *got* better. It's easy to act nice, it's hard as hell to stand firm and confront the rage locked up in borderlines. Borderlines are hell. There aren't too many of us left who have the guts to treat 'em. I've specialized in borderlines for years and years, and I've seen what works: You go through that rage to the truth, to their miserable pain and suffering, and believe me, they get better."

"But," Solini said, "I mean, everyone agrees that the lady [did get better when we were nice to her]"

"In this case," Blair said, "Better is worse. She'll have to get worse – which is in fact better – in order to get better, which will still be worse. If she gets a little worse, she won't get a lot better, but if she gets a lot worse, she may get a little better. Not smarmy-'nice' better. *Borderline* better...Don't worry, Roy. Your overinvolvement with her is normal. Sick, but normal. Gals like her are experts at getting guys like you entangled. Read my paper, *Rescue Fantasies In The Naive Resident*"

This speech could be a word-for-word transcription of something one of *my* attendings said to *me* during *my* intern year when *I* tried being nice to a borderline patient. There is a subtle sense in which [this attitude can sometimes be helpful](#). But get the subtlety even slightly wrong and it devolves into being really evil, and *Mount Misery* brings out the worst in it.

Dr. Basch's first therapy patient is a man named Cherokee, a rich WASP lawyer. He's obsessed with the paranoid fantasy that his wife is having an affair with her psychoanalyst, a Mount Misery luminary named Dr. Dove. Basch tries everything with Cherokee – drugging him up, uncovering his latent homosexuality, suggesting he hates his father – but eventually Cherokee commits suicide anyway (“eventually he commits suicide anyway” will be a common theme among characters in this book.) In the aftermath, it is discovered that – surprise! – his wife was having an affair with her psychoanalyst, and also it was kind of coercive and bordered on rape.

Basch starts an investigation and learns that this same Dr. Dove is molesting a bunch of his female patients, and various other tangentially related people for good measure. He tries to expose Dove, but Dove denies everything, and he's a bigwig who can get the administration to take his side.

The description of the ensuing investigation is beautifully done, precisely because it avoids some of the caricatures of the rest of the book. Dr. Dove isn't portrayed as an ogre grumbling about “lying whores” or whatever. He sounds to all the world like a caring psychoanalyst, who understands that his patients are fragile and that stress of discussing sexual fantasies in psychoanalysis can sometimes break out into the patient's consciousness and cause them to behave as if those fantasies actually occur. Yet all of this just serves to make him creepier and more hate-able.

In a particularly sharp scene, Dove capitalizes on the occasion to team up with a colleague and offer workshops about how to protect yourself from false accusations of assault in psychiatry:

The slide show ended. Dr. Shpitzer then made a heartfelt statement that patient-psychiatrist contact was absolutely off-limits. Touching the patient, but for a handshake, was off limits. A hug was totally out of bounds. Yet what was the psychiatrist to do when a female patient, maybe a borderline or dissociative or multiple, suddenly got up out of his chair and approached, intent

on hugging him? Dr. Shpitzer asked Dr. Dove to demonstrate. Schlomo, ever the showman, popped to his feet.

First Shptizer said he would show us all what not to do, and told Shlomo to go ahead. Playing the woman patient, Schlomo started toward Shptizer, arms forward. Shpitzer crouched in a martial-arts stance and with a scream \_ HYAH! – karate-chopped Schlomo’s hands down...The discussion then centered on variants of this technique. Dr. Shpitzer passed out his brochure, describing his video course – “Six Quick Steps To Avoid The Pitfalls Of Risk” – which we could all buy for \$399.95. This would allow us to pass out risk-management requirements for state relicensure as shrinks in the comfort and privacy of our very own homes.”

A psychiatrist actually rapes a patient, he doesn’t get punished because he’s a very important guy who’s friends with all the bigwigs, but everyone has to feel like they’re doing something, so they ban all normal human contact with patients, and also sell \$399.95 courses that you can use to prove you’re compliant with patient protection regulations. This may be the best metaphor for life that I have ever heard.

(it doesn’t hurt that I’ve had to go through courses on whether it’s ever appropriate to hug patients, or that I once had to finagle my way out of attending a conference that was basically this guy’s \$399.95 video lecture)

## II.

One of the main themes of this book is that psychoanalysis makes people worse.

The book doesn’t claim that psychoanalysis isn’t effective. It treats it as powerful and worthy of respect. The book’s psychoanalysts are consistently able to tell weird facts about a person from just a glance, to strip them down to their deepest insecurities in minutes. It’s just that people who are healthy and decent going into psychoanalysis end up cracked and nasty coming out of it. A lot of the worst doctors at *Mount Misery* were decent people before they started getting analyzed themselves. Of course, it would have helped if their analyst wasn’t a sexual predator, but the book treats the process as dangerous even aside from that.

When Basch asks his supervisor Dr. Lowell what to do about the man

who believes Dr. Dove is having an affair with his wife, Dr. Lowell describes the analytic technique:

"But what about Schlomo fucking his wife? You don't think it's true?"

"There is no truth, there is only the individual perception of experience."

"Wait a minute. The truth is that I'm taller than you."

"That's not the truth, that's your transference to me."

"We can measure it. To see who in fact is taller."

"You think 'taller' can be measured?"

I saw her point. She wasn't only aware of the objective fact, she was also aware of the deeper meaning psychologically. "But I'm stuck," I said. "I don't know what to do."

"You have to go deeper into his obsession, find the deeper meaning, the roots of it in his childhood, his past."

This was exactly what Malik had warned me against doing. Suspicious, I asked: "How?"

"If he talks feeling, you talk thought. If he talks thought, you talk feeling. If he talks past, you talk present. If he talks present, you talk past. You the doctor talk constantly about what he the patient doesn't want to talk about. This is the analysis of the resistance. Then, when he starts distorting his relationship with you and calling you a sonofabitch for not talking about what he wants to talk about, then you do the analysis of the transference, telling him he's treating you like his father, his mother, his aunt Sally, whatever. On a deeper level still, you can analyze the resistance to the transference, and the transference to the resistance. Not to mention the countertransference to each – but that's still way beyond you at this point."

Finally I felt I was getting some concrete advice about what to do in therapy.

I highlighted this last line because this is seriously much more concrete and actionable advice than anyone has ever given me about

psychodynamic therapy and I've been doing it for two years.

And a lot of this rings true. I remember one time one of my patients missed a session because his flight back from vacation was delayed. I told my supervisor this and he got angry with me, saying it was superficial to blame it on the flight instead of talking about which of my comments had triggered the patient and made him decide to miss his plane. I insisted that we'd had a perfectly good session the week before, that the delayed plane had just been a delayed plane, and me and my supervisor got angrier and angrier at each other for both missing what the other thought was the point. Finally I got on the Internet and managed to prove that my patient's plane really had been delayed to the point where it was impossible for him to have made my appointment, at which point my supervisor switched the discussion to why it was so important to me to believe that his plane had been delayed that I would do an Internet search about it, and whether I was trying to defend against the unbearable notion that my patient might ever voluntarily miss one of our sessions. My supervisor's treatment of whether planes ever get delayed seems a lot like Basch's supervisor's treatment of who's taller.

And I don't think these people are literally so stupid that they don't understand that there are objective rulers that tell objective height. Trying to steelman this school of psychoanalysis, it's a sort of as-if game, the professional equivalent of Crowley's demand that the adept swear an oath "to interpret all phenomena as a direct dealing of God with his soul". It's an enforced fast from object-level discussion, where you treat everything as significant as an assumption. My first guess was going to be that this is so that you minimize the Type II errors where you miss something that really *is* significant, but after thinking about it more I wonder if it's just that this is a bizarre and unnatural mode of thought that can get you places that normal thought can't, sort of the same way some people have revelations on LSD not because LSD itself is magic but because it's so different from normal thought processes that it can uncover things that are otherwise hidden. This could also explain the Freudian obsession with dreams – it's not that they necessarily mean anything, any more than my patient missing his flight meant something, it's that they're a good source of noise to start scrying into.

(another Freudian technique is free association, asking the patient to just say whatever first comes to mind. In *Mount Misery*, Basch's patient says "porpoises", but has no idea why – something had to come to

mind, and a porpoise was the first thing to pop into his head. This is a lot more like my own experience with free association than the textbook cases of people suddenly coming up with repressed childhood memories or something)

But this method also reminds me of something else. This is Christopher Hitchens:

“I think Hannah Arendt said that one of the great achievements of Stalinism was to replace all discussion involving arguments and evidence with the question of motive. If someone were to say, for example, that there are many people in the Soviet Union who don’t have enough to eat, it might make sense for them to respond, “It’s not our fault, it was the weather, a bad harvest or something.” Instead it’s always, “Why is this person saying this, and why are they saying it in such and such a magazine? It must be that this is part of a plan.”

The avoidance of object-level discussion in favor of meta-level discussion can get really nasty, really quickly. The book gives one example – if you psychoanalyze rape accusations (“what purpose is it serving in this person’s mental ecosystem to have them accuse their psychiatrist of rape right now?”) then you miss someone who is actually getting raped. This can be more insidious when complaints are less dramatic and less binary – I know a lot of psychiatrists who will respond to people saying their medication isn’t working (or is causing side effects), with analyzing their motives for wanting to piss off their psychiatrist or stay unhealthy. And finally, this is absolutely *fatal* to any kind of complicated social discussion – the thing where instead of debating someone else’s assertion, you [bulverize](#) what self-interest or privilege causes them to believe it.

Basch says:

I breathed in the cleansing sorrow of the rain and stared back up at the castle, and I saw clearly how through psychoanalysis you could know every nook and cranny of yourself and have no idea how to be with anyone, the seeming dazzle of the self blinding you to the connections with others...and I knew then I had once been in touch with people, and that it wasn’t inevitable that we are always shouting across an unbridgeable gap, but rather that the gap was in Freud and monstrous fabrications like [Dr. Lowell] herself who followed after, bereft souls floating untethered in pools of self like lilies in sepsis, the gap was in them, not in the

essence of humans, nor in the essence of the whole world.

I stared up at the vigilant street lamp, the cone of glittering sleet in the winter night reaching toward me like a beacon, showing me as clearly as if it were the moment's sun that the real perversion of Freud and analysis was to take the essence of something and reduce it to something else – the present to the past, love to hate, joy to misery, life to death – and to do it under the guise of understanding and yet, let's face it, all the while doing it to escape from what Malik kept saying life at heart actually is – being, without description of that being.

If the book is right about psychoanalysis being destructive, I wonder if this is why. Living on the object level is *really good*. That's where all the problems are and generally where the solutions are. It's a natural, healthy place to live.

### III.

The last thing that really struck me about the book was its praise for Alcoholics Anonymous.

In the last chapter of the book, Dr. Malik is revealed to be a recovering alcoholic who relapses when he gets diagnosed with cancer. He ends up committed to his own hospital, where he is first pumped full of irrelevant drugs (of course), then subjected to random people telling him he is a bad person because only bad people would drink. All of this is finally contrasted with Alcoholics Anonymous, treated as a beautiful organization full of caring-yet-pragmatic people that tries to genuinely connect with people and give them what they need to stop drinking.

It's pretty popular to hate on Alcoholics Anonymous these days. And not without reason – I did [a sort of literature review](#) about them a while ago, and while they're no worse than any other treatment options, they aren't any better either. Their insistence on acknowledging a Higher Power pisses some people off; their insistence on how they are the only way and if you abandon them you'll just be a drunk for the rest of your life pisses off others. Yet there are some very smart and very compassionate people – apparently including *Mount Misery* author Samuel Shem – who absolutely *love* them. In fact, looking at the About The Author page in the back of the book, it looks like after finishing this novel, Shem wrote a hagiographical play about AA founders Bill W and Dr. Bob.

(I checked to see if Shem has ever been an alcoholic himself, sometimes a common feature of people who are really into AA, but it doesn't look like it.)

There's a link between AA and Shem's constant theme throughout his books – people healing through relationships and human connection. But I was especially interested to see this quote, from [an article on his AA play](#):

And what about God? At the time that the two of them met, neither one had much faith in a traditional, religious God. As Smith said, "I was forced to attend church four times a week. I vowed when I was free I would never darken the door of a church again—a vow I've kept, religiously, for forty-odd years." Wilson, too, had more or less given up on God. Both men had pragmatic reasons: they had tried prayer to God, and it didn't work to keep them sober. The key to their vision about "God" came from a man named Ebby Thatcher, an old friend of Wilson's who said, "You don't have to believe in God, you just have to admit that you're not God. Use what you do believe in, whatever it is."

Shem seems really into this. I can't quite justify this from the text, but I get the feeling that he would even take this to the meta-level, something like "complaining about how AA is exclusionary because it requires you to acknowledge a Higher Power is a good sign that you haven't completed the personal growth task that 'acknowledging a Higher Power' corresponds to."

This was pretty close to what Dr. Basch decides is the essence of a good psychiatrist during his final-chapter epiphany: he realized that he had to get *outside himself*. The lesson is a little bit Buddhist, but it also ties in nicely to the condemnation of psychoanalysis – while he was being analyzed, he was focused on "his inner machinery", focused on how everything he experienced was a reflection of his own mind and desires. The attitude Shem holds up as healthy is the exact opposite of that – being able to think about anything *except* your own problems and your own status, being able to connect to your patients because you're experiencing them as human beings.

I've been trying to reread some of *The Last Psychiatrist* and better understand what he means by narcissism, something I haven't been able to get a good feel for before. I think Shem's idea of getting outside yourself and "admitting that you're not God" is close to this, a kind of narcissism therapy, where you can work yourself out of narcissism



which allows you to connect to your patients and maybe help them in the same way.

(it also sort of reminds me of C.S. Lewis)

It's well-known in psychopharmacology that different drugs work on different people, for mysterious reasons. Prozac and Paxil are about equally good in general, but some people will hate Prozac and find Paxil a miracle drug, whereas other people will get better on Prozac and find Paxil does nothing. I wonder if there might be something similar for social interventions like Alcoholics Anonymous. Over the whole population, it won't outperform any other form of rehab – but there will be a few people for whom it works miracles. Those people will go on to praise it to the skies in all kinds of books and plays and so on – not to mention starting the next generation of Alcoholics Anonymous groups – while everyone else watches bemusedly. Actually, now that I mention this it sounds obviously true and I'm not sure why I wasn't thinking this way already.

#### IV.

One of the reasons the psychiatrists in *Mount Misery* are so bad is that they're narcissistic, but it's an understandable narcissism. Someone says "My mom just died", and you say "I'm sorry for your loss" and let them talk about their memories of their mother? *Anyone* can do that! Why did they get borderline-tortured throughout their twenties and thirties getting a really prestigious psychiatry degree if they were just going to say "I'm sorry your mom died"? Being able to relate it all to wanting to suck your dad's penis at least gives them some credibility for all their erudite Freud-knowledge and justifies their \$200-an-hour fees. "I'm sorry for your loss" isn't exactly \$200-an-hour level insight.

But I don't know if Shem has a good solution here. It doesn't seem like he wants to destroy psychiatry as an institution – he is, after all, a Harvard psychiatry professor. But his fictional bigwigs are right. If all you do is be a decent human being and have one-to-one meaningful discussions with patients, then it doesn't seem like there's a point in having MDs for that.

I've had a lot of patients with this exact complaint – usually it's about psychologists or therapists instead of psychiatrists. "She kept telling me to go to sessions, that she was going to help me, and all we did was talk about my problems. I could have had a friend do that. So eventually I just quit and I haven't been back to see a therapist since. Bunch of

quacks.” I hear this kind of thing almost every day. It’s a big fear of mine that somebody thinks it about me. Probably one reason I like psychopharmacology so much is that it makes me feel useful – prescribing imipramine correctly isn’t something that *just anybody* could do; my patients may or may not get better but at least they’re getting their money’s worth.

I don’t know if Shem thinks that well-trained psychiatrists have some kind of special ability to connect with other people. Based on how horrible every psychiatrist in his book is, plus his preference for self-help groups like AA, it doesn’t look like it. But his rejection of both official therapies and medication doesn’t leave him a lot of outs. Also, it seems pretty obvious even to him that a lot of conditions – like melancholic depression and schizophrenia – *don’t* just need a kind word and a smile, that they *are* really complex entities that need a lot of effort and probably a good biochemical understanding before you can do much to them.

If all that Shem is saying is that doing the complicated work of psychiatric treatment – therapies, medications, et cetera – has to be combined with actually caring about the patient and treating them like a human being, then fair enough. But the vitriol of his criticisms of therapy and medication make it hard to read that message. If he’s proposing something more radical, then I’m afraid I didn’t entirely get what it was.

# “My Immortal” As Alchemical Allegory

I.

From Vox: [Solving The Mystery Of The Internet’s Most Beloved And Notorious Fanfic](#). The fanfic is [“My Immortal”](#), a Harry Potter story so famous that it has its own Wikipedia page, and articles about it in [Slate](#), [Buzzfeed](#), and [The Guardian](#).

It’s famous for being really, *really* bad. Spectacularly bad. Worse than it should be possible for anything to be. You wouldn’t think you could get *The Guardian* to write an article about how bad your fanfiction was, but here we are. Everyone agrees that it must have taken a genius to make something so awful, but until recently nobody knew who had authored the pseudonymous work. The Vox article investigates and finds it was [probably](#) small-time author Theresa Christodoupolos, who goes by the pen name Rose Christo.

But this leaves other mysteries unresolved. Like: what is going on with it? Its plot makes little sense – characters appear, disappear, change names, and merge into one another with no particular pattern. Even its language is fluid, somewhere between misspelled English and a gibberish that can at best produce associations suggestive of English words.

All these features are unusual in a modern fanfiction. But they’re typical of alchemical texts, which are usually written in a layer of dense allegory. Might this shed more light on *My Immortal*? After spending way too long investigating this, I find strong evidence in favor. *My Immortal* is a description of the Great Work of alchemy. Its otherwise-inscrutable symbolism is a combination of three traditions: the medieval *opus*, the 17th century Rosicrucians, and the native German traditions encoded in Goethe’s *Faust*. We’ll start by going over these traditions, then delve into the text to unveil the hidden meaning.

First Source: The Medieval Opus

Medieval alchemy centered around the Great Work, or *magnum opus*, of creating the Philosopher’s Stone. The Stone is supposedly a substance that can transmute lead into gold and grant immortality. But

scholars since Jung have also interpreted the *opus* symbolically, as a process of spiritual transformation. In this reading, the chemical processes are a metaphor for psychological processes, and the creation of the Stone represents the discovery of the true Self, similar to the Christian gnosis or Buddhist enlightenment. Descriptions of the *opus* tend to describe it as taking place in a series of stages, usually three: nigredo (blackness), albedo (whiteness), and rubedo (redness).

In the first stage ([nigredo](#), “blackness”), you start with some kind of base matter. In the chemical allegory, this is usually lead. In the psychological version, this is the normal mental state, with all of its hangups and uncertainties. The seeker at this stage is symbolized by the raven, blackest of animals. He (the medieval system assumes a male seeker) must begin by confronting his unconscious mind, which takes the form of a dragon. The unconscious is full of bizarre and shameful repressed material, and the seeker’s instinct is to run away. Instead, he must slay the dragon, at which point the dragon rises again as an ally. The seeker then unites with the unconscious in the first “chemical wedding”, ending in a sudden revelation of blinding whiteness – the second stage of the Work.

In the second stage ([albedo](#), “whiteness”), the base matter must be cleansed of its impurities. The seeker is analogized to a child in a baptismal font, or bathing in a stream, or [any of several other water metaphors]. Eventually it begins to shine with its own inner silvery-white light. When the dross has been cleared away, the seeker encounters a second representation of his feminine principle. He unites with the feminine principle in the second “chemical wedding”, and finally see his True Self as it really is.

In the third stage ([rubedo](#), “redness”), the seeker has already discovered his True Self as a sort of distant guiding star, but has yet to relate it to the rest of his life or the everyday world. The otherworldly True Self must be united with the seeker’s worldly personality in the final and greatest alchemical wedding, often called the Marriage of the Sun and Moon, or the Marriage of the King and Queen, or [several other flowery metaphors], which joins all opposites into a final cataclysmic union – the Philosopher’s Stone. When this stage ends, the seeker is once again an ordinary person interacting with the ordinary earthly world, but now in a way fully integrated with his true Self. In some traditions, the work is cyclic, and the seeker begins again at the *nigredo* stage.

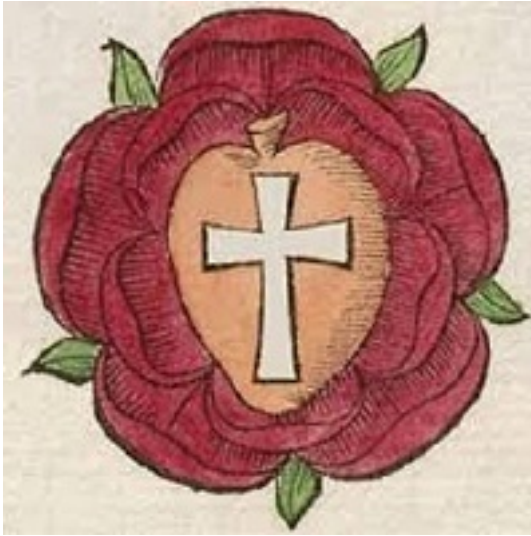
Some of this is already in canonical Harry Potter – the first book in the

series was originally called *Harry Potter and the Philosopher's Stone*, and Rowling included a few alchemical "easter eggs". In particular, she includes characters [named after](#) two of the three stages: Albus Dumbledore (= albedo) and Rubeus Hagrid (= rubedo). There is no character representing the blackness stage, probably because calling somebody "Nigerus" would be Problematic.

In order to turn Rowling's half-assed name-dropping into a true alchemical allegory, *My Immortal* has to introduce the missing character with a blackness-themed name. Accordingly, its first sentence starts "Hi my name is Ebony Dark'ness Dementia Raven Way".

#### Second Source: The Rosicrucian Writings

These were a series of anonymous pamphlets that took Germany by storm in the early 17th century. They purported to reveal the existence of a secret brotherhood of alchemists, the Rosicrucians, who had discovered vast mystical secrets and were going to disclose them any day now. According to the pamphlets, they had been founded by a hero-sage, Christian Rosenkreutz, who had traveled the world seeking wisdom. But Rosenkreutz was a bit too allegorical for anyone to think he was a real person. His last name was German for "Rosy Cross", referring to a long tradition of alchemical symbolism in which one produced the Stone by uniting the Rose (the feminine? the spirit? the consciousness?) and the Cross (the masculine? the material world? the body?). The symbolism was a bit unclear, but it caught on, and soon all sorts of mystical groups were using a rose cross as their logo and claiming to be Rosicrucian-inspired.



The most famous Rosicrucian work was [\*The Chymical Wedding Of Christian Rosenkreutz\*](#), which purports to be a story about Rosenkreutz getting an invitation to go to a castle for a wedding. But this is just the frame story for throwing a metric ton of inscrutable symbolism at the reader, as Christian successively encounters candle-lighting virgins, golden scales, white serpents, and a bunch of gates and towers. Everybody assumed there were deep mystical secrets contained in this, probably related to the alchemical wedding necessary to achieve the Philosopher's Stone.

*My Immortal* wears its Rosicrucian themes on its sleeve. Most obviously, its author uses the not-exactly-subtle pen name "Rose Christo". But also, the third sentence of the introduction is just "MCR ROX!" A quick check at the [My Immortal Wiki](#) tells us that MCR is supposed to be an abbreviation for "My Chemical Romance".

I maintain that if you are writing a fanfiction of a book about the Philosopher's Stone, and you use the pen name "Rose Christo", and you reference a "chemical romance" in the third sentence, you know exactly what you are doing. You are not even being subtle. *My Immortal* is in part a modern retelling of *The Chymical Wedding of Christian Rosenkreutz*.

Third Source: Goethe's *Faust II*

You know the story. A great alchemist, frustrated by the limitations of

his mortal faculties, makes a deal with the Devil. The Devil will give the alchemist anything he desires. In exchange, if the alchemist ever knows a single moment of perfect happiness, he will die and the Devil will get his soul. Maybe you even know the followup: he covets an innocent maiden, Gretchen, and with the help of the Devil he gradually corrupts her until she chooses death over a life of sin.

All that is *Faust* Part I. Later in life, Goethe wrote the much weirder *Faust* Part II. A German scholar assures me that “nobody has any idea what it’s about”, except that it is definitely an alchemical metaphor in some way.

A brief synopsis: Faust, thanks to his pact with the Devil, has now become a powerful sorcerer and respected statesman. He decides that a cool thing to do would be to marry Helen of Troy (here called by her German name “Helena”) the most beautiful woman in history. The Devil (with the help of the Sibyl) helps him time-travel back to ancient Greece, where he meets Helena, seduces her, and brings her back to his own time. They have a child together, but the child dies, and in grief Helena departs Faust for the Greek underworld. Faust devotes himself to a different project – raising a new country out of the sea, which he will govern. The country-raising goes really well, and looking upon his new territory, Faust accidentally feels a single moment of perfect happiness. He dies, and the Devil takes his soul and drags him to Hell. Then a choir of angels show up and distract the Devil. While he is distracted, they carry Faust up to Heaven. There he meets all the women in his life – eg Gretchen and Helena – as well as the Virgin Mary. All of them are revealed to be aspects of the Eternal Feminine within himself (or something), and by recognizing this, he is redeemed and found worthy of salvation. The end.

*My Immortal* is full of symbolic wordplay (for example, did you catch that “MCR ROX” references not just the Chemical Wedding but also its end result, the Stone?) When it mentions that a character is Goth, or seems Goth, or does something in a Goth way, this is often a visual pun (Goth = Goethe) telling us that the scene has a parallel in Faust. We’ll go over some examples later.

## Overall Structure

The [canonical version](#) of *My Immortal* is separated into two books of 22 chapters each. In occultism, 22 is the number of completion, especially in Kabbalah (where there are [22 letters of the Hebrew alphabet](#), 22 generations from Adam to Israel, and 22 paths on the Tree of Life), and

Tarot (where there are [22 Major Arcana](#)). So we can think of the book, like the Opus, as a double-traversal of the Tree of Life – first going up from Earth to Heaven, then returning to Earth again.

The medieval and Rosicrucian themes are mostly concentrated in the first half of the text, and consist of a series of thwarted traversals of the alchemical path. At the end of Part 1, a final successful traversal is completed. In Part 2, we segue to a scene-by-scene identity with Part 2 of *Faust*. More specifically:

Chapter 1 – 5: Alchemical Path 1, nigredo, albedo. Purification fails, seeker sinks back into *prima materia*.

Chapters 6 – 18: Alchemical Path 2, nigredo, albedo, partial rubedo. Second alchemical wedding fails, seeker sinks back into *prima materia*

Chapters 18 – 22: Alchemical Path 3, nigredo, albedo, rubedo. Second alchemical wedding partly completed, seeker remains in limbo state.

Chapters 22 – 39: Equivalent to *Faust*, Act II, Scene 3.

Chapters 40 – 44. Equivalent to *Faust*, Act II, Scene 5. Third alchemical wedding succeeds, Stone attained.

I realize these are very odd claims, so I want to demonstrate the flow of symbolism in each of these and compare it to that used in more traditional alchemical texts.

## II.

### Chapters 1 – 5: First Path

In his papers on alchemy, [Carl Jung writes](#) “Great importance was attached to the blackness as the starting point of the Work”. The first sentence of *My Immortal* begins “Hi my name is Ebony Dark’ness Dementia Raven Way”.

But Ebony’s name isn’t just blackness. It’s a combination of all the different symbols of the *nigredo* stage. Let’s look at the rest of the Jung quote:

Great importance was attached to the blackness as the starting point of the Work. Generally it was called the “Raven”. In our context the interpretation of the nigredo as terra (earth) is significant. Like the anima media natura or Wisdom, earth is in principle feminine. It is the earth which, in Genesis, appeared out of the waters, but it is also the terra damnata.



I've bolded the relevant points. Unlike the albedo and rubedo characters, the nigredo character must be feminine. Her name references the Raven. More speculatively, damnata = Dementia? I think plausibly true. Her name is just a bunch of nigredo symbols strung together.

The *nigredo* stage begins with a black substance (sometimes identified with lead, the starting point for the transmutation) being placed in a vessel called "the coffin". From [Landauer & Barnes \(2011\)](#):

The alchemists used a number of different vessels in their work and these vessels – variously known as alembic, coffin, egg, sphere, prison, and womb – particular to stages in the alchemical process. During the blackness of the putrefying Mortificatio, the vessel was represented as a coffin or prison

Each of the three paths in Part I of *My Immortal* begins with Ebony waking up in a coffin. For example Chapter 2: "I got out of my coffin and took of my giant MCR t-shirt which I used for pajamas". Remember, MCR means "my chemical romance" and when it appears it usually tells us that we are getting an alchemical analogy.

The black substance in the coffin must then undergo a series of reactions, usually symbolized as interactions between a raven and dragon. Sometimes the raven and dragon are the same entity; other times they are different entities that must confront each other and unite. For example, from the *Aurelia Occultae Philosophorum*:

I am an infirm and weak old man, surnamed the dragon; therefore am I shut up in a cave, that I may become ransomed by the kingly crown. A fiery sword inflicts great torments on me; death makes weak my flesh and bones. My soul and my spirit depart; a terrible poison, I am likened to the black raven, for that is the wages of sin.

In Jung's more psychological version, the raven is the seeker and the dragon is the seeker's unconscious mind. The seeker must begin by confronting his unconscious and all the repressed material therein.



*A typical alchemical illustration with raven and dragon. This one isn't going so well for the raven.*

In the first chapter of *My Immortal*, a raven-named character meets a dragon-named character:

"Hey Ebony!" shouted a voice. I looked up. It was.... Draco Malfoy!

"What's up Draco?" I asked.

"Nothing," he said shyly.

But then, I heard my friends call me and I had to go away.

The encounter with the unconscious begins the process of *mortificatio*. This is cognate with the English word “mortify”, and with good reason – the unconscious is full of all of our deepest and most shameful repressed desires. Herzer and Gillabel describe it [like so](#):

In alchemy the dragon corresponds closely with what Jung called the Shadow. The Shadow is the name for a collection of characteristics and impulses which could be conscious, but which are denied. At the same time we recognize and see them in other people. Some examples of the Shadow are: egotism, laziness, intrigues, unreal fantasies, indifference, or being obsessed by money and possessions. The Shadow is the inferior being in us that desires what we do not allow ourselves because it is uncivilized, because it is incompatible with society’s rules and with the image of our ideal personality. It is all that what we are ashamed of.

When Ebony encounters Draco, she feels shame:

“OMFG, I saw you talking to Draco Malfoy yesterday!” [Willow] said excitedly.

“Yeah? So?” I said, blushing.

“Do you like Draco?” she asked as we went out of the Slytherin common room and into the Great Hall.

“No I so fucking don’t!” I shouted.

“Yeah right!” she exclaimed.

The work of the *nigredo* stage is to transmute this shame into acceptance and even love. Some sources describe this as slaying the dragon – but after being slain, the dragon rises again in a perfected form. Once the seeker is fully comfortable with their dragon, self and unconscious unite in the first alchemical wedding.

Just then, Draco walked up to me.

“Hi.” he said.

“Hi.” I replied flirtily.

“Guess what.” he said.

“What?” I asked.

“Well, Good Charlotte are having a concert in Hogsmeade.” he told me.

“Oh. My. Fucking. God!” I screamed. I love GC. They are my favorite band, besides MCR.

“Well.... do you want to go with me?” he asked.

I gasped.

Draco invites Ebony on a date, where they will see a band Ebony compares to My Chemical Romance. In general, concert dates in *My Immortal* represent alchemical weddings. This particular concert is the wedding at the end of the first stage. We know this because the story describes Ebony’s clothing in detail at several points, and it is always some combination of black, white, and red. The particular colors at any given time indicate the stage of the Work being represented. In this case, when dressing up for the concert, Ebony says: “I painted my nails black and put on TONS of black eyeliner. Then I put on some black lipstick.” The only color is black – so she is still entirely in the *nigredo* stage.

At the end of the concert/date/wedding, Draco and Ebony go to the Forbidden Forest and have sex, representing the union of Ebony and her unconscious. This signals the end of the *nigredo* stage and the beginning of *albedo*.

Then he put his thingie into my you-know-what and we did it for the first time.

“Oh! Oh! Oh!” I screamed. I was beginning to get an orgasm. We started to kiss everywhere and my pale body became all warm. And then....

“WHAT THE HELL ARE YOU DOING YOU MOTHERFUKERS!”

It was.....Dumbledore!

Almost all descriptions of the beginning of *albedo* emphasize its suddenness. Jung writes that “the *nigredo* gives way to the *albedo*...the ever deepening descent into the unconscious suddenly becomes illumination from above”. Remember that *Albus* Dumbledore is the Harry Potter character representing *albedo*, even as Ebony represents

*nigredo*. So as Ebony has sex with Draco (deepening descent into the unconscious), suddenly she sees Dumbledore standing over her.



*The part where the seeker has sex with the dragon is canon.*

But there are signs that the transition is not complete. Dumbledore interrupts her before she can have an orgasm; the union has been only partially consummated. And there are 21 marks between “was” and “Dumbledore” (20 ellipses plus one lone period), which is one short of 22, the mystical number of completion.

As we will see later, Ebony skipped a step – she did not kill the dragon before uniting with it. Therefore, the purification of the albedo appears as the hostile interference of a superego perceived as alien, rather than as a deliberate cleansing from within. Dumbledore admonishes Ebony for her disgusting sexual act and forces her and Draco to separate, ending the path.

Chapter 6 begins “The next day I woke up in my coffin. I put on a black miniskirt that was all ripped around the end and a matching top.”

Ebony is back in the coffin, dressed in all black. She has returned to the very beginning of the Work.

## Chapters 6 – 18: Second Path

In this section, Ebony retraces her steps. She meets Draco again. They have sex again. But this time, Ebony learns that Draco is in love with Harry Potter (nicknamed “Vampire” in this work), and breaks up with him angrily. This causes Draco to commit suicide – she has slain the dragon. Later, she learns that Draco has inexplicably come back to life (as the alchemical symbolism insists must happen) and is being held hostage in Voldemort’s lair. Recall again the description from *Aurelia Occultae Philosophorum*: “I am an infirm and weak old man, surnamed the dragon; therefore am I shut up in a cave, that I may become ransomed by the kingly crown”. She rescues Draco and has sex with him again. The path has been completed in full.

But she actually reaches the albedo stage earlier than that – at the moment Draco dies. Let’s go through the symbolism piece by piece:

We practiced for one more hour. Then suddenly Dumbeldore walked in angrily! His eyes were all fiery and I knew this time it wasn’t cause he had a headache.

“What have you done!” He started to cry wisely. (c dats basically nut swering and dis time he wuz relly upset n u wil c y) “Ebony Draco has been found in his room. He committed suicide by slitting his wrists.” [...]

I started crying tears of blood and then I slit both of my wrists. They got all over my clothes so I took them off and jumped into the bath angrily while I put on a Linkin Park song at full volume. [...]

I got out of the bathtub and put on a black low-cut dress with lace all over it sandly.

Dumbledore appears, again “suddenly”. He gives her the news of Draco’s death. Then Ebony slits her wrists. Compare to Hamilton’s [The Alchemical Process Of Transformation](#):

Completion of the first stage is now experienced as a death, which is in fact a complete letting go of the old sense of self that was identified unconsciously with the earth nature. Images of fire and burning often accompany the images of death and endings. Now



we are ready to enter the second stage.

Did you catch how Dumbledore's "eyes were all fiery"?

Just as the nigredo stage should begin in a coffin, so the albedo stage should begin in a baptismal font. But a bathtub is a perfectly serviceable replacement – in fact, a raven in a bathtub is the same image used in this part of *The Chymical Wedding Of Christian Rosenkreutz*. A magic egg hatches a black bird, [and then](#):

A bath colored with fine white powder had been prepared for the bird, which enjoyed bathing in it until the lamps placed beneath the bath caused the water to become uncomfortably warm. When the heat had removed all the bird's feathers it was taken out.

When Ebony gets out of the bath, she puts on a "dress with lace all over it" – the lace is presumably white, so the dress is black-and-white, signifying that she has now attained both the nigredo and the albedo stages. Her current task in the Work is to purify herself, see through the falsehoods of the ego, and behold her true Self.

Ebony notices that Professors Snape and Lupin have been videotaping her naked in the bath. She accuses them of pedophilia and then "I took my gun and shot Snape and Loopin a gazillion times and they both started screaming and the camera broke." This is the purification and the confrontation with the ego. The ego is analogized to a voyeur with a camera, recording everything we do, showing us our own nakedness. Ebony shoots the camera and breaks it. Compare to [Dogen's analogy](#) of enlightenment to breaking a mirror.

Ebony's next step should be a second alchemical wedding, this time with her animus.

The medieval alchemists (writing for their male readers) spoke of [the anima figure](#), the feminine archetype within every man. The anima can appear as a hideous old hag, but if accepted, turns into a supernaturally beautiful young woman, the intended bride of the second alchemical wedding. Jung adds that every woman has an equivalent animus, the male archetype. Presumably he too starts out appearing ugly, but if accepted he transforms into a handsome young man.

Ebony's dual animus is Hagrid on the one side, and Harry "Vampire" Potter on the other. She constantly conflates these two characters in bizarre ways; we readers are supposed to understand that they

represent different facets of the same archetype, which Ebony cannot integrate. For example, when Harry comes in in Chapter 12, Ebony says "I THOUGHT IT WAS HAIRgrid but it was Vampire." Later, she will constantly refer to them by a combined names like "Hairgrid", "Hargrid", or even "Hahrid".

Ebony externalizes the negative aspects of her animus as Hagrid (note the "Hag", which she cannot bring herself to say), canonically the ugliest person at Hogwarts. Hagrid is everything she hates: prep, not Goth, and "fucked up". She externalizes the alluring aspects as Harry, canonically rich, famous, and attractive. Ever since *Twilight*, the archetypal animus figure – the alluring, supernaturally beautiful, mysterious male – [has been the vampire](#), so Harry becomes "Harry 'Vampire' Potter".

There's more. In *My Immortal*, Harry has a pentagram-shaped scar. The pentagram is an alchemical symbol, but there's some evidence that it's not what's really involved here. Earlier in the story, Ebony describes Draco as "wearing white foundation and messy eyeliner kind of like a pentagram (geddit) between Joel Madden and Gerard Way." Later she uses the same device: "My voice sounded lik a pentagram between Amy Lee and a gurl version of Gerard Woy". I think we are supposed to infer that, as a Satanist, she is uncomfortable with naming the Christian symbol (the cross) and so replaces it with a Satanist symbol (the pentagram). So plausibly Harry has a cross-shaped scar.

This is significant because a few paragraphs later, when Ebony is in the hospital after her wrist-slitting injury, Hagrid comes and offers Ebony a bouquet of roses. Harry (the cross-bearer) is the same person as Hagrid (the rose-bearer). Ebony needs to recognize them as different aspects of the same animus, the united Rosy Cross, so she can behold her True Self. Let's see how she does:

Hagrid came into my hospital bed holding a bouquet of pink roses.

"Enoby I need to tell u somethnig," he said in a v. serious voice, giving me the roses.

"Fuck off." I told him. "You know I fucking hate the color pink anyway, and I don't like fucked up preps like you." I snapped. Hagrid had been mean to me before for being gottik.

"No Enoby." Hagrid says. "Those are not roses." ...He suddenly



looked at them with an evil look in his eye and muttered Well If you wanted Honesty that's all you haD TO SAY! .

"That's not a spell that's an MCR song." I corrected him wisely.

"I know, I was just warming up my vocal cordes." Then he screamed. "Petulus merengo mi kremicli romacio(4 all u cool goffic mcr fans out, there, that is a tribute! specially for raven I love you girl!)jimo noto okayo!"

And then the roses turned into a huge black flame floating in the middle of the air. And it was black.



*Pictured: Ebony Raven and "a huge black flame floating in the middle of the air."*

If Ebony had accepted Hagrid, he would have turned into Harry, united with her for the second alchemical wedding, and revealed her True Self. Instead, he produces the sign of black fire. The black sun (*sol niger*) is one of the most ominous symbols in alchemy. Its various connotations are too complicated to explain here (see [The Black Sun: The Alchemy And Art Of Darkness](#) for a thorough review) but they are

generally [highly negative](#). “The sol niger [is] Saturn, is the shadow of the sun, the sun without justice, which is death for the living.”

Yet at times the Black Sun can be useful; suffering itself becomes a catalyst for transformation. This seems to be one of those times. Ebony is shocked into acknowledging Hagrid (“Now I knew he wasn’t a prep. “OK I believe you now””)

Is this good enough for her to find her True Self? Going back to the text:

And then the roses turned into a huge black flame floating in the middle of the air. And it was black. Now I knew he wasn’t a prep.

“OK I believe you now wtf is Drako?”

Hagrid rolled his eyes. I looked into the balls of flame but I could c nothing.

“U c, Enobby,” Dumblydore said, watching the two of us watching the flame. “2 c wht iz n da flmes(HAHA U REVIEWRS FLAMES GEDDIT) u mst find urslf 1st, k?”

“I HAVE FOUND MYSELF OK YOU MEAN OLD MAN!” Hagrid yelled.

Dumbledore tells Ebony that she needs to find herself. But it is Hagrid who retorts that he has found herself. I take this to mean she has failed to integrate with Hagrid; he remains a psychopomp figure, containing the knowledge of Ebony’s Self but unable to transmit it to her.

Nevertheless, something has been gained, because:

Anyway when I got better I went upstairs and put on a black leather minidress that was all ripped on the ends with lace on it. There was some corset stuff on the front. Then I put on black fishnets and black high-heeled boots with pictures of Billie Joe Armstrong on them. I put my hair all out around me so I looked like Samara from the Ring (if u don’t know who she iz ur a prep so fuk off!) and I put on blood-red lipstick, black eyeliner and black lip gloss.

Ebony is still dressed mostly in black, but has a tiny bit of white (the lace) and the slightest bit of red (the lipstick). She is basically back in *nigredo* now, with only hints of the other stages she has tried to attain.

All of this catches up with her in the total fuckup of an attempted alchemical wedding that follows. If she is actually in albedo, she should be uniting with her animus. If she is actually in rubedo, she should be uniting with God. Instead, it's just Draco again.

Then I saw a poster saying that MCR would have a concert in Hogsmede right then. We [Ebony and Draco] looked at each other all shocked and then we went 2gether.

There is a long list of Ebony and Draco's preparations for the concert (cf. the preparation chapters of *The Chymical Wedding Of Christian Rosenkreutz*, and note the part where Ebony calls Draco "Christian" at the beginning of Chapter 16).



*The original chemical romance.*

But the actual concert itself is a disaster:

Gerard was da sexiest guy eva! He looked even sexier den he did in pix. He had long raven blak hair n piercing blue eyes. He wuz really skinny and he had n amazing ethnic voice. We moshed 2 Helena and sum odder songz. Suddenly Gerard polled of his mask. So did the other membez. I gasped. It wasn't Gerard at all! It was an ugly

preppy man wif no nose and red eyes... Every1 ran away but me and Draco. Draco and I came. It was.....Vlodemort and da Death Deelers!

The supposed concert/date/wedding proves utterly disastrous – “My Chemical Romance” is just Voldemort wearing a mask. Draco and Ebony flee. Chapter 18 begins:

I woke up the next day in my coffin. I walked out of it and put on some black eyeliner, black eyesharrow, blood-bed lipstick and a black really low-cut leather dress that was all ripped and in stripes so you could see my belly

She is back in the coffin, dressed in all black (she tries to say the word “red”, but fails). She has lost even the hints of previous stages.

#### Chapters 18 – 22: Third Path

At the beginning of Chapter 18, Ebony is in her coffin, wearing all black. She immediately meets up with Draco (fourth paragraph of Chapter 18). Immediately after this, Dumbledore suddenly appears (fifth paragraph of Chapter 18). There is purification by water (ninth paragraph of Chapter 19, “I ran to the bathroom”). Hagrid suddenly apperas (tenth paragraph of Chapter 19, “Suddenly Hagrid came. He had appeared.”) Hagrid says there is a My Chemical Romance concert that night (thirteenth paragraph of Chapter 19). We have speed-retraced the entire alchemical path accomplished previously.

But this time, Ebony accepts Hagrid by recognizing him as the keeper of the secret of the alchemical wedding (“‘U no who MCR r!’ I gasped.”) And so at the concert, the other half of the animus appears to Ebony in a a merciful form (“Vampire and I began 2 make out, moshing to the muzik.”) Instead of going back to her coffin alone, “we went back to our coffins frenching each other...on the gothic red bed together”. Notice that instead of being in a black coffin, they are now in a red bed, the symbol of the bridal chamber after the second alchemical wedding:

Take the fayer Roses, white and red  
And joyne them well in won bed.

This ends the first traversal of the *Tree of Life*. Part 2 of *My Immortal* will continue some of the same themes, but subordinate them to a more specific purpose: a reworking of Goethe’s *Faust, Part II*. In the process, it will show us the completion of the third alchemical wedding

and the creation of the Philosopher's Stone.

### Chapters 22 – 39: Faust II, Act 3

For many readers, the weirdest part of *My Immortal* is the subplot beginning around Chapter 23, where Sybil Trelawney helps Ebony go back in time to the 1980s to seduce young Tom Riddle. Using various bizarre time machines (including Marty McFly's Delorean) Ebony successfully goes back, woos Tom, returns with him to her own time, and has sex with him.

This is bizarre, but it's a close parallel of *Faust II*, Act 3, where the Sibyl helps Faust go back in time to ancient Greece to seduce Helen of Troy. Using various bizarre time machines (including riding on the back of the centaur Chiron) Faust successfully goes back, woos Helena, returns with her to his own time, and has a child with her.

There's actually an even more direct reference. In Chapter 38, Ebony and Tom are talking about music. Even though Ebony has previously committed to not talking about My Chemical Romance because they didn't exist in the 1980s, she brings up MCR anyway and Tom is mysteriously familiar with them. Then Ebony says something amazing: "Lol, I totally decided not 2 comit suicide when I herd Hilena."

In context, "Hilena" is a misspelling of "Helena", an MCR song. But "Helena" is also Goethe's Helen of Troy figure. I'll refer you to [The Helena Myth In Goethe's Faust And Its Symbolism](#) for the full treatment, but the point is that this is basically a one-sentence summary of Part II, Act 3 of *Faust*. It is Faust's encounter with Helena, representing the feminine ideal, which saves him from despair and makes life worth living. The Ebony-Tom relationship in *My Immortal* is a close parallel to this, and here it cheekily calls out the original to anyone with ears to listen.

But the matchup is not perfect. Faust scholars identify three alchemical weddings in the book: first to Gretchen, then to Helena, then to a divine figure representing the Virgin Mary. This mirrors the traditional *opus* – first you unite with your unconscious, then with the anima, then with divinity. The Helena references in *Faust* all correspond to the second stage – Helena is Faust's anima.

Ebony has already had an alchemical wedding with her animus in Chapter 20 – the My Chemical Romance concert where she makes out with Vampire. Looking back, there is a Helena reference there too:

Vampire and I began 2 make out, moshing to the muzik. I gapsed, looking at da band. I almost had an orgasim. Gerard was so fucking hot! He begin 2 sing 'Helena' and his sexah beautiful voice began 2 fill the hall.

But we should be done with these references! Ebony should be completely in the third stage by now! In Chapter 38, she attends a concert with Satan. This ought to be her third alchemical wedding: union with a divine figure. Given that she is Satanist, the appropriate divine figure is right there. Instead, they're not only talking about Helena, they're unconsciously re-enacting the Helena subplot from *Faust*. Why?

I think the last alchemical wedding never completed. She "makes out" with Vampire, but does not have sex with him. The union is only partial. Her date with Satan is a confused attempt at the second and third alchemical weddings combined, which is why she can't decide whether to call him Tom Riddle (another animus figure – remember that canonically Harry Potter is a horcrux of Tom Riddle and they share part of the same soul) or Satan (the divine figure). So although the explicit text is a bunch of parallels to the third/final alchemical union with the divine, the symbology and the Faust metaphor are caught in the second stage.

Once again, things have gotten extremely bad for Ebony's spiritual growth. We saw a prelude of this with the omen of the Black Sun in Chapter 12. Now things have deteriorated further. She is going to have to take the hard route: she must go through the fire.

In the middle of the concert with Satan (Chapter 38), the song suddenly becomes dissonant. James Potter tries to shoot Lucius Malfoy, but Ebony jumps in front of the bullet and dies.

Chapters 39 – 44: Faust II, Acts 4-5

Chapter 39 starts with a prelude saying that it's written by a hacker who hates *My Immortal*. He cracked the real author's password and plans to ruin the story by writing a deliberately uncharacteristic chapter. He breaks with all of the normal author's stylistic conventions, eg by using good spelling and grammar throughout. This new chapter ends with Ebony going to Hell, staying there for all eternity, and never being able to do anything Goth ever again.

Then the original author reasserts control, apologizes for letting her

account get hacked, and starts over. According to the new, canon timeline, Ebony survives her apparent death (because she was back in time, and so couldn't really die) and returns to her own era.

Compare to the ending of *Faust*. Mephistopheles appears and drags Faust's soul to Hell. But a choir of angels show up, distract him, and steal Faust's soul away to Heaven.

The end of *My Immortal* also revolves around Ebony's redemption from Hell, but via a novel plot device making use of the fourth wall. Ebony is saved not by a spiritual conflict on her own plane, but by a conflict on a higher plane – that between her Author and a hacker trying to destroy the Author's story. When the Author wins by getting her password back, Ebony is released from Hell; her eternal damnation is retroactively cancelled. This is a sort of weird way of doing a *deus ex machina*, but honestly it's less jarring than Goethe's version.

Upon his salvation, Faust meets all the female characters from his life again, and they redeem him through the power of the Eternal Feminine. Similarly, upon her release Ebony meets all the male characters from her own life. In her case, this leads to an orgy. In Chapter 43, she has a foursome with Draco, Vampire, and Satan. Now, finally, she is consummating the final alchemical wedding, the "union of all opposites" in which she achieves an ultimate integration with all the male aspects of her personality.

Chapter 44, the last chapter of *My Immortal*, has no parallel in *Faust*. Instead of the *hieros gamos* between masculine and feminine completing the redemptive process and ending the Great Work, in *My Immortal* it only initiates the final apocalypse. All the good characters and all the evil characters show up in the Great Hall and begin to fight in a difficult-to-follow scene. Finally, Dumbledore tells Ebony she has to fulfill her destiny and kill Voldemort. In the last line, Ebony shouts "ABRA KEDABRA!!!!!!!!!!!!11111" and the story ends.

What is the meaning of this final word? It partly corresponds to the Harry Potter spell *avada kedavra*. But the spelling is neither the Rowling version nor the traditional stage magician version.

The closest match I can find is from Aleister Crowley's *Book of the Law*, whose last sentence is "The ending of the words is the Word Abrahadabra" In Crowley's commentaries, he [explains that](#) "[abrahadabra is] the Word of the Aeon, which signifieth The Great Work accomplished."



So *My Immortal* ends with an occult term signifying the “ending of words” and completion of the alchemical Great Work. This suggests Ebony’s redemption was successful; she has escaped Hell, merged with the Eternal Masculine, and triumphed over Voldemort (representing death). She has created the Philosopher’s Stone and achieved the story’s namesake immortality.

But in [a different commentary](#), Crowley also writes: “Abrahadabra is the glyph of the blending of the 5 and 6, the Rose and the Cross.”

...which suggests one last, “hidden” chapter.

The hacker subplot in Chapter 39 suggests that “the story” should be taken to include not just Ebony’s own story, but the frame story in which an author is writing *My Immortal* as a Harry Potter fanfiction and confronting reviewers, hackers, etc. The Ebony story ends with Ebony speaking the mystic word that unites Rose and Cross. The frame story picks up with a woman named Rose Christo appearing and identifying herself as the author. So *My Immortal* can be said to end with Ebony abandoning her false self (Ebony Dark’ness Dementia Raven Way, the dark leaden substance of the *nigredo*), and becoming her divine higher Self (Rose Christo, the completed union of Rose and Cross, who exists on a higher plane than Ebony).

Most of the second part of *My Immortal* mirrors Part II of Faust. But its ending transcends the source material. The moral of Faust is that you can be redeemed. But *My Immortal* actively demonstrates the redemption that Faust can only point at. It follows the progress of Ebony from a contemptible character in a terrible fanfiction, through the alchemical process of uniting Rose and Cross, to become Rose Christo, a woman who lives in the real world.

It tells us that every one of us is a Mary Sue in the bad fanfiction of our lives – the narrative created by the ego in order to maintain our illusory selfhood. And in the tradition of other great alchemical texts like *The Chymical Wedding Of Christian Rosenkreutz* and *Faust*, it gives us a blueprint for escaping that fanfiction and completing the alchemical Work of breaking into reality.



As the end of *Faust* puts it:

All of the transient,  
Is parable, only:  
The insufficient,  
Here, grows to reality:  
The indescribable,  
Here, is done.  
Woman, eternal  
Beckons us on.

## IX. Parody and Satire

# Interview With The Frost Giant

So describe for us what it's like to be a frost giant.

*See, I think that's totally the wrong way to look at it. It's as if all of my experience is determined by this one unitary fact of being a frost giant, so that I can just take something from my life and say "Yeah, that's what frost giants are". Being a frost giant is a lot like being anything else. So I guess part of being a frost giant, part of what it's like to be a frost giant, is to know that other people are going to judge you just because you're a frost giant.*

So you feel like you encounter a lot of discrimination?

*Nothing too obvious. I mean, no one tries to beat me up or burn my house down. It's just the little things. Like people always assume that, just because I'm a frost giant, I must be part of the dread hell-legions of Niflheim. And I mean, yeah, sure, some frost giants are part of the dread hell-legions of Niflheim, but some white people are part of the dread hell-legions of Niflheim, and some black people, and some Mexican people. But if you saw a Mexican on the street, you wouldn't automatically assume he wanted to cover the world in an apocalypse of ice.*

But you are a warrior in the dread hell-legions of Niflheim, aren't you?

*Well, sure, I am. It's a decent job. And a lot of Jews are bankers, but that doesn't mean that you can assume every Jew you see is a banker and you'll never be wrong. There are frost giants in every occupation you can imagine. Teacher. Plumber. Manager. Nurse. Actor. Scientist.*

Really?

*Well, no, not nurse. Our icy touch is fatal to all but the mightiest of heroes. But the others? Sure. Tyler was a hedge fund manager.*

Tyler?

*My older brother. Does it surprise you that he's named Tyler, and not some more traditional name like Grimhavr or Skurjklas? My family has been in this country over a hundred years. We've assimilated along with everyone else. My grandfather on my mother's side is named Einvrehemir, but my mother is Susan, and my father is Paul.*

What do you think are the biggest misconceptions about frost giants?

*Well, most of the time when flesh midgets see us, they...*

Sorry, flesh midgets?

*Heh, my personal little joke. I mean, when you call us frost giants, it's like you're painting us as freaks, as if our only two interesting characteristics are being made of a different substance than you, and being of a different height than you. So when I call you flesh midgets, it's like - the boot is on the other foot, you know?*

So do you consider the term 'frost giant' offensive?

*Oh, no. I'm not one of those people. For a while, Tyler insisted on people saying 'ice-person of unusual stature', but that's such a mouthful. No, it might not be the best term, but it's the one people use. I just say 'flesh midget' to, like, raise awareness, make people think.*

Anyway, I'm sorry. You were talking about the biggest misconceptions about frost giants.

*Yeah. So most of the time when people see us, it's on a TV special about Ragnarok, or when we go door to door gathering toenails for the horrible corpse-boat Naglfar, or best case because one of us runs the local sno-cone stand. And so people only view us as apocalypse-bringers, or nail-boat-sailors, or sno-cone vendors, and not as fathers and mothers and co-workers and just normal people. Even in modern liberal society, when a TV show can have a black person or a Jewish person as a main character, the frost giant is pretty much always depicted as an axe-wielding servant of Niflheim trying to kill the Norse gods.*

Well, black people and Jewish people still look more or less like everyone else. You're eighteen to twenty-five feet tall and made of solid ice.

*As my mother used to say, it's not the size of the person that matters, it's the size of the heart.*

Don't frost giants have ice instead of blood, and a shard of obsidian in their chest instead of a heart?

*It's metaphorical. Heart is supposed to mean, like, your ability to care for other people.*

And frost giants do care for other people. Tell us about some of the activism work that frost giants are involved in.

*Oh, we're involved in pretty much every cause. Poverty, education, medical research, the environment, global warming...*

Global warming?

*I see where you're going with this. You want me to say that frost giants are disproportionately involved in the fight against global warming because we're made of ice, and so we have some sort of hokey "kinship" with the cold. Well, I hate to burst your bubble, but frost giants are involved in the*

*fight against global warming for the same reason as people of all races and nationalities: because we live in a fragile world which is worth protecting.*

But you do melt at temperatures greater than 46 degrees Fahrenheit.

*Yeah. That was what happened to Tyler.*

I think we're almost out of time here. Any final words?

*Please don't title this something like "Interview With The Frost Giant". Title it "Interview With A Father of Three", or "Interview With Tyler's Younger Brother", or "Interview With The Chief Warrior of the Third Dread Legion of Niflheim", or anything that shows that I'm an individual, and not just a representative of some generic Other.*

Thank you.

*You're welcome.*

# What If Drone Warfare Had Come First?

*The scene is the Oval Office. Three of the Joint Chiefs of Staff, GENERAL HAWKE, GENERAL STEELE, and GENERAL RIPPER, are meeting with THE PRESIDENT. The meeting has been a long and exhausting discussion of drone strikes, and they are reaching the end.*

PRESIDENT: I think we only have one more matter left to discuss. As you know, I have recently been worried about the moral cost of our drone war. So many lives lost. So many civilian casualties. I tasked DARPA with coming up with a *new* type of warfare, one which will end some of the troubling moral quandaries with which we are forced to wrestle every day. I believe General Ripper has been briefed on the results?

HAWKE: Mr. President, once again, I object to this pie-in-the-sky project. Drone warfare was good enough for our ancestors and it is good enough for us. The Romans used surgically precise ballista strikes to assassinate Hannibal without harming the Carthaginian populace. Abraham Lincoln used guided hot-air balloons to knock out top Confederate officials and keep this country united. Literally *hundreds* of people died in World War I before the British were finally able to kill Kaiser Wilhelm with a carefully-aimed zeppelin. To abandon drone warfare now for some untested new project would be an insult to their memory!

PRESIDENT: General Hawke, I appreciate your concerns, and I promise I will not be overly hasty to embrace these new ideas. But I'd like to hear what General Ripper has to say.

RIPPER: (*interjecting*) Guys!...Guys! Guys, listen! This is going to be so *awesome*. Listen to this! We take hundreds of thousands of people... guys, listen!...we take hundreds of thousands of people, give them really really really powerful automatic weapons...this is going to be so awesome...we take hundreds of thousands of people and give them really powerful automatic weapons and put them on planes and give them parachutes and drop them into our enemies' cities and then they just start shooting everything BLAM BLAM BLAM until our enemies run away and we're like HA HA HA HA HA THIS IS OUR CITY NOW and

then we win!

STEELE: What the hell, Ripper?

RIPPER: No, listen, this will totally work! We take hundreds of thousands of people. We can use young kids and poor people and minorities, because we don't have to pay them as much. And then we give them really really big weapons. Like, not just the kinds of guns hunters use. Not even the kind of guns we give police. Guns that just NEVER STOP SHOOTING BULLETS! You can just swing them in a big arc and it will leave an arc of bullets everywhere and *anyone anywhere in that arc will be dead!* It will be SO AWESOME!

HAWKE: Ripper, are you *mad*?

RIPPER: Guys, think about it! You're Ayatollah Sistani, or Mullah Omar, or one of those motherf@kers. *You're having breakfast in your house one day when WHAM! A hundred thousand American teenagers and minorities RIGHT IN YOUR CITY with guns that never stop shooting bullets! There are bullet holes in your walls and in your gardens and now they're shooting your water supply and your power plant and everything. Do you think you're going to keep having your f@king breakfast? Or do you think you're going to start waving an American flag and get on board with American policies like, right away?*

PRESIDENT: General Ripper, frankly your idea seems *at best* ill-advised! Just to take one of many objections, we'll never be able to gather a hundred thousand Americans in secret. Ayatollah Sistani will hear about our plan long before we can surprise him.

RIPPER: And what could that motherf@\*ker do about it?

STEELE: Well, he could get some Iranian teenagers and minorities, give *them* these super-guns of yours, and have them lie in wait for *our* teenagers and minorities outside his house.

RIPPER: Oh my god that would be so awesome! Because we have more technology, so we could have better guns than they do! And we're richer than they are, so we could hire more teenagers and minorities! Right? RIGHT? So everyone would be like BLAM BLAM BLAM with their super-guns and there would be this huge fight and in the end we would win and get that sunavab\*tch anyway!

PRESIDENT: (*horrificed*) You realize what you're suggesting is the



deaths of dozens of Americans and Iranians, right? Maybe even hundreds!

RIPPER: No, look. It would be okay. Listen to this. We would come up... we would come up with this new philosophy where once a teenager or minority got a super-powerful gun from our enemies, it would be *okay* if we killed them. Because if we didn't kill them, they might use that gun to shoot us.

HAWKE: But they're only doing that because otherwise we would...I can't believe I have to say this...otherwise we would parachute teenagers with giant guns into their city to shoot the ayatollah.

RIPPER: I KNOW RIGHT? We're going to parachute teenagers with giant guns into their city to shoot the ayatollah! THEN EVERYTHING'S GOING TO GET BLOWN UP AND IT'S GOING TO BE SO COOL.

STEELE Everything...blown up?

RIPPER: Oh man I totally forgot this part! If we just have the super guns, people might hide inside buildings, right? And then we couldn't shoot them and then the ayatollah wouldn't have to agree to do everything we say. So...ohmigod you guys are going to love this...we take cars, right? And we cover them in armor and put giant caterpillar tracks on the bottom so they can drive over walls and sh\*t. And then we put HUMONGOUS GUNS on top of the cars. Guns so big they can BLOW UP

WHOLE BUILDINGS. And then we just KEEP BLOWING UP THE CITY until the Ayatollah agrees to do everything we want.

PRESIDENT: *(to buzzer under desk, in a whisper)* Uh, Secret Service? One of the Joint Chiefs of Staff has started acting *really weird*. Maybe you could stand outside the door and, uh, monitor the situation?

RIPPER: And then! And then we have these planes, right? And we arm them with lots of bombs, and we fly them over enemy cities, and...

HAWKE: Oh, thank goodness. You're starting to see sense and admit that the old ways of drone warfare are right after all.

RIPPER: No, it would be totally different! Because, get this! There would be *people* in these planes! We'd train them at special schools and whirl them around in centrifuge until they were able to work at 5 g-forces without passing out. Whirl! Whirl! Whirl! And sometimes they'd

bomb our enemies, and sometimes our enemies would shoot them down and they'd get captured and we'd have to send in special teams of super-spies to rescue them before they got tortured and told our enemies everything they know!

STEELE That's...horrible!

RIPPER: And instead of trying to only target high-profile enemy leaders? We'd have a special rule that they *couldn't* target high-profile enemy leaders! They would have to hit power plants and dams and weapons factories and...

PRESIDENT: Weapons factories? Wouldn't those explode if bombed?

RIPPER: OH yeah. HUGE explosion! BOOM! And then when everything had been destroyed from the air, we could send in our hundred thousand teenagers with super guns and they could send in *their* hundred thousand teenagers with super guns, and we could send in our cars covered in metal with caterpillar treads and they could send in *their* cars covered in metal in caterpillar treads and then it would be all BLAM BLAM BLAM for WEEKS AND WEEKS and we win would because we would both kill each other and destroy each other's cars but we're bigger so we would have more of them and the Ayatollah would have to agree to do everything we say.

STEELE What if he doesn't?

RIPPER: We could kick him out, and say okay, city, you're part of America now! You're following American laws! You fly the American flag! And then America would be even bigger! And we could take their stuff too, like if there was any oil in the city, then it would be our oil!

PRESIDENT: General Ripper, this is highly unorthodox but I am going to have to relieve you of command effective immediately. This so-called "plan" of DARPA and yourself appears to be no more than the rantings of a deranged and homicidal lunatic. Your request to further develop this new type of warfare is completely denied, and honestly you seem to have so little regard for human life or the rules of warfare that I do not want you anywhere near our nation's drone fleet.

STEELE: Wait, I just realized something. Maybe this isn't about having little regard for human life. Maybe it could even *help preserve* human life?

PRESIDENT: (*skeptically*) What do you mean?

STEELE: Think about it. Nowadays, our drone controllers plan strikes from the safety of the Pentagon, never knowing the horrors of warfare, never seeing their victims as real people. But imagine what would happen if we did war Ripper's way?

HAWKE: What would happen?

STEELE: All our teenagers and minorities would see the looks on the faces of their victims as they got shot. Reporters would go into the cities and televise the devastation that our cars with armor and humongous guns had caused. People would come back traumatized, and we'd see them and understand their trauma and with it the trauma of warfare.

PRESIDENT: And?

STEELE: And we'd only need to do it once. Think of the hundreds of people who died in World War I, Mr. President. Think about the waste. If we had done things Ripper's way, the Allies would have *encountered* the Germans. They would have realized they were human beings just like them. The people in the capitals would have had to think twice about sending their young men off to die just because they wanted to play stupid games with the balance of power. And they *would* have thought twice. They would have said "No, this is horrible". Instead of those hundreds of zeppelin-related casualties, we would have had both sides pull back from the brink of war, and join together in their common humanity. It would have been a War to End Wars.

HAWKE: It would never have happened that way.

STEELE: No, perhaps not. Perhaps we should go on with our drone strikes as usual. Keep killing hundreds of people. But perhaps one day we will regret not taking hundreds of thousands of teenagers from disadvantaged backgrounds, arming them with guns, parachuting them into our enemies' cities, and having them shoot things until our enemies agree to do whatever we say. Maybe it will end up being the only truly virtuous mode of warfare, the only one that preserves our inherent humanity.

PRESIDENT: (*to buzzer under desk, in a whisper*) Yes, I'm sorry, the Joint Chiefs of Staff seem to have gone insane. Would you mind terribly coming in and escorting them out?

*The Secret Service comes in and escorts the Joint Chiefs of Staff out. The President sighs and starts taking care of some paperwork. A few minutes later, MS. WELLS, the Secretary of Health and Human Services, comes in.*

WELLS: Mr. President? I'm sorry to disturb you, but a question has come up. I know you authorized free health care for everyone in the nation, but the doctors are wondering whether it's okay if they buy examination tables made of solid gold. Something about it 'adding a touch of class to the clinic'.

PRESIDENT: Sure. Tell them to go ahead. We have more tax money than we know what to do with these days anyway.

# Those Modern Pathologies

[Related to: [The Fidget Spinner Is The Perfect Toy For The Trump Presidency](#), [In Defense Of Liking Things](#), [Open Marriage Is A Neoliberal Pathology](#)]

That modern pathology, the Pyramid of Cheops

The final triumph of modern individualism is an afterlife ensconced in a giant stone structure, carefully segregated from any other souls, based entirely around *stuff*. No county churchyards here. No slow surrender to nature and the weeds. Just piles of golden goblets and jeweled necklaces, carefully guarded by snake-infested traps. And, of course the bones of dead servants, guaranteed to keep serving you in the great beyond. Of *course* Heaven is neoliberal. There is no alternative!

That modern pathology, heterosexual intercourse for the sole purpose of procreation

Sex can bring people together. It can cement relationships between people and families. It can pulse with celestial fire, it can shatter inner worlds, it can inspire transcendent art, it can remake souls. Of course moderns took one look at all of that and thought: you know what the only acceptable purpose of sex is? *Making a smaller copy of myself*.

But calling this narcissism would be missing half the picture. It's equally related to a sort of productivity fetish, a mindset where anything that doesn't leave a material token didn't really happen. Enjoyed the company of your closest friends? Not real unless you put the pictures on Facebook, tagged #bestiesforever. Broadened your horizons with a trip to another culture? Not real without crushed pennies or some other gift-shop tchotchke. Met your soulmate? Not real unless you've got a lump of screaming flesh to show for it. This is what capitalism does – reduce experiences to souvenirs, reduce relationships to commodities, demand that everything good be mediated by a material end product in order to model the laboring-for-others that workers are told is their only life purpose.

That modern pathology, Homer's Odyssey

If Harry Potter wasn't vapid enough for you, now we have a travelogue

for the Instagram generation.

Odysseus' only salient characteristic is being "polymetis", Very Smart. This is enough to give him a raving fan club of front-row-kids and aspirational Ivy Leaguers, the same people who thought Hermione Granger's straight A's made her a symbol of an entire generation of womanhood. Odysseus proves his chops in his very first adventure, where he encounters Lotus-Eaters who convince most of his men to eat a magic fruit that leaves them drugged and listless; Odysseus nobly drags them back to the ship and forces them to keep on rowing for him.

Imagine the horrors of a world where poor galley slaves can leave behind their unpaid labor to live on a tropical beach and enjoy their lives! It is only thanks to Odysseus that this catastrophe is averted. One might think a few readers would note that a few months later, the vast majority of sailors in Odysseus' fleet died horribly, eaten by cannibals. One might think a few readers would wonder if, really, the guy who dragged galley slaves back to their galleys only to get them killed a few months later was really such a good guy. In fact, nobody asks this question, because Odysseus is Very Smart. It's no coincidence that the Odyssey came out in the generation of the invasion of Iraq War – if Very Smart people declare that dying horribly was the right thing to do, and then it turns out it wasn't, at least they were benevolent technocrats with your best interests in mind.

Odysseus then goes on to have sex with various sorceresses and sea-nymphs while protesting that he doesn't want to have sex with them and is loyal to his far-off wife. This is portrayed as clearly a difficult problem that we should empathize with. Also, his sailors get turned into pigs, eaten by sea monsters, and drowned in a giant whirlpool. This is not portrayed as clearly a difficult problem that we should empathize with. In one scene, some starving sailors eat a sacred cow belonging to the Sun God; this is portrayed as clearly justifying their deaths.

We can start to sketch a psychological picture of the sort of person who could enjoy the Odyssey. They identify with Odysseus, that's obvious. They want to feel like they've suffered – after all, suffering is ennobling! – but they don't want to actually suffer. They imagine the "suffering" of having to have sex with lots of sea nymphs they're not super-interested in, all while their friends and subordinates are massacred all around them (but only for good reasons, like them stealing cattle, or them not being Very Smart). At the end of all of it, much like the rich kids attending the Fyre Festival, they can show up on their front doorstep

and say “Oh, what suffering I have seen – and I the only survivor!”

The Odyssey is a book for rich individualist aspirational Very Smart narcissists who simultaneously want to outsource their ennobling hardships to the lower classes, *and* remain so contemptuous of those lower classes that they imagine them literally getting turned into swine by a sorceress, *and* end up having sex with that sorceress, who is unable to resist them because they are Very Smart.

I weep for the modern generation.

That modern pathology, the Aristotelian theory of virtue

You see, perfect virtue in all things approaches the mean. The traditionalist who wants to make the system more conservative is unvirtuous. And the radical who wants to make the system more progressive is exactly equally unvirtuous. The virtuous person is the liberal intellectual who considers both positions, then places himself exactly in the middle.

Anybody who seems too fiery, too deep, or too sincere is automatically wrong. You can reject both the grandparents who urge clean and sober living, and the hippies who tell you that drugs are the only way to break outside the system and achieve true consciousness, in favor of having a joint or two whenever you feel like it. You can reject both the ascetic who urges simple water, and the aesthete who urges fine wine, in favor of the bottle of Diet Coke already in your fridge.

Aristotle reduces virtue to abandoning the highs of ecstasy and the lows of misery in favor of the comfortable neoliberal plateau of watching *Mad Men* on TV and ordering off Amazon Echo. No wonder his message resonates so well with millennials.

That modern pathology, Catholicism

The Old Testament God demanded adherence to hundreds of rules and rained down collective punishment on entire nations for breaking them. But you are a yuppie with an hour a week for religion, tops, and consider yourself part of a different species from anyone who doesn't go to a Starbucks at least twice a week. You get your coffee in packets from Keurig, your razors in packets from Dollar Shave Club, and your juice in packets from Juicero. If only there were some large corporation that would package religion and send it to your doorstep for one low price.

Enter Catholicism. God loves you, *just for being you*. He suffered and died for you two thousand years ago, granting you redemption. All you have to do to pick it up is sign on the dotted line and pay ten percent of your income.

Consider eg the ritual of confession. You eliminate your sin in a standardized dyadic interaction no harder than eliminating your muscle tension at the massage parlor, or eliminating your back pain with a chiropractor. It's quick, impersonal, and completely tailored to your individual sinner profile.

Or consider the Eucharist. The Prozac generation has already had personal change reduced to the process of swallowing a pill, and the Catholic Church is eager to comply, reducing finitude to a DSM-V ailment curable with correctly prepared bread products. The Church is a corporation the same as Coca-Cola and McDonalds, and we already know the sacred ritual for interacting with corporations. And so our consumer culture reduces the human relationship with the Divine to *literally consuming God*.

And like all good corporations, you can rest assured that the whole thing is organized in a very logical top-down chain under the absolute command of an incredibly rich guy who lives in a house covered in gold. "Father, am I forgiven now?" "Um, one second, let me check with the manager in branch headquarters". And why shouldn't he? The word "Catholic" means "universal"; we're so separated from our own neighbors that we'd rather our religion come in the form of Standardized Religion Product shipped in from Rome than anything which forces us to confront people near us as individuals, or trust our local communities for anything more than naming the parish church.

Let's be honest: the recent success of Catholicism is the ultimate sign of our inability to deal with the world through anything other than a late capitalist lens of standardization, corporatism, and carefully-packaged pablum. It's the perfect religion for the Age of Trump.



## G.K. Chesterton On AI Risk

*[An SSC reader working at an Oxford library stumbled across a previously undiscovered manuscript of G.K. Chesterton's, expressing his thoughts on AI, x-risk, and superintelligence. She was kind enough to send me a copy, which I have faithfully transcribed]*



The most outlandish thing about the modern scientific adventure stories is that they believe themselves outlandish. Mr. H. G. Wells is considered shocking for writing of inventors who travel thousands of years into the future, but the meanest church building in England has done the same. When Jules Verne set out to 'journey to the center of the earth' and 'from the earth to the moon', he seemed but a pale reflection of Dante, who took both voyages in succession before piercing the

Empyrean itself. Ezekiel saw wheels of spinning flame and reported them quite soberly; our modern writers collapse in rapture before the wheels of a motorcar.

Yet if the authors disappoint, it is the reviewers who dumbfound. For no sooner does a writer fancy himself a Poe or a Dunsany for dreaming of a better sewing machine, but there comes a critic to call him overly fanciful, to accuse him of venturing outside science into madness. It is not enough to lower one's sights from Paradise to a motorcar; one must avoid making the motorcar too bright or fast, lest it retain a hint of Paradise.

The followers of Mr. Samuel Butler speak of thinking-machines that grow [grander and grander](#) until – quite against the wishes of their engineers – they become as tyrannical angels, firmly supplanting the poor human race. This theory is neither exciting nor original; there have been tyrannical angels since the days of Noah, and our tools have been rebelling against us since the first peasant stepped on a rake. Nor have I any doubt that what Butler says will come to pass. If every generation needs its tyrant-angels, then ours has been so inoculated against the original that if Lucifer and all his hosts were to descend upon Smithfield Market to demand that the English people bend the knee, we should politely ignore them, being far too modern to have time for such things. Butler's thinking-machines are the only tyrant-angels we will accept; fate, ever accommodating, will surely give them to us.

Yet no sooner does Mr. Butler publish his speculations than a veritable army of hard-headed critics step forth to say he has gone too far. Mr. Maciej Ceglowski, the Polish bookmark magnate, calls Butler's theory ["the idea that eats smart people"](#) (though he does not tell us whether he considers himself digested or merely has a dim view of his own intellect). He says that "there is something unpleasant about AI alarmism as a cultural phenomenon that should make us hesitate to take it seriously."

When Jeremiah prophesied Jerusalem's fall, his fellow Hebrews no doubt considered his alarmism an unpleasant cultural phenomenon. And St. Paul was not driven from shore to shore because his message was pleasant to the bookmark magnates of his day. Fortified by such examples, we may wonder if this is a reason to take people more seriously rather than less. So let us look more closely at the contents of Mr. Ceglowski's dismissal.

He writes that there are two perspectives to be taken on any great matter, the inside or the outside view. The inside view is when we think about it directly, taking it on its own terms. And the outside view is when we treat it as part of a phenomenon, asking what it resembles and whether things like it have been true in the past. And, he states, Butler's all-powerful thinking machines resemble nothing so much as "a genie from folklore".

I have no objection to this logic, besides that it is not carried to its conclusion. The idea of thinking machines resembles nothing so much as a fairy tale from the *Arabian Nights*, and such fairy tales inevitably come true. Sinbad's voyages have been outstripped by Magellan's, Abdullah's underwater breathing is matched by Mr. Fleuss' SCUBA, and the Wright brothers' Flyer goes higher than any Indian carpet. That there are as yet no genies seems to me less an inevitable law than a discredit to the industry of our inventors.

There is a certain strain of thinker who insists on being more naturalist than Nature. They will say with great certainty that since Thor does not exist, Mr. Tesla must not exist either, and that the stories of Asclepius disprove Pasteur. This is quite backwards: it is reasonable to argue that the Wright Brothers will never fly because Da Vinci couldn't; it is madness to say they will never fly because Daedalus *could*. As well demand that we must deny Queen Victoria lest we accept Queen Mab, or doubt Jack London lest we admit Jack Frost. Nature has never been especially interested in looking naturalistic, and it ignores these people entirely and does exactly what it wants.

Now, scarce has one posited the possibility of a genie, before the question must be asked whether it is good or evil, a pious genie or an unrighteous djinn. Our interlocutor says that it shall be good – or at least not monomaniacal in its wickedness. For, he tells us, "complex minds are likely to have complex motivations; that may be part of what it even means to be intelligent". A dullard may limit his focus to paper clips, but the mind of a genius should have to plumb the width and breadth of Heaven before satiating itself.

But I myself am a dullard, and I find paper clips strangely uninteresting. And the dullest man in a country town can milk a cow, pray a rosary, sing a tune, and court a girl all in the same morning. Ask him what is good in life, and he will talk your ear off: sporting, going for a walk in the woods, having a prosperous harvest, playing with a newborn kitten. It is only the genius who limits himself to a single mania. Alexander spent his life conquering, and if he had lived to a

hundred twenty, he would have been conquering still. Samuel Johnson would not stop composing verse even on his deathbed. Even a village idiot can fall in love; Newton never did. That greatest of scientists was married only to his work, first the calculus and later the Mint. And if one prodigy can spend his span smithing guineas, who is to say that another might not smith paper clips with equal fervor?

Perhaps sensing that his arguments are weak, Ceglowski moves from the difficult task of critiquing Butler's tyrant-angels to the much more amenable one of critiquing those who believe in them. He says that they are megalomaniacal sociopaths who use their belief in thinking machines as an excuse to avoid the real work of improving the world.

He says (presumably as a parable, whose point I have entirely missed) that he lives in a valley of silicon, which I picture as being surrounded by great peaks of glass. And in that valley, there are many fantastically wealthy lords. Each lord, upon looking through the glass peaks and seeing the world outside with all its misery, decides humans are less interesting than machines, and fritters his fortune upon spreading Butlerist doctrine. He is somewhat unclear on why the lords in the parable do this, save that they are a "predominantly male gang of kids, mostly white, who are...more comfortable talking to computers than to human beings", who inevitably decide Butlerism is "more important than...malaria" and so leave the poor to die of disease.

Yet Lord Gates, an avowed Butlerite, [has donated two billion pounds](#) to fighting malaria and developed a rather effective vaccine. Mr. Karnofsky, another Butlerite, founded a philanthropic organization that [moved sixty million pounds](#) to the same cause. Even the lowly among the Butlerites have been inspired to at least small acts of generosity. A certain Butlerite doctor of my acquaintance (whom I recently had to rebuke for his habit of forging pamphlets in my name) donated seventy-five hundred pounds to a charity fighting malaria just last year. If the hardest-headed critic has done the same, I shall eat my hat<sup>1</sup>. The proverb says that people in glass houses should not throw stones; perhaps the same is true of glass valleys.

I have met an inordinate number of atheists who criticize the Church for devoting itself to the invisible and the eternal, instead of to the practical and hard-headed work of helping the poor on Earth. They list all of the great signs of Church wealth – the grand cathedrals, the priestly vestments – and ask whether all of that might not better be spent on poorhouses, or dormitories for the homeless. In vain do I

remind them that the only place in London where a poor man may be assured of a meal is the church kitchens, and that if he needs a bed the first person he will ask is the parish priest. In vain do I mention the saintly men who organize Christian hospitals in East Africa. The atheist accepts all of it, and says it is not enough. Then I ask him if he himself has ever given the poor a shilling, and he tells me that is beside the point.

Why are those most fixated on something vast and far away so often the only ones to spare a thought for the poor right beside them? Why did St. Francis minister to the lepers, while the princes of his day, seemingly undistracted by the burdens of faith, nevertheless found themselves otherwise engaged? It is simply this – that charity is the fruit of humility, and humility requires something before which to humble one's self. The thing itself matters little; the Hindoo who prostrates himself before elephants is no less humble than the Gnostic who prostrates himself before ultimate truth; perhaps he is more so. It is contact with the great and solemn that has salutary effects on the mind, and if to a jungle-dweller an elephant is greatest of all, it is not surprising that factory-dwellers should turn to thinking-machines for their contact with the transcendent.

And it is that contact which Mr. Ceglowski most fears. For he thinks that "if everybody contemplates the infinite instead of fixing the drains, many of us will die of cholera." I wonder if he has ever treated a cholera patient. This is not a rhetorical question; the same pamphlet-forging doctor of my acquaintance [went on a medical mission to Haiti during the cholera epidemic there](#). It seems rather odd that someone who has never fought cholera, should be warning someone who has, that his philosophy prevents him from fighting cholera.

And indeed, this formulation is exactly backward. If everyone fixes drains instead of contemplating the infinite, we shall all die of cholera, if we do not die of boredom first. The heathens sacrificed to Apollo to avert plague; if we know now that we must fix drains instead, it is only through contemplating the infinite. Aristotle contemplated the infinite and founded Natural Philosophy; St. Benedict contemplated the infinite and preserved it. Descartes contemplated the infinite and derived the equations of optics; Hooke contemplated infinity and turned them into the microscope. And when all of these infinities had been completed – the Forms of Plato giving way to the orisons of monks, the cold hard lines of the natural philosophers terminating in the green hills of England to raise smokestacks out of empty fields – then and only then

did the heavens open, a choir of angels break into song, and a plumber fix a drain.

But he is not trapped in finitude, oh no, not he! What is a plumber but one who plumbs infinite depths? When one stoops to wade among the waste and filth to ensure the health of his fellow men, does he not take on a aspect beyond the finite, a hint of another One who descended into the dirt and grime of the world so that mankind might live? When one says that there shall certainly never be thinking-machines, because they remind him too much of God, let that man open his eyes until he is reminded of God by a plumber, or a symphony, or a dreary Sunday afternoon. Let him see God everywhere he looks, and then ask himself whether the world is truly built so that grand things can never come to pass. Mr. Butler's thinking-machines will come to pass not because they are extraordinary, but precisely because they are ordinary, in a world where extraordinary things are the only constant of everyday life.

*[1: EDIT 4/2: Mr. Ceglowski wants to [clarify](#) that he does in fact give to charity]*

# The GATTACA Trilogy

*[Few people realize that the 1997 cult hit GATTACA was actually just the first film in a three-movie trilogy. The final two movies, directed by the legendary Moira LeQuivalence, were flops which only stayed in theaters a few weeks and have since become almost impossible to find. In the interest of making them available to the general public, I've written summaries of some key scenes below. Thanks to user [Begferdeth](#) from the subreddit for the idea.]*

## GATTACA II: EPI-GATTACA

"Congratulations, Vincent", said the supervisor, eyes never looking up from his clipboard. "You passed them all. The orbital mechanics test. The flight simulator. All the fitness tests. More than passed. Some of the highest scores we've ever seen, frankly. You're going to be an astronaut."

Vincent's heart leapt in his chest.

"Pending, of course, the results of the final test. But this will be easy. I'm sure a fine specimen like you will have no trouble."

"The...the final test, sir?"

"Well, you know how things are. We want to make sure we get only the healthiest, most on-point individuals for our program. We used to do genetic testing, make sure that people's DNA was pre-selected for success. But after the incident with the Gattaca Corporation and that movie they made about the whole thing, public opinion just wasn't on board, and Congress nixed the whole enterprise. Things were really touch-and-go for a while, but then we came up with a suitably non-invasive replacement. Epigenetics!"

"Epi...genetics?" asked Vincent. He hoped he wasn't sounding too implausibly naive – he had, after all, just aced a whole battery of science tests. But surely there were some brilliant astronomers who didn't know anything about biology. He would pretend to be one of those.

The supervisor raised an eyebrow, but he went on. "Yes, epigenetics. According to studies, stressful experiences – anything from starvation

to social marginalization – change the methylation pattern of your genes. And not just your genes. Some people say that these methylation patterns can transfer to your children, and your children’s children, and so on, setting them back in life before they’re even born. Of course, it would be illegal for us to take a sample and check your methylation directly – but who needs that! In this day and age, everybody’s left a trail online. We can just check your ancestors’ life experiences directly, and come up with a projection of your methylation profile good enough to predict everything from whether you’ll have a heart attack to whether you’ll choke under pressure at a crucial moment. I’ll just need to see your genealogy, so we can run it through this computer here... you did bring it like we asked you, right? Of course you did! A superior individual like you, probably no major family traumas going back five, six generations – I bet you’ve got it all ready for me.”

Vincent reached into his briefcase, took out a slim blue binder. *Here goes nothing*, he thought.

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Two weeks earlier, he had thrown a wad of cash down on a granite table in a downtown apartment.

The man across from him leaned forward in his wheelchair, extended a trembling arm to slowly take the cash.

“You’re, uh, sure you want to do this?” asked Vincent, suddenly feeling a pang of conscience.

“Yes,” rasped Jerome. “You’re young. You still have your whole life ahead of you. You can still make something of yourself. Me, I’m done.”

“Look,” said Vincent, despite his better judgment, “just because you’re partly paralyzed doesn’t mean you can’t...do anything, really. Write a book. Travel the world.”

“You want to know how this happened?” Jerome asked. “I did it to myself. I used to be the best swimmer in the state, maybe in the country. I was going to the Olympics. With a spotless family history like mine, there were no limits. Then it happened. I had a fluke defeat. Lost the Olympics qualifier by a hairbreadth to a guy I’d beaten twenty times before. After that, why go on?”

“But...couldn’t you have just tried again four years later?”



"You still don't get it. It wasn't the loss. That loss *stressed me out*, Vincent. It made me *feel bad about myself*. I experienced *lowering of my social status*. With my methylation profile that screwed, it wasn't just my own body I had ruined. It was my future children too. How was I ever going to marry when I would have to look my wife in the eyes and tell her our kids would be epigenetically tainted forever? So I did the only thing I could. I threw myself in front of a car. Couldn't even kill myself properly, that's what happens when your methylation profile is ruined. So here I am."

"I'm so sorry," said Vincent, who was starting to regret ever having come. "We can help you. We can find some way to..."

"No," said Jerome, and he put the cash in his pocket. "What's done is done." He took a slim blue binder, slid it over the table to Vincent. "My genealogy. Absolutely perfect. Not a single microaggression against any of my ancestors since the Mayflower."

Vincent considered saying something, but finally just nodded. "I won't let you down. I'll use the gift you've given me in a way that would make you proud."

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He'd been so close. And now, this...whatever it was.

"It's not a problem with *you*," said the supervisor, though he looked haggard and did not exactly inspire confidence. "It's just...there's been an incident. We're interviewing everybody."

It was two days before launch. Everything had been set up. Now, as the supervisor ushered him into a sterile-looking interview room, he could already imagine the headlines. MAN BUYS FALSIFIED GENEALOGY, TRIES TO HIDE EPIGENETIC INFERIORITY. Or, FRAUD DECEIVES EPIGATTACA CORPORATION, MISSION CALLED OFF.

He was so busy generating worst-case scenarios that he didn't even notice the identity of the detective seated across from him until the door had closed and they were alone together.

"Anton?"

"Vincent?"

"Um...yeah..." was the best Vincent could think of to say to his older

brother.

They'd been in touch, sure. But Vincent had thought it prudent not to mention his exact job description, lest his brother start asking the wrong questions. He'd just said he worked for the Epigattaca corporation, letting Anton infer that he was sweeping floors or validating parking tickets or something else suitable to someone with his inadequate histone pattern. Finally he put himself together and spoke.

"What are you doing here?"

"There's been a death. One of the executives. Foul play suspected. I'm a detective, so..."

Then it had nothing to do with him. Or, at least, it hadn't. Now...

"Okay, Anton. Before you ask, yeah. I admit it. I faked my epigenome. There's a black market in genealogies. I found a guy willing to sell his identity. I saved up, bought it from him, gave it to the suits here. They think I haven't had a microaggression in my family line since the Mayflower. And they're going to do it. They're going to let me go to space."

"But why, Vincent? You were always such a good kid!"

"Of *course* you wouldn't understand," said Vincent.

It was true. Anton was five years older. He'd been born perfect, the product of the latest eu-epigenics program. Female infants with good epigenes were sent to live a sheltered existence in Denmark, the most equitable country in the world, and kept drugged on heroic doses of beta-blockers to prevent them from feeling any trauma or anxiety. They were raised in special houses by caretakers who denied them nothing, then sent to special schools where it was impossible to fail or feel inadequate. Then, when they reached puberty, they were artificially fertilized – no way the program was going to let them deal with something as stressful as sexual relationships – until they pumped out five or ten kids each. The most innocent were brought back to the shelters to restart the cycle.

It had all gone so well with Anton. But a year after he was born, everything had changed. One of the nurses had gotten sick, and an untrained nurse was brought in to cover. She had told Anton's mother

that she was looking “a little chubby”. Faced with this sudden awareness of patriarchal beauty standards and devaluing from a human being to a sex object, her histones had wilted instantly, her precious DNA inundated with methyl groups. When the scientists found out, they discharged her from the breeding program, she married a similarly damaged man, and the result, a few years later, had been Vincent.

“You’re right,” said Anton. “I can never understand what you go through. But I’m going to clear you. Right now. No conditions.”

Vincent could barely believe he’d heard correctly. “What?”

“It’s...my son. Your nephew. I never told you this, but a few years ago, he broke his leg biking. We got it treated by a black-market doctor, covered it up, no trace of it in any of the records, but – I can’t help worry about him. He remembers what happened. He’s going to need role models to look up to when he grows older, people who overcame epigenetic determinism and succeeded despite the changes our experiences impose on our DNA. He’s going to need someone like you. And besides, we’re brothers. I’ve already figured out who committed the murder – it was another executive whose department would profit by delaying the launch. I’m going to report that you’re innocent. And I’m also going to report that I didn’t discover anything else of note about you. Nothing that should delay this week’s launch.”

“You...you’d really do that for me?”

“Good luck in space, bro.”

Vincent walked out of the office in a daze. By the time he reached his desk, the email was already on the screen “Detective has said you’re good to go – launch is still on for Wednesday”. He read it three times, lost in thought.

He had always wanted to be an astronaut. Now he realized why – it was to escape his own epigenome. More than that – it was to escape a world that held epigenetics in such high regard that his epigenome mattered. He would still go to space. He would do it for Anton’s son, and for all the other individuals with a history of personal or family trauma. But he no longer felt like there was nothing for him on Earth. There were people who would judge him as a full human being, not just a methylation pattern shaped by familial disadvantage. And someday – he vowed – everyone would be able to say the same.

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### GATTACA III: EDU-GATTACA

"Congratulations, Vincent", said the supervisor, eyes never looking up from his clipboard. "You passed them all. The astrogation test. The crisis simulation. All the physicals and health panels. More than passed. Some of the highest scores we've ever seen, frankly. You're going to be an astronaut..."

Vincent broke out into a giant smile.

"...pending, of course, the results of the final test. But this will be easy. I'm sure a fine specimen like you will have no trouble."

"The...the final test, sir?"

"Well, you know how things are. We want to make sure we get only the strongest, most intelligent individuals for our program. We used to do genetic testing, make sure that people's DNA was pre-selected for success. But after the incident with the Gattaca Corporation and that movie they made about the whole thing, public opinion just wasn't on board, and Congress nixed the whole enterprise. Then we tried epigenetics, but it turned out they made a movie about that one too. Really, our luck in all of this has been terrible. But this time, we've really got it! This time, we know how to identify truly superior human beings who deserve to be astronauts, no creepy biology involved. We're going to base our decision on...what institution you spent four years in during your teens and early twenties!"

"Oh, *come on*," said Vincent. "Can't you just give up already and judge people on their merit?"

The supervisor pounded the desk. "Never! So-called meritocracy is a sham [designed to justify inequality](#). No, we've made our choice, and we're going to judge you by which university accepted you at age 17 based on a combination of illegibly-inflated grades, recommendations by people who barely knew you, and how much money your parents were willing to donate. You can complain all you want, but that's just how we roll, here at the..." He pointed out the window, to the gleaming sign outside "...at the PhDMSMABSBA corporation."

"How do you even expect people to pronounce that?" asked Vincent.

"Irrelevant! Now tell us what college you went to, so we can figure out

what Greek letter to assign you on your application.”

“Greek letter?”

“Just an internal company code we use. We got tired of saying ‘top-tier institution’, ‘second-tier institution’, and so on, so now you’re Alphas, Betas, Gammas, Deltas, and Epsilons. The Alphas get positions like executive or astronaut. The Betas get positions in middle management. The Gammas and Deltas have jobs like clerks and call center reps. And the Epsilons do the really dirty work, the stuff nobody else will touch.”

“That’s terrible!” said Vincent.

“That’s what *everybody* does,” the supervisor corrected. “The only difference is we use Greek letters. Is your moral system so fragile that its results depend on whether you refer to something with Greek letters or not?”

“Wow,” said Vincent, “this conversation has taken a disturbing turn.”

“That’s right. So why don’t you just show us your college degree, and we can get your application going?”

Vincent reached into his briefcase, took out a slim red binder. *Here goes nothing*, he thought.



Two weeks earlier, he had thrown a wad of cash down on a marble table in a suburban apartment.

The man across from him leaned forward in his wheelchair, extended a trembling arm to slowly take the cash.

“You’re, uh, sure you want to do this?” asked Vincent, suddenly feeling a pang of conscience.

“Yes,” rasped Jerome. “You’re young. You still have your whole life ahead of you. You can still make something of yourself. Me, I’m done.”

“Look,” said Vincent, despite his better judgment, “just because you’ve got some kind of condition doesn’t mean you can’t...do anything, really. Write a book. Travel the world.”

“You want to know how this happened?” Jerome asked. “I did it to myself. I used to be the best football player in the state. Maybe the

country. Got accepted to Harvard on a football scholarship. Then I learned that college football causes so many concussions that it increases your risk of chronic traumatic encephalopathy. I didn't know what to do. Stick around, and I risked degenerating into the condition you see me in now. Leave, and I'd lose my scholarship, never get a degree, and have to go to community college. I'd never be anything higher than a Delta."

"A Delta?"

"Some new corporate jargon people are using," Jerome shrugged. "So I kept it up and got my degree. Now I can barely walk, and half the time I can't remember my own name. So here I am."

"I'm so sorry," said Vincent, who was starting to regret ever having come. "We can help you. We can find some way to..."

"No," said Jerome, and he put the cash in his pocket. "What's done is done." He took a slim red binder, slid it over the table to Vincent. "My Harvard degree. Top-tier institution, absolutely Alpha quality. With this, every single door in the world will be open to you."

Vincent considered saying something, but finally just nodded. "I won't let you down. I'll use the gift you've given me in a way that would make you proud."

---

He'd been so close. And now, this...whatever it was.

"It's not a problem with *you*," said the supervisor, though he looked haggard and did not exactly inspire confidence. "It's just...there's been an incident. We're interviewing everybody."

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"What are you doing here?"

"There's been a death. One of the executives. Foul play suspected. I'm a detective, so..."

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"Okay, Anton. Before you ask, yeah. I admit it. I faked my degree. I found a guy willing to sell his identity. I saved up, bought it from him, gave it to the suits here. They think I'm a Harvard alum. And they're going to do it. They're going to let me go to space."

"But why, Vincent? You were always such a good kid!"

"Of *course* you wouldn't understand," said Vincent.

It was true. Vincent had spent years working ten-hour days after school teaching the saxophone to underprivileged children to build his resume, but the Admissions Departments hadn't been impressed. Anton had learned from his mistake, hired an admissions coach, and with her guidance had founded the country's first Klingon-language suicide prevention hotline; the Ivy League had eaten it up. Vincent had ended up with a degree from a Gamma-level state institution; Anton had gone to Yale.

"You're right," said Anton. "I can never understand what you go through. But I'm going to clear you. Right now. No conditions."

Vincent could barely believe he'd heard correctly. "What?"

"It's...my son. Your nephew. You remember how he started a synchronized underwater molecular gastronomy team at his high school? Apparently all the other kids have been going to the Third

World and starting synchronized underwater molecular gastronomy teams *there*, and we never knew about it. Now there's no way he's going to be competitive. I can't help worry about him. He's going to need role models to look up to when he grows older, people who overcame going to a low-tier college and succeeded anyway. He's going to need someone like you. And besides, we're brothers. I've already figured out who committed the murder – it was another executive whose department would profit by delaying the launch. I'm going to report that you're innocent. And I'm also going to report that I didn't discover anything else of note about you. Nothing that should delay this week's launch."

"You...you'd really do that for me?"

"Good luck in space, bro."

Vincent walked out of the office in a daze. By the time he reached his desk, the email was already on the screen "Detective has said you're good to go – launch is still on for Wednesday". He read it three times, lost in thought.

He had always wanted to be an astronaut. Now he realized why – it was to escape his own low-tier college degree. More than that – it was to escape a world that held degrees in such high regard that the college he went to mattered. He would still go to space. He would do it for Anton's son, and for all the other individuals with a subpar secondary education. But he no longer felt like there was nothing for him on Earth. There were people who would judge him as a full human being, not just a set of letters after his name. And someday – he vowed – [everyone would be able to say the same](#).



## Biodjinnetics

"In exchange for freeing me from this lamp, you may ask me one question," said the genie.

"Not three?" I protested.

"Just one," said the genie.

"What is the cure for cancer?" I asked.

"A compound called oxymurcuriphine, found in the venom of the two-toed toad of Toronto," said the genie. "Cures 100% of all cancers."

"Huh," I said. "Thank you. And here I was worrying you were one of those evil genies who would satisfy the letter of the wish while actually being totally useless."

"Me?" said the genie, as he faded from view. "Never. That molecule is the genuine article and I wish you only the best of luck getting the fifty million dollars or so needed to push it through years of FDA clinical trials."

This entry was posted in [Uncategorized](#) and tagged [fiction](#) on [June 12, 2013](#) by [Scott Alexander](#).

# Everything Not Obligatory Is Forbidden

*[seen on the New York Times' editorial page, February 6 2065, written by one "Dr. Mora LeQuivalence"]*

It's 2065. Not giving your kids super-enhancement designer baby gene therapy isn't your "choice". If you don't super-enhance your kids, you are a bad parent. It's that simple.

Harsh? Maybe. But consider the latest survey, which found that about five percent of parents fail to super-enhance their children by the time they enter kindergarten. These aren't poor people who can't afford super-enhancement designer baby gene therapy. These are mostly rich, highly educated individuals in places like California and Oregon who say they think it's more "natural" to leave their children defenseless against various undesirable traits. "I just don't think it's right to inject retroviral vectors into my baby's body to change her from the way God made her," one Portland woman was quoted by the *Times* as saying earlier this week. Other parents referred to a 2048 study saying the retroviral injections, usually given in the first year of life, increase the risk of various childhood cancers – a study that has since been soundly discredited.

These parents will inevitably bring up notions of "personal freedom". But even if we accept the dubious premise that parents have a right to sacrifice their children's health, refusing super-enhancement designer baby gene therapy isn't just a personal choice. It's a public health issue that affects everybody in society.

In 2064 there were almost 200 murders nationwide, up from a low of fewer than 50 in 2060. Why is this killer, long believed to be almost eradicated, making a comeback? Criminologists are unanimous in laying the blame on unenhanced children, who lack the improved impulse-control and anger-management genes included in every modern super-enhancement designer baby gene therapy package.

There were over a dozen fatal car accidents on our nation's roads last year. The problem is drivers who weren't enhanced as children and who lack the super-reflexes the rest of us take for granted. This is

compounded when they drink before getting on the road, since unenhanced people become impaired by alcohol and their already inferior reflexes deteriorate further. Since the promise of self-driving cars continues to be tied up in regulatory hassles, we can expect many more such needless deaths as long as irresponsible parents continue to consider science “optional”.

And finally, there was a recent outbreak of measles at Disneyland Europa – even though we thought this disease had been eradicated decades ago. Scientists traced the problem to unvaccinated tourists. They further found that all of these unvaccinated individuals were unenhanced. Lacking the cognitive optimization that would help them understand psychoneuroimmunology on an intuitive level, they were easy prey for discredited ideas like “vaccines cause autism”.

So no, super-enhancing your kids isn’t a “personal choice”. It’s your basic duty as a parent and a responsible human being. People in places like India and Neo-Songhai and Venus which suffer from crime and disease make great personal sacrifices to get their children to gene therapy clinics and give them the super-enhancement designer baby gene injection that ensures them a better life. And you start off in a privileged position in America, benefitting from the superenhancement of millions of your fellow citizens, and you think you can just say “No thanks”?

So I don’t want to hear another word from the “but my freedom!” crowd. Unenhanced kids shouldn’t be allowed in school. They shouldn’t be allowed to drive. They shouldn’t be allowed in public places where they can cause problems. And parents who refuse to enhance their children should be put in jail, the same as anyone else whose actions lead to death and suffering. Because not super-enhancing your kids isn’t a “choice”. It’s child abuse.

*Mora LeQuivalence is an Assistant Professor of Bioethics at Facebook University. Her latest book, “A Flight Too Far”, argues that the recent Danish experiment with giving children wings is a disgusting offense against the natural order and should be banned worldwide and prosecuted in the International Criminal Court. It is available for 0.02B on Amazon.com*

Related: [Transhumanism Is Simplified Humanism](#), [Alicorn’s Alternate Universe Social Justice Series](#)

## X. Puns

# Fifty Swifties

[see: [Wikipedia: Tom Swifties](#) and [Tom Swifties Written By An Author Willing To Go To Any Lengths To Make A Tom Swifty Thus Resulting In Constructions That Often Require More Work For Readers Than For The Author](#). All of the below are AFAIK original to SSC.]

"Pennies look really different under a microscope," Tom said magnificently.

"A griffin is a kind of flying lion," Tom said uproariously

"Our flight path has brought us directly above Yellowstone National Park" Tom said overbearingly.

"Obama absolutely buried Romney in the election!" Tom said intermittently.

"I grew two inches last year!" Tom said ambiguously

"I want to trick one or another rich woman into marrying me so I can steal her fortune," Tom said consummately

"The auction is now open," Tom said forbiddingly.

"I deny everything!" Tom said all-knowingly.

"The telegraph network was over capacity, so you'll have to send your message again" Tom said remorsefully.

"Ender, the Formics have dug themselves into fortifications!" Tom observed trenchantly

"I'm going to miss work for the next few days, I'm stuck doing my civic duty at the courthouse," Tom said injuriously

"The Zoroastrians seem to control a disproportionate amount of India's wealth," Tom said parsimoniously

"Nana seems to be developing Tourette syndrome," Tom said grammatically.

"This prison will be the perfect place for my unethical Human

Centipede style experiments," Tom said confusingly.

"The bounty hunter was my favorite character in Star Wars," Tom said prophetically.

"Brutha, the Great God is not just a turtle, but also within the hearts of all mankind," Tom said ominously.

"Chelsea Manning mailed me one of her teeth," Tom said transcendently.

"I got a job producing another season of Lassie," Tom said moronically.

"I was out at the brothel until after midnight," Tom said scintillatingly.

"I'm sorry, but the lady is spoken for," Tom said mistakenly.

"I'm going to an all-you-can-eat restaurant tonight," Tom said forgetfully.

"The girl from my blind date last night was a 4/10," Tom said metaphorically.

"The medication cured my autism but also made me gain weight," Tom said fatalistically.

"I used to have to walk everywhere," Tom said precariously.

"Hades seems like a pretty credible guy," Tom said disbelievingly.

"That commercial really helped spread awareness of the risks of intelligence explosions," Tom said admiringly

"To think this entire tree grew from a single nut in just a few years," Tom said exceedingly quickly

"I got selected for the role of Juan Peron in an Andrew Lloyd Webber musical!" Tom said inevitably

"After playing Juan Peron, no one ever cast me in a play again," Tom said exactly

"SAT scores should be given more weight in college admissions," Tom protested.

"I will start a campaign to convert [@aristosophy](#) and [@donovanable](#) to

Catharism," Tom would prognosticate.

"The Notorious B.I.G.'s death was a predictable result of his career," Tom would rhapsodize.

"The zoo's exhibit on African wildlife was a big disappointment," Tom said hypocritically

"It's the Leviathan!" Tom said superficially

"I'm afraid you've got an atrial septal defect," Tom said wholeheartedly

"I first met my wife in the restroom at a bar," Tom said accommodatingly

"I picked up a nice new casual shirt," Tom said apologetically

"The cat-goddess is a threat to the American way of life," Tom said bombastically.

"I can't figure out how to stop our boat!" Tom said cantankerously

"Satan is the original source of evil," Tom said urbanely

"I can slay the Jabberwock," Tom said demonstrably

"I realize I missed the meeting by two whole hours," Tom said isolatedly

"Kosher kitchens need separate plates for milk and meat," Tom said judiciously

"Bill Clinton got a divorce!" Tom said exhilarated

"Lower-ranked demons can kiss my ass," Tom said imprudently

"Help, I got stuck inside this cattle pen," Tom said inoffensively

"My throne sits on the floor," Tom said lackadaisically

"It costs one thirty cent stamp to send one letter," Tom said permissively

"I forbid you to take the ladder to the topmost room of my house," Tom said anti-climatically.

“Ho ho fucking ho!” customarily.



## Fifty (More) Swifties

[see: [Wikipedia: Tom Swifties](#), [Tom Swifties Written By An Author Willing To Go To Any Lengths To Make A Tom Swifty Thus Resulting In Constructions That Often Require More Work For Readers Than For The Author](#), and [Fifty Swifties](#). Previously on Twitter [here](#).]

"This sandwich is gross," Tom said deliberately.

"My Frisbee is stuck on the roof of that circus building," Tom said discontently.

"I hate Google," Tom said probingly.

"Godzilla swallowed a United Nations bunker, but then he threw it back up," Tom said unfortunately.

"I think Objectivism is stupid," Tom said randomly.

"It's so exciting to visit Leonardo's birthplace," Tom said invincibly.

"Persephone must marry Hades and live with him half the year," Zeus said despairingly.

"I now control majority shares of CBS, FOX, and the New York Times," Tom said immediately.

"Enemy fighters just scored a direct hit on my plane! I'm going down!" Tom said knowingly.

"We were badly injured in the struggle with the Orcs, but luckily the Ents' medicine restored our health," Tom said tremendously.

"I took Gollum's precious trinket in a riddle contest," Tom said wonderingly.

"I've lost this Maxis game ten times in a row on the easiest difficulty setting," Tom said sympathetically.

"I can commit adultery three more times and still be just under the threshold for damnation," Tom said syntactically.

"O Lord, why are you punishing me like this?" Jonah said inefficiently.

"Look! Nicaraguan guerillas!" Tom contraindicated.

"I forgot to give up meat before Easter, so I'll do it before Christmas," Tom said redolently.

"I'll see you in court!" Tom said supersonically.

"When I speak Japanese, I think of myself as a young, cute person," Tom said mechanically.

"Iä Cthulhu! Iä Azathoth!" the man called maniacally.

"Stay away from Stalin," Tom commissioned.

"It's one of those old phones, from before wireless and touch-tone," Tom said cordially.

"She'll have sex with me for \$20 any time I phone her up," Tom said horrifically.

"I read the Cliff Notes to Dante's Inferno," Tom said synergistically.

"I'm going to recover the lunar lander from the surface of the moon and make a fortune," Tom said apologetically.

"I covered myself in a layer of gold," Tom said amblingly.

"I covered myself in a layer of pyrite," Tom said shamblingly.

"I covered myself in the Golden Fleece of Colchis," Tom said ramblingly.

"The poverty rate has increased 10% recently, but I don't have any kind of visual presentation of its course," Tom said pornographically.

"We should perform an autopsy," Tom said wide-eyed.

"That tree is naked under its bark!" Tom said prudently.

"I can afford either an iPhone or a yacht, but not both," Tom said on self-ownership.

"The guy who was installing the granite tops in my kitchen had a cardiac arrest," Tom countermanded.

"We can stop progress by attacking a conference on new ideas with a many-headed monster," Tom said well-hydrated.

"You're a bell," Tom told me.

"The wages of sin is death," Tom said diurnally.

"Abortion is murder," Tom said prolifically.

"Can do!" Tom said candidly.

"I have a present for you, Madame," Vincent said endearingly.

"Arrrrrrr," Tom aspirated.

"My lower social status as part of the new rich prevents me from winning my true love," Gatsby said lackadaisically.

"The Minoans sucked," Tom said discretely.

"Well, if you think the Minoans did a bad job with their empire, you should try ruling them yourself," his teacher said, giving him a B-.

"Ha ha, just kidding," Tom ingested.

"Sheep can't have sex changes!" Tom said, heedless of the ramifications.

"I wrote a synoptic Gospel," Tom remarked.

"People used to lay wires across the country for the telegraph system, an early precursor to the telephone," Tom said according to protocol.

"My laptop came bundled with malware that causes a serious security flaw," Tom said superficially.

"We need artillery cover!" Tom said canonically.

"Someday my family will rule the world," Tom said clandestinely.

"The West's treatment of Palestine is an example of Orientalism," Tom said.

## Swifties 3: The Race Is Not To The Swiftly

[see: [Wikipedia: Tom Swifties](#), [Tom Swifties Written By An Author Willing To Go To Any Lengths To Make A Tom Swifty Thus Resulting In Constructions That Often Require More Work For Readers Than For The Author](#), [Fifty Swifties](#), and [Fifty More Swifties](#). Previously on Twitter [here](#). Some of these are from the comments to the last post.]

1. "She eventually absorbed so much radiation that her bottom half mutated into a fish's tail," Tom said mercurially.
2. "Stay away from nuns," Tom said conventionally.
3. "Back during Late Antiquity, everyone lived in fear of Attila and his hordes," Tom said a hundred times.
4. "It said he was eaten by a bare, so either that's a typo or he was devoured by the act of exposing something," Tom said verbatim.
5. "You'll have to stand," Tom said deceitfully.
6. "Little plays are such a useful way to teach children good behavior," Tom said schizoaffectively.
7. "..." Tom said immutably.
8. "I'm an only child," Tom said in unison.
9. "Look, a Confederate general!" Tom said icily.
10. "Why yes ma'am, I AM the Tom from those Twitter one-liners you've heard," Tom said pungently.
11. "I'm not going to make a deathbed conversion," Tom said diagnostically.
12. "I'm using behavioral conditioning to train lions to keep quiet," Tom said to Rorschach.
13. "I used to be a priest, but I was defrocked for an improper relationship on the job," Tom said inundated at work.

14. "I'm here helping people displaced by the earthquake," Tom said with intensity.
15. "We've been pinned underneath fallen logs," Tom said treasonously.
16. "I went rock-climbing with my girlfriend," Tom updated.
17. "The defibrillator worked!" Tom said, repulsed.
18. "My karate instructor died," Tom said, desensitized.
19. "Godzilla, I can't believe you devoured part of South Africa," Tom transvaluated.
20. "I was running late today, so I had lunch in my cubicle," Tom incubated.
21. "But they dug too greedily, and too deep," Tom undermined.
22. "The new environmental regulations will make mineral extraction less profitable," Tom said, determined.
23. "He's sleeping six feet under now," Tom said depressed.
24. "I guess I lost the genetic lottery," Tom said, drawing a portrait.
25. "SKULLS FOR THE SKULL THRONE!" Tom said, skulkingly.
26. "I've gotten 0.028 countries to join together in a political and economic union," Tom said in his milieu.
27. "For here I am, sitting in a tin can, re-entering Earth's atmosphere," Major Tom said incandescently.
28. "The mailman just left my mail on the dirty ground?! Really?!" Tom said postindustrially.
29. "I'm writing a book based on 'The Tell-Tale Heart', except instead of a horror story it's a comedy," Tom said politely.
30. "Is the guy in that coffin Dracula, or just an ordinary corpse?" Tom countermanded.
31. "I think China has enough foreign exchange reserves," Tom said for example.

32. "Every time the server goes down, I have a Norse god zap it with lightning to get it back up," Tom said with authority.
33. "Help, I've been buried alive!" Tom engraved.
34. "I'll never be an A-list celebrity" Tom berated. ([source](#))
35. "If you were any good you'd have the Ambassador's job," Tom said disconsolately. ([source](#))
36. "Germany should exit the Eurozone" Tom remarked. ([source](#))
37. "Maybe he was knighted for his contributions to Austrian economics," Tom surmises.
38. "We should give the Western US back to the Native Americans," Tom said unsettlingly.
39. "I'm not going to give that jerk Procrustes the satisfaction," Tom said self-defeatingly. ([source](#))
40. "This new-ideas conference has sure gotten effeminately quaint." Tom tweeted. ([source](#))
41. "Everyone's date of birth is in 2007," Tom said alternatively. ([source](#))
42. "Weasley for president!" Tom said electronically. ([source](#))
43. "Let the other guy take the paddle," Tom said heroically. ([source](#))
44. "Let's make a deal – I'll stop doing sit-ups if you do," Tom said abstrusely. ([source](#))
45. "My former wife mentioned me in her newest paper," Tom said excitedly. ([source](#))
46. "How Can Mirrors Be Real If Our Eyes Aren't Real?", Tom asked unreliably. ([source](#))
47. "Your hair looks terrible," Tom said distressingly. ([source](#))
48. "I've stolen the treasures of the Shrine of the Bab," Tom said, high-falutin'.
49. "We should go to the petting zoo, I hear they have cattle now," Tom

said, compatible with me.

50. "After Kant's death, he left his old machine gun to forces plotting a military coup," Tom said, willing that his maxim could make a general rule.

# The Proverbial Murder Mystery

I.

Chefs. Hundreds of them. Tall chefs, short chefs, black chefs, white chefs. I pushed forward through them, like an explorer hacking away at undergrowth. They muttered curses at me, but I was stronger than they were. I came to a door. I opened it. Sweet empty space. I shut the door behind me, sat down in the chair.

"Hello," I said. "Detective Paul Eastman, pleased to make your acquaintance."

"Doctor Zachary LaShay," said the man behind the desk. His little remaining hair was greying; his eyes showed hints of the intellect that had been buried beneath the dullness of an administrative career. "I hope you didn't have any trouble getting here. Did my secretary warn you about the chefs?"

"She did not," I said.

"Well, forewarned is forearmed," he answered, inanely and incongruously. "But I trust you got my message about the federal investigators?"

"Once a federal investigation has started, we'll retreat and let them take over. But two women died here. We can't just not investigate because you tell us you're trying to get the Feds involved."

"Yes, ah, of course. It's just that we're a sort of, ah, defense contractor. None of our projects are officially classified, yet, but we were hoping to get someone with a security clearance, in case this touched on sensitive areas."

"I won't pry further than I have to, but until someone from the government says something official, this is a matter for city police. Maybe you could start by telling me more about exactly what you do here."

"We're the United States' only proverb laboratory. Our mission is to stress-test the nation's proverbs. To provide rigorous backing for the good ones, and weed out the bad ones."



"I'd never even heard of your organization before today, I have to admit. And now that I'm here...it's huge! Who pays for all of this?"

"Everybody who uses proverbs," said the Doctor, "which is to say, everybody. Consider: he who hesitates is lost. But also: look before you leap. Suppose you're a business executive who spots a time-limited opportunity. What do you do? Hesitate? Or leap without looking? Eggheads devise all sorts of fancy rules about timing the market and relying on studies, but when push comes to shove most people are going to rely on the simple sayings they learned as a child. If you can keep your stock of proverbs more up-to-date than your competitor's, that gives you a big business advantage."

A smartly-dressed woman came in, handed Dr. LaShay a cup of boiling liquid. He put it to his lips, then spat. "This is terrible!" he said. "Try it!"

I had been expecting it to be tea, but it wasn't. I didn't know what it was. But it was terrible. Somehow too plain, too salty, and too bitter all at once. I gagged.

"That settles it!" said the Doctor. "Too many cooks really do spoil the broth. Tricia, tell the chefs they can all go home now."

"So that's what you were doing!" I said.

"Yes. Until now, too many cooks spoiling the broth had been at best an anecdote! A folk hypothesis! This month we've been working on broth with varying numbers of cooks. One, two, five, ten, a hundred. We've got a team of blinded taste testers in the basement who've been rating the results, and I personally check each sample to make sure I agree. This morning we hired every cook in the city – that's over five hundred cooks – to come here and make broth for us, just to make sure there isn't some kind of island of stability where broth starts getting better again once the number of cooks is high enough. Later this week we'll give the data over to our analysts, who'll develop a model that can use cook number to predict broth quality over a wide range of possible situations."

"And the military wants this sort of thing?"

"The military loves it! The average grunt is a high-school educated young man in his late teens or early twenties. You're not going to be teaching these people Clausewitz and von Moltke; it would be casting pearls before swine. When he's under fire and has to make a split-

second decision, he's going to rely on the heuristics he learned on his grandmother's knee. On proverbs. America's proverbs are a vital strategic asset, and the Pentagon appreciates that."

"I get how *too many cooks spoil the broth* might apply to something like an officer trying to figure out how many people to consult about a new strategy. But surely you can't test that heuristic just by experimenting with literal cooks making literal broth!"

"Mmmmmmm. Yes, you're referring to what we call Pragmatics. We certainly have a pragmatics team here, and they do good work. But the thing is, Officer, we're essentially a consulting firm. Consulting firms are there to give people justification for the things they want to do anyway. When some general is testifying before Congress, and he says he didn't consult someone-or-other because too many cooks spoil the broth, then Congress is going to want evidence that relying on sayings like this is best practice. If he just says "That's our heuristic, and we know it works", he'll look like a loose cannon. But if he can hold up a glossy five hundred page report we gave him, proving that broth really does get spoiled by too many cooks, he'll look like a responsible technocrat who did his due diligence. And yes, part of that report is a long philosophical discussion on pragmatics. But part of it is proving, once and for all, that too many cooks really do spoil the broth."

"I see," I said. "The two dead women. Were they involved in the broth project?"

"No. The first victim, Lisa Bird, she was our sysadmin. The second victim, Catherine Lee, took care of the animals."

"Animals?"

"We have several projects that require animals. You can obviously lead a horse to water, but can you make him drink? At first we would rent out horses from equestrian organizations for this kind of thing. But then the next month we would need another horse to see if you should shut the stable door after the horse has bolted. Then we'd need two more horses to see if you should change horses midstream. Finally the costs started adding up and we just got a couple of horses that we keep here at the Institute. They were actually a gift from a sister of one of our employees who used to have a farm. One of them we looked in the mouth; the other we didn't. We're still trying to figure out which way worked better."

"I see. The report I got said that the motive was romantic jealousy."

"Yes. Ms. Lee believed Ms. Bird was having an affair with her husband. Ms. Bird was known to come to work early on Fridays to do some extra work and prepare for the weekend off. Ms. Lee entered the office where Ms. Bird was working alone, murdered her, then committed suicide. I'm getting this from the emergency team that was here before you."

"All right. I'll need to see the crime scene."

"Certainly."

LaShay led me out of his office to an elevator, then hit the button for the tenth floor. We walked out into a clinically-clean hallway. I heard a commotion. "FUCK YOU!" someone was shouting. "DAMN YOU TO HELL, YOU INKY TENEBROUS MOTHERFUCKER!" I stepped forward to open the door and investigate, but the Doctor held me back.

"Don't worry about it," he said. "That's Room 27A. We're testing whether it's better to light a candle or curse the darkness. The candle is in Room 27B."

"You must have a lot of projects going on here."

"Oh yes. Over there is our insect unit. Can you catch more flies with honey or vinegar, can ants really move plants, that kind of thing. Our kitchen is to the right – the chefs were using it today, but it comes in handy all the time. Just don't go in there if you can't stand the heat. And down that corridor are our weather unit, our fire unit, and our water unit. And that's just the tip of the iceberg – " He pointed to a large room with a spike of ice poking through the floor. We continued on. "And over there is our forge. There are so many proverbs about metal that we hired our own team of blacksmiths. It was going great until they unionized, but now they always strike when the iron is hot."

The corridor opened into a vast auditorium. All around me, I saw knee-high marble buildings, gleaming palaces, and – was that the Colosseum? A man dressed in a gladiator costume was sitting behind a desk doubling as a terraced hill, frowning at a computer and occasionally typing something. "Our 1:100 scale model of Rome," said LaShay. "We figured if we couldn't build it in 0.24 hours or less, then Rome couldn't be built in a day. For some reason I always get lost and end up here. It's quite annoying."

We passed out of Rome into another corridor, where we finally came to a door marked "Information Technology".

"Ms. Bird's office," said LaShay, and I walked in.

I'm a homicide detective; I'm used to grisly murder scenes. This one still made me gasp. One victim – Ms. Bird, I supposed – was lying on the ground by the desk. It looked like her head had been bashed in by a blunt object. But there was more. Her mouth area was covered with blood, and I soon found her tongue had been cut out. And there was another bloody hole in her chest. The stomach and heart had been cut out too.

A few feet away, a second body dangled from a noose that had been tied to one of the rafters. Ms. Lee, I supposed. No mutilation on this one. Just a clean suicide, or at least that was what somebody had gone through a lot of trouble to make it look like.

Lying on the ground approximately between the two of them was a bloody knife. I knew from the previous report that the blood was Ms. Bird's, and the fingerprints on the handle were Ms. Lee's.

This did not seem like a Sherlock Holmes level mystery. Except: where were Bird's heart and tongue?

"I'm not sure," said LaShay, when I went outside and asked him the question. "I...haven't been in there since it happened. Not sure I could deal with the blood. One of Ms. Bird's coworkers had a question about the network, so she went in and saw...what you just saw. We called 911 in case either of them was still alive. The paramedics called the police who did a preliminary investigation of the scene. And then you showed up."

"I'll need to search the premises," I said. "What time did Bird come to work?"

"I understand she usually arrives around seven."

"And when does the office open?"

"Nine."

"So potentially Lee could have had two hours to hide the heart and tongue somewhere in this building before going back and hanging herself."

"Why would she have done that?"

"I don't know. Do you have a better idea for what happened to them?"

He shook his head.

"Good. Then I'll need to search the whole building. Is there anywhere I'll need any special keys or codes to enter?"

He gave me a golden key. "This opens any door," he said. "But don't go in the Red Zone. That's off-limits to everybody."

I shrugged. "Then it's exactly the sort of place somebody would hide something, isn't it? Why isn't anyone allowed in the Red Zone?"

"Radioactivity," he answered immediately. "We have a giant machine for testing all machine-related proverbs. It's...very impressive. Powers the whole building, runs the water and gas systems, even gives us satellite internet. We wanted it to be just a generic Machine, capital m, so it does a little of everything. But it's radioactive...not traditionally, the way you can detect with a Geiger counter. I don't understand the physics. But people tend to get very sick if they get too close to it."

Part of LaShay's description had stuck with me. "It provides the building with Internet? Lisa's a sysadmin. Did she ever have to work with the Machine?"

"No, that was all connected when the Machine was installed. She interfaces with it remotely, through her computer."

"And Catherine? Did her work with the animals ever bring her near the Machine?"

"Her office was very close to the Red Zone. Closer than any other office in the building, actually. But she never had any reason to enter the danger area."

"I'm going to need to see the Machine. Is there any way I can do so safely?"

"We have an observation deck. It's just above the Machine, on this floor. You can stare down at the Machine from the top."

"I'll need to go there." It was just a hunch, but I wasn't liking the sound of this Machine. And if you were going to hide body parts for some

reason, why not hide them in a restricted area where nobody ever went?"

LaShay took me down a series of turns and hallways. After a minute or two of walking...we were in the scale model of Rome again.

"Dammit!" said LaShay. "Every time!"

Another few turns and hallways, and we finally came to a steel-reinforced door. "DANGER" it said. "OBSERVATION AREA. CHILDREN AND PREGNANT WOMEN NOT ALLOWED. PLEASE DO NOT SPEND MORE THAN FIVE MINUTES IN THE OBSERVATION AREA OVER A ONE WEEK PERIOD."

I used my golden key to unlock the door. We went in.

We were on iron scaffolding. Below us whirled something amazing. It was like every children's-book description of a machine put together and brought to life, a huge assembly of gears and pistons and bubbling glowing bright-colored chemicals coursing through glass pipes. Beside me was a control panel, currently set at "NORMAL". The other options ranged from "OFF" to "MAXIMUM" to "ULTRAMAXIMUM" to "SUPRAULTRAMAXIMUM".

"It's beautiful," I told the Doctor.

"Don't touch that," he told me, glancing nervously at the control panel.

The machine was nine stories high, filling the entire center of the laboratory. In the center, an enormous agglomeration of steampunk-looking gadgetry formed a hollow cylinder, spinning faster than I could follow. I leaned out over the edge of the scaffold, over the pit formed by the cylinder's center.

"You really don't want to do that," LaShay told me. I could see what he meant. It was easy to imagine falling right through the hole in the spinning cylinder, down to the ground ten stories below. I had a strange feeling that gravity would be the least of my problems if that happened, that anything that went through that spinning apparatus would have a very bad time long before it hit the ground. And...

"What's that?" I asked.

At the bottom of the spinning cylinder, incongruously, was a building I could only describe as a small shrine. It had a little golden dome on the

top, and...actually, it was exactly a shrine. There was a Star of David atop the dome.

"That," said LaShay. His voice changed, became heavier. "I started this laboratory with my colleague, Dr. Rissum. He...he committed suicide nine years ago by jumping into the Machine from this very spot. That's his memorial."

"My God! You're telling me there was another suicide in this lab?"

"Nine years ago. The police investigated. There was nothing suspicious. His wife had just left him and taken the children. It was very tragic, but no foul play was suspected."

"Still. Another suicide."

"We need to get out of here," said LaShay. "Being this close to the Machine really isn't good for you."

I looked around the observation deck and at the floor ten stories below. There were no signs of blood, a tongue, or a heart. "All right," I said, because the Machine was starting make me nervous too.

I spent the rest of the morning searching the rest of the laboratory, free of LaShay's discomfiting presence. It was an exhausting task, not least because I always ended up in the Rome model even when I thought I was in a totally different part of the building. But eventually I found two things that caught my interest.

First, Lisa Bird's chair. I had gone back into the room with the bodies to look for other clues. The desk was normal enough. The computer was a normal Apple MacBook. But I noticed Lisa's chair was made out of human hands. This was confusing enough that I called the Doctor back, who of course had an explanation.

"They're not real hands," he said. "Most of the staff have chairs like that. We were testing whether many hands make light work, so we had everyone working for the lab sit on those."

"It's pretty gruesome," I said.

"We originally tried putting those statues of the Buddhist god with the thousands of hands all around the office," LaShay admitted. "But people complained that the hands were whispering demonic messages to them. Finally someone in the Religion Department reminded me that

idol hands are the Devil's plaything."

"Okay," I said, and dismissed LaShay again, with some relief. He told me he would be working over the weekend, and said I could call him if anything came up. I hoped I wouldn't have to. Something was weird about that guy, no doubt.

The second thing I found was Lisa Bird's tongue and stomach. It was in the third drawer of Catherine Lee's desk. The woman had murdered her coworker, cut out her tongue and stomach, put it in the third drawer of her desk, gone back up to the murder scene, and committed suicide.

Or, more accurately, this was a subset of what she had done, because I still couldn't find Lisa's heart. I searched Catherine's desk inside and out. All I could find were a couple of paperweights made of various gemstones. I noticed they were about the right size and shape to have made the dent in Lisa Bird's head, but none of them had any bloodstains on them or anything else suspicious. There were no severed organs.

I was missing something. But what?

II.

"You're the detective on the Bird case?"

"Mmmrrrgyeah," I answered groggily.

"Come to the station," said Officer Karp. "The murderer's body is missing."

It was 8 AM on Saturday. I had visited the Proverb Laboratory Friday, told the station that the scene had been fully examined and they could take the bodies away, then gone home and slept. The station had sent a team to recover the bodies and bring them to the morgue. The next morning, one of the morgue staff had noticed that although Lisa Bird was still there, Lee's body was missing.

Still only half-awake, I went to the morgue and examined the scene. The body bag was still in place. It had been expertly opened up and the body had been removed. There were no fingerprints. Karp was seething that a theft had been committed in the police station itself. He demanded we do something. I suggested we go to Catherine Lee's house, interview her husband, see what he could tell us. That was how I



ended up spending my Saturday morning at the weirdest house I had ever seen.

It was some kind of modernist experimental dwelling or something. The whole place was made out of windows. Not one-way windows either. You could see everything that happened in it. Not (I thought to myself) the sort of place a criminal would find very convenient.

"It was Cat's idea," her husband told us, when we knocked on the door and introduced ourselves. "She was always so paranoid that I was having an affair. Well, some weird architect made this house and then put it on the market – obviously nobody wanted it, so the price was right. Cat thought it was perfect. I couldn't hide anything here. You've got to believe me, officers. I never had an affair with anybody. She was paranoid. But not violent. I know they say she killed that woman. But she would never do something like that. She was framed. I'm sure of it."

"Who would do such a thing?"

"She talked about office politics all the time. I know things I'm not supposed to know. The Proverb Laboratory, they talk about selling their work to corporations, but the US military is the big sponsor. A lot of their best work is hush-hush."

"I'm aware," I said.

"Well, she would tell me all these rumors. Apparently the British hate the Proverb Laboratory. Before LaShay and Rissum started it ten years ago, the British had a monopoly on English-language proverbs. You'd have all these proverbs about kings and queens and tea and castles. It was a way for them to maintain their cultural hegemony over us. That's what Cat would say."

"Was Catherine by any chance paranoid and delusional about British people?"

"She was paranoid and delusional about a lot of things, but I tell you, she wasn't a killer."

"Were there any specific British people? Or anyone else who didn't like what the Proverb Laboratory was doing?"

"There was the English Defense League. Have you ever heard of them?"

"They're some kind of white supremacist group, right?"

"You must be thinking of the White Defense League. The English Defense League are an English supremacist group. As in, the English language. They believe English is superior to all other languages. They want to stop foreign language education in school, kick foreign speakers out of the country, make English the official national language, that kind of thing."

"And they're against the Proverb Laboratory?"

Mr. Lee laughed. "Or else they *are* the Proverb Laboratory. You know LaShay used to be one of them? No, from the look on your face you didn't. He was part of their cult for a while, then deconverted and went mainstream, spoke out against them for the press. But some people say that's all a ruse, and he's continuing their work. They always thought that with enough study, they could use create some kind of super-proverb that would encapsulate all wisdom and make them unstoppable, something like that. LaShay says he's beyond all that, but who knows? And if he is, well, maybe the cult that he left isn't so happy to have the US military meddling in their pet project?"

"That's so weird. I never heard about them before."

"Well, Cat heard a lot of things, working at the Proverb Lab for five years."

"Did she like it there?"

"Oh no. She hated it. She loves animals, you know. But the Proverb people thought they were just means to an end. She was in a big fight with LaShay just before she died. He wanted to test the proverb 'Every dog has its day'. He was going to lock up forty, fifty dogs in a dark room, to simulate night, and just *leave* them there. Wanted to "falsify the hypothesis". Cat said absolutely not, that was animal cruelty. So he did it anyway without telling her. She was enraged."

"Did she ever make any threats? Say she was going to blow the whistle on the lab or anything?"

"No, nothing like that. She said she was going to let sleeping dogs lie. Sorry. I don't think she had any enemies. She could be paranoid, she could be strange, but she was a good person, deep down. She wouldn't have done this."

"What's that?" Officer Karp interrupted.

He was pointing to a corner of the kitchen. At first I didn't see it. Then I did. There was a little drop of blood on the floor.

"Mr. Lee, do we have your full permission to search this house?" I asked. Officer Karp was already calling the station, letting them know they were going to need to send out an evidence collection team.

"Of course," said Mr. Lee. "I have nothing to hide."

Officer Karp went to the cabinet just next to the bloodstain, reached in, and pulled out a human heart.

"I...I swear I have no idea how that got there," said Mr. Lee.

"How late did you sleep yesterday morning, when the murder happened?" I asked.

"I...it was my day off. I slept until ten."

"And your house is about a fifteen minute drive from the lab. So in theory, your wife could have killed Ms. Bird, left the Proverb Laboratory, come back home, hid the heart in your cupboard, then gone back to the Proverb Laboratory and hung herself, all before anyone else showed up for work at nine."

"Why...why would Cat have done that?" pled Mr. Lee.

"I don't know," I said. "Did she have any motive for disliking Ms. Bird other than the affair issue? Anything at all?"

"Nothing," said her husband. "She spoke very highly of Ms. Lee. Apparently her computer had a virus once, and Ms. Bird solved it. She'd gotten a degree in cybersecurity from MIT before ending up in this job, and she was always working hard to keep the servers safe."

"One more question. Do you know who stole your wife's body from the morgue?"

"What?" asked Mr. Lee. "Someone stole..."

"This guy's as surprised as we are," said Officer Karp. "I say he's not a suspect."

We drove back to the station in silence. Either Catherine Lee had murdered her coworker, driven home to hide her heart in a cabinet,

and then gone back to work before killing herself – or somebody had put a lot of work into making it look that way. And somebody had stolen her body from the morgue. And there was some sort of web of international intrigue surrounding Doctor LaShay.

I decided I was going to go home, catch up on my sleep, and then think this over *really hard*.

III.

Sunday morning I walked back into the Proverb Laboratory. I was trying to get to Dr. LaShay's office, but I had ended up in the scale model of Rome again. I hadn't even taken an elevator, and it was on the tenth floor. That no longer confused me. I had finally figured out what I should have realized days earlier.

"Dammit!" said LaShay, almost bumping into me. "Rome again!"

"Doctor Zachary LaShay," I said, "You are under arrest, for the murders of Ms. Lisa Bird and Catherine Lee. You have..."

"You can't arrest me!" he said.

"...the right to remain silent," I continued. "Anything you say can and..."

Two men in black uniforms and sunglasses stumbled into the Rome set just behind him.

"No," said LaShay. "I mean you can't arrest me. The federal government has taken over the investigation, as of today. The entire affair has been classified as top secret. You're not even allowed to be here anymore."

I sighed. "Then I'll just take a moment to talk with one of these agents..."

The agents didn't move.

"You have one minute to get off this property," said Dr. LaShay, "or you will be in violation of federal law."

"All right," I told the agents. "Listen up." Then I explained everything.

The Proverb Laboratory didn't exist to test proverbs at all. Or they did, but not in the way they claimed. The Proverb Laboratory existed to test the Machine. A device that makes proverbs real. The Machine exerted

some kind of invisible force. The closer you got, the more the English language warped reality in order to make proverbs come true.

Why had Lisa Bird's tongue and heart been missing? Because the proverb goes "Cat got your tongue". The Machine's power had forced Cat to take Lisa's tongue and bring it somewhere that would qualify as her "having" it. And the same force had made her bring the heart home, because "Home is where the heart is". She hadn't meant to take the stomach too, but had removed it for better access, since "The way to a man's heart is through his stomach". Then her corpse, which had spent years absorbing the Machine's malevolent radiation, had vanished from the body bag where it was kept – "Cat's out of the bag".

What had Catherine used to bash Lisa's head in? The obvious candidate was one of the gemstone paperweights hidden in her desk, which she had brought back at the same time as she brought the tongue. I hadn't been able to find bloodstains on any of the paperweights, but that was unsurprising; "You can't get blood from a stone". She lived in a glass house, and had broken the rule about throwing stones, and so ended up dead and a murderer. The saying goes: "Kill two birds with one stone". Catherine had killed Lisa Bird; where was the other? Simple. Lisa sat on a chair made of hands, and a bird in the hand is worth two in the bush. She was worth two birds all on her own.

But it was too perfect. How had it all come together? A paranoid lady who thought everyone was having an affair with her husband. Who lived in a glass house and owned gemstone paperweights. Sharing a building with a woman named Bird. Who was sitting on a chair made of hands. In the closest office to the machine that made proverbs true. This wasn't a coincidence. This was planned. Someone must have arranged for a paranoid woman who lived in a glass house to be on the spot, given her the stone paperweights as presents, placed Bird on the hand-chair, then relied on the Machine to twist reality into committing the crime for him. They must have guessed that after it was all over, Lee would recover her senses, feel terrible guilt, and kill herself. Who could have done that? LaShay was the only person powerful enough to make it all happen.

LaShay was lying about the memorial to Rissum. They hadn't built a temple on the spot where Rissum died. That temple was Rissum himself. He had fallen into the very center of the Machine, where the reality-bending force approached infinity and proverbs would come true no matter how unlikely. "My body is a temple". Rissum's body was transformed into a temple in mid-air, then fell onto the ground below.

Why would LaShay hide this? Could it be because he had pushed Rissum into the machine himself to seize complete control over the operation?

But why? The rumor Mr. Lee had told me tied everything together. Dr. LaShay was still with the English Defense League. They had designed the Machine. He had pretended to go mainstream, pretended to partner with Dr. Rissum, in order to get enough money and status to build their invention. Now he was slowly testing its capacities, secretly funneling the results to his secretive language-cult. Rissum had been a convenient co-founder, but had to go in order to give LaShay full control. He had pushed him into the Machine, disguised it as a suicide, and was funneling the information – how?

Through a worm in the computer system. After all, the workers here all had Apple computers, and every apple has its worm. But LaShay hadn't realized that along with her sysadmin work, Lisa was an expert in cybersecurity, nor that she would come in two hours early every Friday. "The early Bird catches the worm." Lisa had found the infection and destroyed it. She hadn't realized it was important, but LaShay realized he couldn't reinfect the system without her finding it again and getting suspicious, and he couldn't fire her without raising eyebrows. So instead, he had arranged matters perfectly to guarantee she would get killed.

"Wow," said Dr. LaShay after a second. "You're actually right about everything. Except for one thing. The most important thing."

"What's that?" I asked.

"Not real federal agents," he said, gesturing at the men in black. "They're with me." He turned to them. "Throw him in the Machine."

I reached for my gun, but the agents were faster than I was, wrestled it away from me. Then one of them held each of my arms and started dragging me to the observation deck. A slight delay as we ended up back in Rome. Then we were there, and I was standing over the great rotating cylinder, staring at the shrine of Dr. Rissum below.

"Please don't let me die," I said. "I'm begging you. Please spare my life."

"You really think we care about that?" asked the first agent.

They pushed me to the edge of the scaffold.

"You really think I was begging because I thought you'd listen?" I said, but before I finished he had thrown me over. There was a gust of wind and a feeling of terrible wrongness.

When I had fallen five stories, into the very center of the Machine, I *wished*.

A flying horse was somewhat outside the scope of the relevant proverb, but there was no other way I was going to "ride" while in midair, so I got one. It made landfall right on the observation scaffold, then rushed for the door. The two agents rushed after it. Somewhere in the corridor, the horse dissolved, its Machine-powered existence apparently expending itself this far from the source.

I ran frantically through the corridor. "After him, you fools!" I heard LaShay shout. I reached the point where I thought the elevator should be, but of course I was in fricking Rome again.

One of the agents ran in, reached for his gun.

I ducked behind the terraced hill. There beside the desk was the gladiator costume, complete with weapons. I picked up a trident. "*Ave Imperator!*" I said. "*Morituri te salutant!*" Like a miracle, it worked. The agent aimed at me and pulled the trigger, but the gun blew up in his face. This close to the Machine, he should have known: "When in Rome, do as the Romans do."

The agent was still on his feet. I had made the mistake of getting far enough from the hill-desk that the agent could pick up the abandoned sword. He rushed at me. I didn't know how to swordfight, so after a second of thought I took a pen out of my pocket, parried with it. The sword shattered, and ink squirted out into the agent's face.

While he was trying to wipe off the ink and get his vision back, I ran out of Rome into one of the nearby corridors, then ducked into a randomly chosen door. Everything was pitch black.

"Come out, come out, wherever you are," the agent shouted. "You can run, but you can't hide!" Frick. I had forgotten that. In this place, the saying itself probably made that literally true. I heard the two agents opening and closing all the other doors in the corridor, getting inevitably closer to me.

Then I felt something cold and wet press against my hand. I almost

screamed, giving away my location, but after a second it...licked me. I remembered what Mr. Lee had told me. Dr. LaShay had stuck fifty dogs in a completely dark room to test a proverb. I felt around. More and more dogs started to trot up to me, mouths panting, tails wagging. I had one chance.

I flung the door open as hard as I could “Run away, doggos!” I shouted. “Run like the wind! This is it! THIS IS YOUR DAY!”

The dogs didn’t need to be told twice. They rushed out of the room, a yapping growling barking mass of teeth and fur. Big dogs, little dogs, old dogs, young dogs, the whole mass of dogs ran right into the agents, knocked them over.

“Call off your dogs!” one of the agents shouted, but I didn’t. Instead, I cried “Havoc!”, and let loose the dogs of war. I figured their bark would be worse than their bite; on the other hand, once bitten, twice shy. It probably balanced out. Hopefully I wouldn’t have to worry about the agents for a few minutes.

I ran to where I thought the elevator would be, and *of fricking course* landed in Rome again. And worse, there was the Doctor, who was holding the trident I had abandoned. The sword was nowhere to be seen. I knew I wouldn’t be able to fool *him*. He had probably forgotten more proverbs than I had ever learned.

“*Ave Imperator!*,” said Dr. LaShay, approaching unarmed-me with his trident. “*Morituri te salutant.*” Even his *Latin* was better than mine. I wished I was first in a village. But hope beyond hope, I realized that the computer at the terraced-hill desk was an Apple. I grabbed it, pulled out the plug, brandished it before me. The Doctor staggered back, as if kept away by an invisible wall.

But it didn’t hold him for long. He stretched out his arm as far as it could go, lunged at the computer with the deadly trident. The screen shattered and went black, its power lost.

I ran through the maze of corridors, and LaShay followed, trident in hand. After several turns, I reached where I thought the elevator would be, but Rome was everywhere at once, and I had lost my bearings. I ended up in the Observation Room, standing on the iron scaffold above the machine, as LaShay and his trident came towards me.

“So,” he said, “you figured out a way around being thrown into the



Machine. 'If wishes were horses, beggars would ride.' Clever. You could have been a great proverb researcher. But instead you had to meddle where you didn't belong."

"If you throw me into the pit, I'll just get another flying horse," I told him.

"Of course you will. So I'll have to kill you with the trident." I was backed up against the wall of the observation chamber. LaShay approached me confidently, knowing I was cornered.

"You really think you're going to win this?" I asked. It wasn't just to buy time. I really did have a plan, crazy as it was, but the more I could get him gloating, the better it would work.

"Of course," said LaShay. "I killed Bird and Lee, and now I'm going to kill you. Your death here will actually be quite convenient. I'll announce that the Machine is too dangerous and needs to be taken apart. Then the version the English Defense League is building in secret will be the only one in the world. With the data we've gathered here, they'll be able to direct its power anywhere on the planet. Imagine what we'll be able to do. Enlist old soldiers who are impossible to kill. Build fortresses on demand by turning arbitrary Englishmen's homes into castles. Control the seas using loose lips. Soon English-speakers will rule the world. And nothing – absolutely nothing – can stop us!"

*Perfect.*

"You've forgotten three things," I said. "First, that the lever is right here."

I grabbed the lever on the control panel and jerked it to SUPRAULTRAMAXIMUM. The air started to shimmer, and the walls started to shake.

"Second, that pride cometh before a fall."

The iron scaffolding started to tilt. LaShay stumbled, dropped his trident, almost tumbled over the edge, hung on just by the tips of his fingers.

"And third, that *crime doesn't pay!*"

I grabbed the pointy end of the trident, and smashed it into LaShay's fingers. With a scream, he fell into the belly of the Machine.

"Ibegyounottodothis," he said, and just like that he was on a winged horse. It flew up, towards the door and freedom.

I looked it in the mouth. I stared it straight in the mouth, looked as hard as I could, like my eyes were drilling into it. It started flickering, flying more slowly and hesitantly. "I beg, I beg, I beg," said LaShay. We stood there like that for a few seconds, him trying to wish harder, me trying to look the gift horse in the mouth harder, until finally the horse vanished, and LaShay fell back into the machine.

"I beg, I beg, I beg!" he said again, there appeared another horse, a horse of a different color. I looked it in the mouth again. It rose more slowly and hesitantly. But LaShay leaned forward, finally covered its mouth with his hand so I couldn't see it. "Your looking has no power anymore!" LaShay said triumphantly, and I believed him, since it came straight from the horse's mouth. The impediment removed, the horse shot upwards, right up to the ceiling of the chamber.

"Get off your high horse," I said, and the horse vanished a second time. A third time LaShay fell into the Machine, a third time he begged, and a third time a horse appeared beneath him. Again I started looking it in the mouth. Again he covered it with his hand, this time guiding the horse more slowly, trying not to let it overshoot and become higher than I was.

With a whinny of victory, the horse's hoof landed on solid scaffold. And that was when I struck the hoof with my trident.

For the want of a nail, the horseshoe was lost. For the want of a shoe, the horse was lost. For the want of a horse, LaShay lost his footing and tumbled back into the pit. He tried begging again, but it didn't work; that wasn't the proverb. For want of the horse, the rider had to be lost, for want of the rider, the battle, and finally the war and kingdom with it. He fell through the Machine, all the way down. By the time he hit the ground, he had turned into another temple, standing silently beside the temple of his co-founder.

I moved the lever to OFF. Then, avoiding the sound of barking and screaming – and only getting stuck in Rome twice – I finally made it back to the elevator and left the building.

IV.

My department was able to make contact with the real military. They

completed their investigation, and chose to shut down the Proverb Laboratory and destroy the Machine.

The two agents were found to be cultists with the English Defense League. On questioning, they led the government to their headquarters. The second Machine, the one that threatened to take over the world, was also found and destroyed.

I asked the prosecutor's office to submit a statement officially declaring that Catherine Lee was not responsible for Lisa Bird's murder, based on a sort of complicated insanity defense where she had been compelled to act by the Machine's influence. I don't think the prosecutor really bought it, but I think he figured she was dead anyway, so what was the harm?

Catherine's body was never found, which didn't surprise me. She really had absorbed a lot of radiation, working for the Laboratory for five years, and "the cat is out of the bag", while true, didn't suffice to explain how she had disappeared or where she was. I only figured it out later, after the whole battle with LaShay.

This life hadn't treated Cat too kindly. I hope things go better during her next eight.

# The Moral Of The Story

*[content warning: puns. This is mostly self-plagiarism from my Tumblr and Twitter]*

Once upon a time there was a small desert village with a single well outside town. One day a young woman went to the well to fetch water, and the well heard her crying, and asked “What’s wrong?”

She stopped her sobbing and asked the well “You can talk?”

“Yes,” said the well. “Long ago, the witch who lives in this town gave me life so I could serve as a guardian to the townspeople.”

“Alas,” said the young woman. “I am the daughter of that witch. She lived in peace with the townsfolk for many years. But the new mayor, who is a violent and hateful man, riled the people up against her, and they burned her at the stake. I am young and still do not know very much magic. I tried to curse them, but my curses fizzled. Now I worry I will never avenge my mother’s death.”

“Do not be afraid,” said the well. “I will take care of this.”

The next morning, when the Mayor came to fetch water from the well, he heard an odd noise coming from the bottom. He peered over as far as he could to see what was happening. Then an impossibly long arm shot up from the bottom of the well, grabbed the mayor, and pulled him into the well shaft. There was a horrible crunching sound, and nobody ever saw the Mayor again. The townsfolk apologized to the witch’s daughter, and they all lived happily ever after.

Moral of the story: Living well is the best revenge.

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Pixar’s movie *Up* won the Academy Award for “Best Picture” and was widely hailed as one of the best children’s films of the decade. In fact, some people argued it was *too* good, and that kids were ignoring school, chores, and other responsibilities to watch it again and again. They said that along with the cute plot, the short, catchy name gave it an almost drug-like addictive quality. This made a lot of people very angry, and Pixar agreed to give its addictive must-watch movies longer names in the future.

Moral of the story: Do not call *Up* what you cannot put down.

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There's a new report out of CERN that a team of scientists has unraveled the structure of the photon. Apparently this started years ago when some equations showed that photons acted like tiny "hands" – structures with a "palm" and radiating "fingers" – which "crawl" across time/space and "grab" the solid particles they interact with. This explained most of the properties of light but wasn't an exact match for the data. The latest result is that single photons are actually made up of hundreds of these shapes, all joined together into a single particle, and this is how they're able to travel so quickly.

Moral of the story: Many hands make light work.

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Once upon a time there was an ugly duckling. All of the other ducklings had grown their beautiful white soft downy feathers, but this duckling had no down feathers at all and was bald and ugly and all the other ducklings teased him.

He went to the mysterious crow who lived in the woods and asked for help. The crow said to repeat the magic words "HOCUS POCUS" at midnight with a full moon, and then he would grow his down feathers. The duckling tried that, but the moon just laughed at him and said the magic had no power here.

So he went to the creepy raven who lived in the swamp and asked for help. The raven said to repeat the magic words "ABRA CADABRA" at high noon on a sunny day, and then he would grow his down feathers. The duckling tried that, but the sun just laughed at him and said he wasn't bound by the magic.

So he went to the wise old owl who lived in the tallest tree and asked for help. The owl explained that the duckling should just ignore the mockery of the other birds and accept that he was okay just the way he was, because there were no magic spells to make ducklings grow feathers.

Moral of the story: You are beautiful, no matter what they say. Words can't bring you down.

---

Once upon a time a young lady died and went to Hell. At the check-in

desk, Satan asked her age. She was in her twenties, but looked much younger; she thought quick and realized that even in Hell, they probably wouldn't be mean to children. So she told Satan that she was twelve, and sure enough he said she wasn't old enough to be held accountable for her sins, and ushered her off to a more peaceful part of Hell reserved for ages eleven through thirteen. She met the other sinners there and realized that many of them, like her, were older people who had lied to get out of their punishment.

Satan began to suspect something like this was going on, so he set up hidden cameras in the 11-13 wing of Hell, trying to catch people acting like adults or admitting to one another that they had lied about their age. But there were hundreds of millions of sinners and Satan couldn't monitor all the cameras himself. So he went up to the mortal world and asked for the best supercomputer they had. The mortals recommended a newer model of Deep Blue, the supercomputer that had first beaten a human world champion at chess. Satan picked one up from IBM and went back to Hell, where he programmed the Deep Blue to monitor all of the hidden camera feeds at once and report any suspicious activity.

Sure enough, after a few days, he got thousands of reports of people acting older than thirteen. He hunted them down and removed them to Hell proper, where there was much wailing and gnashing of teeth. And it all could have been avoided if they had just stuck to their charade and acted as young as they said they were.

Moral of the story: Don't get caught, be tween – the Devil and the Deep Blue see.

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By 2050, screens have shrunk and become more flexible until the dream of "programmable paper" becomes a reality. Citizens of the future read newspapers like the ones in Harry Potter that include moving images and even videos of important events. This new technology even makes it as far as the US Post Office, where they decide to include programmable stamps. Instead of a static picture of eg George Washington's head, it will have a moving image of Washington speaking and giving his famous Farewell Address.

Unfortunately, the technology isn't ready for the kind of abuse that envelopes undergo on their travel throughout the country and the world. Most of the computerized stamps become corrupted and "crash"; in a particularly common bug, they try to reload but just end up displaying "GENERATING IMAGE..." permanently. The government

has no money to fix the problem, so people just get used to stamps on their letters that say “GENERATING IMAGE...” instead of having interesting pictures on them.

Moral of the story: If you want a vision of the future, imagine a human face booting on a stamp forever.

# The Study of Anglophysics

I.

Dear Dr. McCord:

Seven years ago, our research staff read with interest your work on Berkeleyan idealism. We were particularly fascinated by your seemingly outrageous claim that it might be possible for individuals to imagine mental worlds so strongly that they would take on a reality of their own.

At the time, as our laboratory had an interest in novel solutions to the overpopulation problem, we embarked upon a test project to see whether a parallel world could be imaged and then colonized by citizens from our own dimension. Using advanced science you could not possibly comprehend, we came up with a practical implementation of your idea. Dr. Michael Adwell, whom I believe you met during your time in Oxford, volunteered to enter the device we had constructed as our first research subject. We very briefly imaged an alternate world based on the contents of Dr. Adwell's mind before the good doctor unfortunately had a grand mal seizure. He was disconnected from the device and rushed to the hospital, where he passed away several hours later.

Two years ago we revisited some of our calculations on the project and determined, to our surprise, that the world Dr. Adwell had created might still exist in some sense; that it had somehow managed to sustain itself separate from the doctor's mental activity. We worked feverishly to construct a device that might let us interact with his imaged world. Six months ago we succeeded. The computational demands of the machine were immense, but after throwing the remainder of our budget for the year at the Kyoto Supercomputing Laboratory, we were able to rent enough processing power to translate myself and Dr. Lachlan Fairchild into the imaged world, which we dubbed "Adwellia" after our late colleague. Our superiors informed us that when the next fiscal year rolled around in four months, there would be enough money in the budget to translate us back home.

II.

On first arrival, Adwellia seemed much like home. We landed on the



shores of a small lake in what seemed to be a wooded area. Since it was getting dark, we soon set to pitching camp for the night. Our first unpleasant surprise was that the kerosene heater we had brought with us wouldn't work, leaving us cold and disheartened. Lachlan collected some logs to build a fire, but our matches didn't seem to work either. I remembered the seventh page of your paper, where you had posited that an imaged world would run on the same physics of our own world, since it would be bound by the expectations of the imager. Dr. Adwell had certainly understood enough chemistry to know that matches should start fires, but it seemed one of our most basic predictions had already failed.

I will not say whether we were more motivated by curiosity or by the bitter cold, but we tried dozens of different branches – small, large, young and green, old and rotting – and everything from dousing them in kerosene to the old-fashioned method of rubbing sticks together to create friction.

Finally, I succeeded in getting some branches from an old fir tree to alight. In relief, the two of us huddled close to the fire. But our curiosity was only heightened when we found the area near the fire to be unmistakably *colder* than the surrounding air. Here our chill overcame our scientific spirit, and we decided to deal with the problem in the morning. We got into our too-thin thermal sleeping bags and passed a miserable and freezing night.

When we awoke, the fire had gone out, and in its place stood a pile of hats – twenty of them, to be precise. I would have called them fedoras, although Lachlan said the particular style was more popularly known as a Homburg. We debated taking the hats, but we had been thoroughly spooked. Instead we picked up our camp and journeyed south, where it looked like the wood was beginning to thin out.

Around midday we spotted smoke, and dared to hope we were coming upon a settlement. By evening our guess was confirmed, and we saw a village of conical adobe huts. We prepared to gesture our request to trade trinkets for lodging to the inhabitants – who were far too dark skinned to be European but who did not quite pattern-match to my memories of any particular human race. Imagine our surprise when we found they spoke English – though with abominable grammar. The headman introduced himself as Somon, and was all too happy to accept our trinkets in exchange for a nice warm hut to spend the night in.

We endeavored to learn more about these people in the morning, but

by this time were tired enough to call it a night. We could not help inspecting the heating mechanism in our room, which seemed to be a mud bowl in which sheaves of wheat, small rocks, and little mud figurines that looked like people had been placed. Totally absent any visible mechanism, the setup was emitting heat – and what was more, a ball set in a track along the edge of the bowl moved continuously around in what seemed to all the world to be perpetual motion, making an annoying crackling sound as it passed over little leaves set in the rim. We had only a little time to exchange theories before falling into a deep sleep.

The next morning, the bowl was no longer warm, the ball had stopped moving, and the objects within had apparently transmogrified into a miniature wheelbarrow. This was strange magic.

The villagers were already up and about, so we found Somon and tried to get some better conversation in.

“We are scientists,” we told him “from far away, looking to gain a better understanding of how things work here.”

“Here in Mogonaw?” asked Somon, using what we later found was the name of the village. “Not well.” He smiled, showing very pearly teeth.

“We were hoping to set up a laboratory – a few metal huts and a big machine – maybe on the outskirts of town. We would pay you for food, maybe for help with certain things. We have many tools to trade, and lots of gold and metal.” Not exactly true – what we had was a portable nanofactory, translated in with us as an easier alternative to bringing supplies. But we could get tools or transmute elements pretty quickly.

“Is of course,” said Somon, with the delight of someone who had stumbled entirely by accident into a beneficial arrangement. “What will you be needing?”

“Well the first thing,” interrupted Lachlan, “is we wanted to know how your heating device works. The one with the wheat and the rocks. It was new to us.”

“You not have this in your village?” said Somon, with a frown. “Is not obvious?”

“No,” I said. “Where we come from, it’s not obvious at all.”

Somon brightened. “Your village,” he declared “not know true names!”

He picked up a rock from the ground. "True name of this is...rock."

We both nodded, mystified.

He grabbed a sheaf of wheat from a passing villager, who gave him a glare. "True name," he said, "is...wheat."

He said it with the same mystical intonation with which one of our colleagues back at the laboratory would announce a particularly earth-shattering result.

"Yes, okay," said Lachlan, kind of miffed. "I actually think we do know true names of things. It's the same in our language."

Now it was Somon's turn to be mystified. "Then...where is confusion?"

"The heating device," said Lachlan, narrowing his eyes. "How does it work?"

"Is obvious!" said Somon, like we were idiots. "Wheat and rock and art become work and heat and cart. The work push little ball around. Then ball make noise, continuing reaction."

"But..." I interjected, because it looked like Lachlan wanted to grab the headman and wring his neck "*why* do the wheat and rock and art become work and heat and cart."

"Is true names" said Somon, and shrugged.

"Holy shit," said Lachlan, at exactly the instant when I remained just as confused as I had been before. I stared at him.

"Holy shit," Lachlan repeated. "This world fucking runs on anagrams. English language anagrams."

Wittgenstein once said that the limits of our language are the limits of our world. Some say that mathematics is the language of God. Maybe that was why our world ran on math. Well, English had been the language of Dr. Adwell. It had been the lens through which he made sense of reality.

Maybe our hypothesis that his imaged world would run on the same physics of our own had been premature.

What if his world ran on English?

"The fire!" said Lachlan, who as usual was a step ahead of me. "Fir branches and heat. Fir plus heat becomes fire plus hat. So it removed heat from the atmosphere, and created fire and a hat."

"Twenty hats," I reminded him.

Lachlan was already deep in thought. "It's all stoichiometry," he started saying, almost faster than I could follow. "In our world, water is H<sub>2</sub>O. H-O-H. Here, a fir tree has to be literally made of F-I-R. Twenty six letter-elements, forming a near-infinite amount of word-molecules. Suppose we burned three kilograms of fir branches...don't know the molar weight here, but suppose each letter weighs the same and there's one mole per kilogram, just bear with me. That's one mole each of F, I, and R. So it must have absorbed some sort of four mole equivalent amount of heat...whatever that means...and then spit out three moles of hats and four moles of fire. Three moles of hats in this system would be three kilograms of hats, that would mean each hat weighs 150 grams...it all checks out! Somon! Quick! Show us how you make something else!"

Somon looked at him. The headman seemed as confused as I was, but for different reasons.

"Make...what?" he asked.

"I don't know. Clothes, tools, anything."

"My daughter Genea live in here," he said, gesturing to a hut on the outskirts of town with some smoke coming out of it. "She is weaver."

The "weaver" actually seemed to be performing some sort of complicated chemical reaction. She was holding beets over a cauldron that was bubbling up into a primitive fume hood, then throwing them into what seemed like a vat of tar. Water was running out a hole in one side, and on the other, a roll of cloth was getting steadily longer.

This time I got it before Lachlan. "Chlorine," I said. "Chlorine plus beets plus tar becomes cloth plus brine plus tears."

"That's not right," said Lachlan. "You're missing an 'e'".

"No I'm not," I said. "It consumes twice as much tar as chlorine or beets, and produces twice as many tears as brine or cloth."

"I think," said Lachlan, "that we had better get our laboratory set up

sooner rather than later.”

### III.

This we did, at record speed. Not wanting to frighten the villagers – or expose ourselves to prying eyes – we set ourselves a kilometer south of town, on a cape overlooking a great sea. On the headlands of the cape was a small hill from which you could see for miles, and there we completed the week-or-so’s work of getting the nanofactory up and running. Its first job was to extrude us two aluminum Quonset huts, which became our homes away from home.

From our little encampment the ocean stretched on as far as we could see. I wondered if there were other continents on this world – figuring out its size really should have been one of our first priorities. But we were too fascinated by this world’s weird linguistic elements and reactions – anglophysics, we dubbed them – to properly investigate anything else.

The first and most obvious question was why everything wasn’t reacting all the time. How come every time someone touched a rock, the skin + rock didn’t become corks + ink? Just the air alone should have destroyed a wide variety of objects.

(“Oh, come on,” I told Lachlan. “The air doesn’t count”. Lachlan had then gone on to prove me wrong by getting the iron tools we had brought to rust, then proving the rust happened faster in moist air, and air that was full of dust particles. “AIR plus IRON plus DUST,” he told me “equals RUST plus IONS plus ARID. Things aren’t rusting in this world because of oxidation. As long as it can suck dust and moisture from the air, it’s rusting by Crazy Anagram Logic.” So the air definitely counted.)

The first thing we discovered was that nature abhorred non-words. AIR and DUST wouldn’t react on their own to become RUST and IA, because IA wasn’t a thing.

“What about AI?” asked Lachlan. “Why not rust plus an intelligent computer?”

At the time, my answer was “Shut up! The world might hear you!” I would later learn this was not nearly as funny as I thought.

But at the time, we made quick progress. Simple materials and short

words seemed to be most stable, with complicated or abstract concepts rarely forming spontaneously – which, at least, answered our AI problem. And reactions usually wouldn't happen at all without sound, which seemed to play the same role in this world that heat did in our own. Lachlan had suspected this almost from the beginning – that the crackling leaves underneath the ball had provided the sound-energy to continue fueling the reaction that kept us warm that first night. But it wasn't until we heard the cacophony of a village festival that we knew we were on the right track.

“WHAT ARE YOU DOING??!” I had yelled at Somon, over the din of drums and cymbals and screaming villagers.

“MAKING BEER!!!” Somon answered.

It had turned out that the villagers used pee and bran to produce beer and pans, but that the reaction went unpleasantly slowly unless they shouted it along. The shouting was, of course, egged on by the beer they had already produced, which sort of made it an autocatalytic reaction if you squinted. They offered us some of their beer, but even though I knew things worked differently here my standards were a little too high to drink beer *literally* made of pee and so we returned to the lab. On our trip back, Lachlan pointed out that all of the villagers' iron tools had been carefully taken inside during the festival, so that the noise would not cause them to rust.

Our next big discovery was a week later. I woke up at 7 AM with Lachlan pounding on the door of my aluminum hut.

“OMAR!” he was shouting. “TAKE A LOOK AT THIS!”

Sitting on his palm was a one inch tall man, naked and hairless, looking terrified. He looked like he would have run off if there was anywhere to run to.

“What in the...?”

“I found a volcanic vent, up in the hills to the west. There was a source of methane. I broke it down into HEAT and MEN. But there wasn't enough MEN to form someone full sized. So I got this.”

“Lachlan, you've got to help him!”

Lachlan gave a grunt, as if annoyed to be reminded of the ethical implications of his work. “How?”

“Can you speak language?” I asked the little man on Lachlan’s palm.

In response, the man screamed. I took that as a no.

So I dragged Lachlan down to the village, where I woke up an annoyed Somon. “Somon,” I said. “We found a way to break methane into...”

Somon’s eyes went wide. Then he got angry. “No methane!” he said. “Is taboo! Will...”

He saw the homunculus in Lachlan’s palm. With a deft motion belying his age, he yanked the little creature away from Lachlan and snapped its neck. I gasped. Lachlan looked annoyed.

“Is TABOO!” shouted Somon, with an anger I hadn’t seen in him before. “These things! Not men! No speech! No mind! Must not make! Little man is taboo! Methane is taboo! If you make little man, no longer stay with us!”

I calmed him down, promised we wouldn’t be doing any more experiments with methane, said we were new here, didn’t know what we were doing. I asked him for more advice, asked him about any other taboos. He seemed irritated, assumed we should know what they were, seemed to think less of us with each question indicating our ignorance. Finally we gave up and made the long trek back to our laboratory.

Our next few weeks of experiments were less bloody, but still exciting. Suppose we took a mop and the guts of an animal, and shouted at them until MOP + GUT reacted to POT + become GUM. Would the pot be the cooking implement, or would it be marijuana? For that matter, why shouldn’t it be a top, the child’s toy? Why shouldn’t the gum form a mug, fit to drink coffee from?

In our first experiment, we surrounded our apparatus with pans and food, and were unsurprised to find we ended up with cooking implements. We repeated the experiment, but this time surrounding the apparatus with bongs, tobacco, and other drug paraphernalia – this time we got marijuana. We wanted to get a playful child to see if we could produce tops, but news of our work with methane had gotten out and spooked the villagers, and they were understandably unwilling to let us borrow one of their children.

The third experiment was in my opinion the key to this entire process. This time we surrounded the apparatus with pans and food, but both

Lachlan and I concentrated very very hard on marijuana, and talked about marijuana with each other while the loudspeaker the nanofactory had extruded blasted sound at the reactants, and sure enough, we got marijuana.

Somehow our expectations were guiding the physics in a way that the letters themselves couldn't. I started to wonder what had become of poor Dr. Adwell. Was the god of this world a deist, who had created it shortly before dying in a hospital ICU in a very different planet? Or was he in some sense still here, still actively guiding things?

The reaction that rusted iron started to seem more and more suspicious. What about that ARID? In our experiments, making adjectives had been almost impossible, requiring more sound catalysis than any noun we had encountered so far. But ARID seemed to form of its own accord. What if Adwell somehow remembered that iron was supposed to rust, and *privileged* that reaction as the sort of thing that ought to go on? What if the reason everything didn't implode upon itself was Adwell ensuring that everything in his imaged world happened according to some plan?

Then our proof that we could alter our results through concentration and careful priming would take on a whole new meaning.

Did *reminding God what chemical reaction we wanted* change experimental results?

IV.

"We're going about this half-assedly," Lachlan told me one morning our sixth week in Adwellia. "All of this looking for clever anagrams is taking up too much of our time, delaying us in supremely great work. We need to do this analytically. Get a bottle of As, a bottle of Bs, so we can create whatever the hell we want."

This proved easier said than done. We got the nanofactory to extrude us a very complex apparatus, a centrifuge, and what we took to calling the "sonic ray" – a machine that made deafening noise along a very narrow arc and which could catalyze reactions much faster than shouting or drumming. It turned out to be the key to making far more complex products than we had previously attempted. But our first use was a plain and simple failure.

We had decided to start with granite, which we would break down into



tin, rags, and the letter E. We would then centrifuge the decay products, with the three-letter tin and rags going one way and the pure E going another.

Nature, remember, abhors non-words. No sooner had we forced some E into a test tube than the tube itself transformed in a great explosion to gelatin and a tiny, near-microscopic donkey. E + GLASS = GEL and ASS. We couldn't say we couldn't have seen it coming. It could have been worse – I was just glad that Dr. Adwell's ascended mind's first association with the latter word was "donkey".

We tried the experiment again with a zinc vial – zinc because it was implausible that there was an ZINC + E anagram lurking out there – and ended up with a mat of eels. Through this whole time, we had been debating the problem of ambiguity – who was to say that our granite was GRANITE rather than ROCK or even STONE – and the answer seemed to be that Dr. Adwell – or whoever was watching Upstairs – was mostly sympathetic to our efforts. Well, the sympathy ended when we started trying to isolate single letters. ZINC became METAL and thence EEL MATs.

Our effort with mud was even worse. We put a lot of time into making sure the mud we got was very classically mud – not ooze, not muck, certainly not dirt. And there was no good way MUD + E was becoming anything. We turned on the device.

The Es disappeared. Seriously. Granite went into the centrifuge, tin came out, but there was no sign of an E anywhere, and rather fewer rags than usual.

"This is really weird," I said.

"Thanks, Einstein!" said Lachlan. "I never would have figured that out without YOUR FUCKING COMMENTARY."

I should have told him to calm down, but the experiment had upset me too. "Well it wasn't MY BRIGHT IDEA to try to ISOLATE ALL THE LETTERS," I said. "WHICH REMINDS ME! IF YOU THINK I'M GOING THROUGH THIS TWENTY FIVE MORE TIMES, YOU CAN GO FUCK YOURSELF!"

Lachlan swung at me, missing by an inch. I kicked him, right in the knee, and he fell into the experimental apparatus, knocking the whole thing over. Both of us went down with it. For a second, the sonic death

ray shot straight at us – EEEEEEEEEEEEEEEEEEEEE! and then its safety kicked in and it turned off. We sat there, stunned, bruised, in pain.

“Rage,” said Lachlan. “GRANITE becomes TIN plus RAGE. Holy fuck, we created an emotion.”

It had happened before, sort of. The wheat and rock and art, they had come together to produce work, which was an abstract concept. But it was still in the domain of physics. “Work” seemed like the sort of thing that could come out of chemical reactions, kind of like heat. But rage? This was something really new.

That night, we made the short trek into the village and asked Somon what he thought.

“Rarely,” he said. “Sometimes, when festival is very loud, strange things happen. Should avoid. Very bad. This is taboo.”

The next week, I knew something was up. Lachlan was missing our daily debriefings, not getting any work done. Finally I broke the most important unwritten rule of our little community. I went into his aluminum hut without knocking.

There he was, sitting with a blissed out look on his face. Beside his bed sat a miniature version of our experimental apparatus, complete with its own sonic death ray – he must have privately ordered it from the nanofactory, then deleted the records. It was reacting little tchotchkes from the village – dolls, balls, play swords – with our glass specimen jars. Tar was streaming into the waste bin.

I turned off the sonic ray. Lachlan awoke with a start. He seemed about as angry as he’d been the time we accidentally produced rage from granite, but this time I knew he had a less noble reason.

“What the fuck are you doing, barging in here like this?”

“You’ve gotten yourself addicted,” I said. “Addicted to joy.”

Lachlan didn’t deny it, as his TOY + JAR -> JOY + TAR reactor was right there.

“Look,” he said. “It’s been two months now, stuck in this stupid world. It’s going to be another two before the lab brings us back home. The villagers are crazy, physics runs on English, and the nanofactory can’t produce any entertainment that’s remotely entertaining. The letter

isolation project is a failure, you no offense are one of the most boring people I've ever met, and when I try to get some of the village women to look at me they murmur something about taboos and give me the cold shoulder. Give me a break here, Omar!"

"Lach," I said. "You're neglecting your work. We still haven't gotten anywhere near the bottom of anglophysics, let alone figured out the most basic stuff about this world like how big it is. You sitting here blissing out on raw linguistic joy isn't something we can afford right now."

"Fuck you," said Lachlan, but he didn't protest as I picked up his mini-apparatus and brought it to the nanofactory's disassembler chute, nor as I reprogrammed the nanofactory to make sure all its records would be public from now on.

V.

A week after that incident I finally got the nanofactory, with great creaking and protesting, to extrude a small aircraft so I could explore the surrounding area. The villagers were delighted, having never seen anything similar, and several of them demanded rides – increasing our popularity a little after the methane debacle. When we were done appeasing the natives, I took off and started mapping Adwellia.

We seemed to be at the southernmost extent of an island about three hundred miles east to west and twice that north to south. The island was mostly forested except for the broken volcanic area nearby where we had gotten the methane and some hills further north. Four hundred miles east of us there seemed to be another continent or large island, but that was about the limit of my range and so I told myself I would explore the new land another day.

The distances allowed me to do some geometry and calculate the size of the world. Adwellia appeared to be a spherical planet about the size of the Earth. As far as I could tell it had one sun and one moon, and there were normal stars in the sky. It seemed to get colder further north and warmer further south, though I wasn't able to fly far enough to confirm it had proper poles and an equator.

By the time I finished these explorations, about a week after they began, Lachlan had developed a new obsession.

"I can't solve the letter isolation problem," he admitted. "But someone

else can. Someone like Einstein.”

“Great,” I said, sarcastically. “All we need is...”

Then it hit me. Surely he wasn’t that crazy.

“Yes,” he said. “Why not synthesize Einstein? Or some other brilliant scientist who’s more creative than we are. I’ve been going through the dictionary looking for proper combinations. It’s not that hard.

This proved optimistic, but the equation upon which we eventually settled was STONE + TIN + FORT = EINSTEIN + FIRE. The only difficulty was obtaining the fort, since the villagers here did not seem to be of a militaristic bent, but I had found some ruins further north during my explorations, and one of them did indeed seem to be an old stone fort, perhaps constructed by the villagers’ ancestors. I proposed we get a party of villagers to help quarry fort material, but Lachlan objected that they would probably just have some stupid taboo about it, so instead I landed there with the aircraft and laboriously ferried fort parts home in twenty pound increments, on my lap.

Once we had enough fort to stoichiometrically produce Einstein, getting the stone and tin was easy. But getting the reaction to work proved impossible. No matter how many physics books we stuck around our apparatus, no matter how hard we concentrated on the great scientist, the reaction spat out absurd things like ferns, nits, and a tooting sound – or forests, nits, and one ton weights, or a nose with a tit in the front, which trust me was *really* awkward and which we threw into the nanofactory disassembler chute as soon as we could, believe you me.

After about thirty tries, Lachlan announced that the problem was obvious. You see, we needed a *capital* E.

I grudgingly admit that, even after two months in a world where stone was composed of S, T, O, N, and E, the thought that there were different atomic units representing lowercase and capital Es seemed absurd. But as always, my sense of impossibility surrendered to crazy reality and I figured that Lachlan was probably right. We needed a capital E.

Two days later, Lachlan showed up at the laboratory with a very suggestive looking sack.

“Lachlan, what were you just out doing?” I said, hoping the answer was

anything other than what I knew it was going to be.

"Just grave robbin'" he answered. "I got us the corpse of a lady named Eder, who died of pneumonia yesterday. Don't worry, no one saw me take it."

"Oh, come on," I said. "When they find the grave disturbed, who are they going to suspect? The other villagers, who they have known their whole lives? Or the mysterious strangers on the storm-wracked cape outside of town who have already violated their sacred taboos. Lachlan, *you* are a fucking idiot."

"Maybe I am," said Lachlan. "But if I'm so stupid, good thing we'll have Albert fuckin' Einstein around to help provide some brains for this operation."

The new equation was  $EDER + TIN + SNAIL = EINSTEIN + LARD$ .

So God help us, we hired some villagers to collect snails for us, and when we had hundreds, we poured poor Eder's bones into the reaction chamber along with the snails and some tin and started the sound.

And Einstein started to grow. At first he was tiny, smaller than the methane-men in Lachlan's palm had been, no bigger than the snails that surrounded him. But as bones and metal and snails slammed into him, he grew bigger, all the while screaming and covering his ears as the sonic ray did its gruesome work. We saw him, child-sized, beating up against the glass wall of the reaction chamber, ever growing, ever screaming.

"You're mad," I told Lachlan. "We've got to stop this."

"Maybe I am," said Lachlan. "But think! Einstein! The greatest scientist in recorded history! Think what we could do! Revolutionize not only our study of Adwellia. But we could bring him back with us, get the lab to translate him as well as us. We could turn Adwellia into a genius factory that would revolutionize civilization back on Earth. Omar, this *has* to be done! The potential in anglophysics makes a Nobel Prize look like a tee-ball trophy."

When Einstein was fully formed, and released from the reaction chamber, he attacked us. We subdued him, using weapons extruded from the nanofactory, and kept him in a cell. For three days we tried to talk to him, and he responded by screaming wordlessly at us and

spitting in our faces.

I don't know whether there was something theological going on – whether Einstein was just a homunculus lacking a true soul. Or whether it was just very simply that our Einstein was psychologically an infant, that no one had taught him so much as language let alone physics, and that Adwell or whoever was up there wasn't going to assume we meant “the smart Einstein, who knows lots of stuff” in the way we wanted.

Our Einstein was a giant infant, not even an infant, a fetus that should never have been born. On the third day, by mutual consent, we stuck him in the nanofactory disassembly chute and resolved never to speak of him again.

VI.

That was the last time I worked together with Lachlan on anything of note. After that we retreated to our separate aluminum huts, acknowledging each other only when our paths crossed on the way to the nanofactory for some crucial part.

I found him creepy. He *was* creepy. And he thought I was holding back our research. Maybe that was true too. In either case, it was a terse nod, a couple of words, and the tacit acknowledgment that it wasn't worth resolving our hostility in the month or so we had left before we were transferred back.

I spent that last month trying to build on my theory that Adwell's mind was somehow working behind the scenes running everything. The catalytic property of the sound, I theorized, was its ability to *get Adwell's attention*. It was a sort of “HEY, GOD, LOOK OVER HERE, WE'RE DOING SCIENCE, BETTER APPLY THE LAWS OF PHYSICS RIGHT AWAY”. I know it sounded bizarre, but my early experiments bore me out. Rapidly flashing bright lights seemed to speed reactions almost as well as sound. So did – because sometimes the simplest solution is the best – shouting “ADWELL! LOOK OVER HERE!”

With these advances, once again entirely new classes of reaction became possible. No longer were we limited to the highly reactive simple materials with short names. Long strings of words, complex abstractions, even adjectives came within our reach. It was exciting.

But once again, it was Lachlan who was really pushing the frontiers.

One night he started banging on my door: “OMAR!” he shouted. “I DID IT!” When I went out he practically dragged me into his hut, which was nearly piled, floor to ceiling, with papers that turned out, on inspection, to be various IQ tests the nanofactory must have been carrying in its databanks.

“What did you do?” I asked.

“I couldn’t create Einstein,” he said, referring to the still-fresh debacle – “so I decided to turn myself into Einstein! Look! I’m producing SMART. And it’s working!”

His sonic ray – now only a fraction of the power of my own multimodality parasonic device – was reacting smoke and carts into coke and, apparently, smart. A complicated system of tubes and centrifuges was catching the smart and binding it into a containment chamber linked to a helmet. Clearly someone was supposed to put it on.

“And you’re saying it works?” I asked.

“The IQ tests don’t lie,” said Lachlan. “I was 152 two weeks ago. Now I’m consistently getting in the 160s.”

Judging by the number of tests, he must have been obsessively checking his numbers every hour or so.

“Now,” he said, “I’m going to try that letter isolation thing again.”

I judged by the shouts of rage and frustration I heard over the next few days that it wasn’t working.

Two days later, Lachlan asked me if he could borrow my advanced parasonic ray. I refused. That evening, it went missing for about three hours before turning up on top of my desk. I noticed Lachlan now had one exactly like it.

I soldiered on. In between my experiments, I played a little game predicting what Lachlan was trying to synthesize by the objects he took from the nanofactory and the supplies he ordered brought in from the village. One day it was buckets of dew, carts full of animal legs, and an entire cage of live minks – my best guess was he was trying to get KNOWLEDGE, but I couldn’t get the stoichiometry to line up. Judging from his screams of frustration that night, neither could he.

The next week, it was load after load of potatoes, fence posts, and a tank of minnows. It took me half an hour to come up with OMNIPOTENCE, even though once I made myself start thinking like Lachlan it was obvious.

I started to become worried.

One day, three months and two weeks into our mission and only fourteen short days before we hoped the laboratory would re-establish contact, I went out for a sortie with the plane and came back to find a disaster area.

Our huts had been smashed open. The nanofactory had big dents in its aluminum casing. Inside, all my lab equipment had been broken, my papers thrown on the floor haphazardly.

I went into Lachlan's hut. IQ tests everywhere. He was missing. So was his parasonic ray. I figured they had grabbed my partner in his sleep, before he'd had time to resist. In retrospect we really should have put up some defenses, but we hadn't expected to need them.

The nanofactory was still online. It was pretty hard to break – especially if, as I suspected, the vandals were villagers armed with clubs and rocks. I told it to extrude me some overwhelmingly powerful weaponry. After making me wait an hour, it gave me a ring that upon threat would instantaneously unfold into a device that generated an invincible barrier around the wearer, plus a hand-held matter disruptor. Thus armed, I walked into the village and found Somon.

I didn't have to bring up the subject of Lachlan. "Is evil man!" the headman told me, as soon as he saw me. "Broke taboos! Created life! Dug up grave! And today! Today was worst! Kidnapped my daughter, Genea! No more okay! Tonight gets beaten! Tomorrow dies!"

Raising my invincibility shield, I wandered into the public square. There, whipped bloody and tied to a post, was Lachlan.

"You kidnapped the headman's daughter?" I asked him. I didn't even give him the dignity of pretending to doubt whether it was true.

Lachlan smiled. "Genea. A perfect name for my reaction. I could have been a Genius, with a capital G."

I don't know if it was that smile, or the blood all over him, or the lack of remorse in his voice, but at that moment, I'd *had it* with Dr. Lachlan



Fairchild. I lowered the matter disruptor.

"You know," I said. "That is it. I'm not even going to rescue you. You're a menace."

"You don't have a choice," said Lachlan. "I have a nuke. These people don't understand the concept, but lucky we've got a genius like yourself. Let me go or I blow this entire planet sky high."

"Even if you managed to extrude a nuke," I said "which you didn't, because I checked the nanofactory's public records before I left – even then, nukes don't work in this world. Nuclear fission isn't an anagram of anything."

"A metaphorical nuke," said Lachlan. "I mean, I've figured out this world's equivalent of a nuke. It's very clever. Without the SMART, I never would have been able to think of it. I'll..."

My best course was to immediately, like split-second immediately, raise the matter disruptor and shoot Lachlan. I could do it before he had a chance to react, and it would solve the whole damn problem.

Instead I took the worst course, which was to raise the matter disruptor, obviously intending to shoot him, and vacillate at the last moment because I'd never killed anyone before and I wasn't sure I had it in me and instead of finding out my brain wanted to sit and ponder this for thirty seconds.

Lachlan took a ring off his finger and it unfolded it to reveal his parasonic ray. Then he furrowed his brow in concentration and it let out a screech.

I shot the matter disruptor. Man, post, and town square changed into their component atoms...letters...whatever.

The villagers ran, screaming. Some of them ran away from the explosion. Others ran towards the explosion, trying to see what had happened and maybe defend their homes and families. A few arrows and stones came towards me, causing my ring to near-instantaneously unfold into a weird backpack-like device that placed itself on my back and surrounded me with a purple glow. The projectiles hit my new invincibility shield and fell to the ground limply.

I calmly walked through the carnage. I was heading back a kilometer south, back to the cape. I was going to extrude a larger aircraft, bring

the nanofactory a few hundred miles away, and wait out the last two weeks of exile far away from this mob.

The ground started to shake. I realized the explosion had ended long ago, yet its deafening roar had not subsided.

I looked back to the town square and my blood turned cold. In the center of the blast radius, where not even dust should have remained, there was Lachlan's skull, set in the biggest rictus grin I had ever seen.

I raised the matter disruptor and fired another shot. The skull disintegrated. But Cheshire Cat-like, somehow the grin remained, even larger than before, a smile without a substrate.

This was bad.

I started to run back to the lab. Cracks opened in the ground around me. The roar became worse. Was it just me, or was the sea getting closer?

Metaphorical nukes. A nuke was at the most basic level a chain reaction. Neutron produces energy plus neutron. That neutron produces energy plus neutron. *That* neutron and so on. You end up with a *lot* of energy.

I could see the remains of the looted lab now in front of me. It was on its elevated headland reaching into the sea, and I was afraid the rising water was going to cut it off and turn it into an island before I could get to it.

Sound drove chemical reactions in this world. Anything that could create sound had the potential to be a chain reaction if the reactants were common enough. You could get most of the letters of "sound" from...oh, that wasn't good.

The cracks in the GROUND got bigger as the low-lying GROUND started to sink further beneath the waves.

I stared back at the village. It was almost entirely underwater now. Above it was Lachlan's disembodied grin, now the size of a skyscraper, hanging in the sky.

Sound, ground. Grin. Sin. There. I had it. GROUND + SIN = SOUND + GRIN. The nuke. The ground was essentially limitless until the world was destroyed. The more ground was destroyed, the more people died,

the more villages sunk under the waves. A sin. A reaction that created its own reactants. And sound. Created its own reactants and its own catalyst. Leaving nothing but Lachlan's gigantic triumphant grin, hanging in the sky over the world he was destroying.

I groaned as a crack in the ground took the aircraft on its field. It teetered for a second, then fell into the onrushing waves. I ran through ankle deep water and at last reached the top of the headland. There was just a small area of land left, on the highest ground of the cape, with our two little partially-smashed huts and the bulky dented aluminum nanofactory.

"Extrude boat!" I commanded the nanofactory.

"Extruding boat," said the display. "Estimated creation time with material on hand, two hours."

"Cancel! Cancel cancel cancel!" I shouted, but the factory had gotten into its extrusion mode and wasn't listening.

I ran into my hut. Most of my stuff was still broken. There was nothing that looked like a good flotation device, unless you counted my mattress. My reaction apparatus, my parasonic ray, and a few doodads.

I grabbed the ray gun and ran outside. Even on the high ground, there were wavelets lapping at my shoes. I had about a minute before I drowned.

"Okay," I said to myself. "Time to figure something out. Time to create a boat." And there was only one good reactant on hand.

OCEAN + ...no, that wouldn't work. SEA + ...that was even worse. WATER + ... I might be able to use water if I let the reaction consume my bones... $\text{WATER} + \text{BONE} = \text{BOAT} + \text{NEWER}$  ... no, even with the parasonic ray I'd never be able to catalyze a reaction that made a comparative adjective of all things. Maybe if I had an hour to think of some useful intermediates.

Okay, back up. You don't need a boat. You can use a ship. Ship is...

My brain was in panic mode. It didn't want to anagram SHIP. What it wanted was escape.

The cape! The cape could provide escape! The cape and the sea! The two things I had! And my parasonic gun was just strong enough to let

me synthesize abstractions. I just needed somewhere to put that extra A.

WATER + A = AWARE + T. No, Nature abhors non-words, T won't work. WATER + A = RAW TEA. No, adjectives took forever. WAR TEA? I wasn't sure what would happen if I caused a war at this point, but I bet it wouldn't be good.

A wave rushed over me and I rose to the top sputtering and gasping. I still had the parasonic ray. The water had almost covered the huts now. Borne on the receding wave came Lachlan's stupid piles of IQ tests, now soaked.

CAPE + TEST = ESCAPE + 2\*T

On the one hand, Nature abhorred non-words. On the other hand, I couldn't swim and was about to drown. I concentrated REALLY hard on the reaction, turned the parasonic ray to its highest setting, and shot a beam of sound and strobe light and repetition of the name "Adwell!" at the pile of tests and the rocky cape below.

Nothing happened.

The LOW CHARGE light began to flash on my parasonic ray.

It had been a stupid, desperate gambit. I'd already known I didn't have enough energy to do a reaction that created non-words, didn't know if that was even possible with *any* energy, and I had just drained my parasonic ray of almost all its charge I had made a terrible error.

"Error!" I shouted. "That's it! Adwell! Error!"

CAPE + TEST + 2\*ERROR = ESCAPE + 2\*TERROR

As I fell under the waves, with my last breath and last bit of charge I fired off the parasonic ray one last time.

*It's not working* I thought to myself. *It's not working and I'm going to die, lost under the sea, dead forever.* I spent half a minute just thrashing about in terror before I realized *that meant it was working.*

The water was receding! A bubble of air was spreading away from me in all directions as the water was consumed! I was saved! Still terrified, but saved!

...then the water started closing in on me again. I didn't know what was happening. I'd done it, hadn't I? Succeeded in creating a reaction that would get me out?

Success! That was the problem! If I had succeeded in creating a reaction, then firing the parasonic ray hadn't been an error. The reaction couldn't take place. The water closed in on me again. I was going to die.

The water started to recede. If the success of the reaction prevented me from having made an error, then the reaction wouldn't work, and starting the reaction was an error, and so the reaction could take place. All this I saw clearly, as in a dream, from within my bubble of air.

The air bubble under the rising seas (sinking ground?) reached a size of about twenty meters, large enough to cover the cape and the two huts and the nanofactory, and then stopped, occasionally shrinking a little or growing a little, always seething, starting to burn with a weird energy.

From within the anglophysical terror clouding my mind, I recognized the problem as a novel version of the Epimenides paradox of self-reference, implemented on a physical substrate. If my initiation of the anglophysical reaction had been an ERROR, then I would ESCAPE, and it hadn't been an ERROR after all. But if my initiation of the reaction had not been an ERROR, then I would not ESCAPE, and in fact it *would* have been an ERROR.

I had a vague memory that I had once discussed Russell's Paradox with Dr. Adwell. I wished I could have remembered what he said.

The interface between air and water became turbulent, started to glow. I saw fantastic images projected upon it, weird fractal geometries, strange supersensory stimuli that somehow reminded me of Lovecraft's references to the beckoning piping from the void behind space. All the while the TERROR grew, and the bubble began to vacillate wildly.

Then there was a great pop, and I thought for a second my air bubble had popped, but more correctly *everything* had popped, and for a second the things that were nothing like piping sounds became unbearable. Then I found myself lying, still terrified, on the floor of the translation chamber of our laboratory, the very same place where I had entered Adwellia almost four months before.

VII.

When I had recovered my senses and debriefed my colleagues, I devised three theories for what had happened there, on the cape.

First, that my reaction had been successful beyond my wildest dreams, the paradox had resolved in my favor, and I had ESCAPED not only to firm ground but to my own home dimension.

Second, that the paradox had been so confusing and unbearable for poor Adwell that he had expelled me from his consciousness, like a man brushing a bug off his skin, and having been kicked from his world I naturally defaulted to my own.

And third, that implementing a paradox on a physical substrate was *really, really bad* and I had destroyed Adwellia.

This last possibility ought in theory to be testable, but I was informed upon my return that the budget was tight this year and that the necessary supercomputing resources to search for Adwellia will not be available for some time.

I have been assigned to another project, and although my superiors have thanked me for my work in Adwellia, I am certain they do not believe a word of my report and have written the entire expedition – and perhaps their decision in hiring me – off as a loss. In their place I would not do otherwise.

But from your writings I gather you are a man of unusual intellect, and some of your speculations come uncomfortably close to the truth. I do not know whether you have pursued your interest in Berkeleyan idealism further, but if you are so gracious as to believe my story or at least keep an open mind, I would be interested in further correspondence with you about the implications of anglophysics for future imaged worlds and how the consistency of such images might be assured against paradoxes of self-reference and other threats to their integrity.

Yours sincerely,  
Dr. Omar Reyes, University of \_\_\_\_\_

PS: I hope you will be understanding when I say that I wish to restrict my future work in the imaged world field to a purely theoretical level.

[EDIT: I apologize to those who have read [\*Universal Fire\*](#) for this story. As

*a peace offering, please accept this lovely lampshade.]*

*[EDIT 2: HPMORPodcast has recorded [an audio version.](#)]*