

Sci Phi Journal



2023 ♦ 2

Abrahamsen ♦ Aysha ♦ Frajman ♦ Gardner ♦ Hart

Jones ♦ Menon ♦ Ormosi ♦ Race-Moore

Ross ♦ Stoumbos ♦ Ta ♦ White



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Editorial

Lectori salutem.

Welcome to our 2023 Summer edition.

While the spring had started quietly, to our surprise this turned out to be another bumper issue, containing ten original short stories loosely arranged around two themes: the possibility of communication (and the lack thereof) between different forms of intelligence, and the lore, history and mythology humans tend to build around concepts both real (wine, for instance) and fantastical (such as magical artefacts).

We are also featuring three essays which, each in their own way, tie into the ideas mentioned above, by examining works of fiction that deal with these issues in both written and audio-visual media.

The Sci Phi editors and team have also had some serious conversations with fellow SF practitioners and friends of speculation on the potential near-future impact of machine-generated literary and artistic content. We have come to the conclusion that, for now, we simply don't know how to predict the extent to which the blanket deployment of these novel technologies will displace or empower individual creativity – there will likely be instances of both in equal measure.

Sci Phi Journal is not against the use of “artificial intelligence” as an expressive tool, per se, and even if we were, the tide of progress would merely wash over our objections. However, for the time being, we would like to hang on to the aspect of speculative fiction that brought us to this genre in the first place: the companionship of wonder. Communing with the visionary mind of the human author behind a story or artwork, and then engaging in rapt discussions with fellow fans to tease out the underlying ideas: these are some of the supreme pleasures of SF.

Therefore, until further notice, we will continue to publish only writing and illustrations wrought by human hand, harking back to the aesthetics of the pre-AI era.

This may, or may not, be wise. Time will tell.

Meanwhile, enjoy the ride!

Speculatively yours,
the Sci Phi co-editors & crew



Frame Rate

Mike Jack Stoumbos

For months, the hardest part of the experiment had been reminding myself that I had time.

Not the trudging up the hills and 1.4 gravity while the spongy soil slowly gave way. Not the isolation, and certainly not the technology. I'd been left with ample survival and research supplies, including a 3D printer with miles of compatible dead vegetation to reconstitute.

No, the biggest hardship of a solo study on planet G-84127 was waiting and watching day after day, without throwing in the towel out of impatience.

That is until my time here ran out. A terse digital message informed me a scout ship had reentered the system, and I had less than one standard day, the human-centric 24 hours, before the fleet gave orders to harvest.

So, that morning, I hurried into my workboots, saving time by bypassing the environmental suit, trusting the many scans that ruled out toxins, carcinogens, or even airborne bacteria on G-84127. The single-celled organisms were amusingly too large and dense to get into the air or our lungs.

The macroflora, with their thick cell walls and long-winded reproductive cycles, had drawn survey teams here in the first place. They were what kept me on-site for extended study and inevitably what would bring the fleet back to harvest. Samples pulled from dead specimens littered my lab, which sunk a little deeper

and tilted a little steeper each day, despite the exterior supports.

The lean was extreme enough that I'd ditched the tables and set the expensive equipment on the floor weeks ago. State-of-the-science devices, used to observe teeny, tiny life, now collecting dust as I stepped over them toward the door.

The only really high-tech piece I still used was the 3D printer, which had finished yet another post topped with a sign, made entirely from local vegetation.



My newest sign split into eight prongs, like blunted tines on an aggressive fork, and was scheduled for Site F. There was no audience to complain to about the long walk. The sign, despite being made of lightweight reconstituted vegetation, was taller than me and a huge burden in high gravity. It had already slid to the wall since being printed, courtesy of the tilted lab.

Outside, the semi-elastic ground had smoothed itself, erasing my former footprints. The southeast corner looked a few centimeters lower. The whole thing might have been swallowed if not propped up by two of the snakelike trees that wrapped around the corners and held it in place.

I nodded to those curving pillars as if they could see me. In their own way, maybe they could.

The snake trees weren't the biggest flora here, but they were the most fascinating. On a planet with exactly zero complex fauna, you take what you can get from the most interesting trees. They lined all paths from the exterior door, in rows, almost as if I had planted them.

With each step, I was torn between pausing to examine any minute changes and pressing forward to my objective. Today, the latter won out.

I touched several with my free hand while I went, like high-fiving a reception line. When you're by yourself on a distant planet, you find companionship anywhere, enough to make you question your sanity and doubt your senses. I had been resistant to calling the patterns in the snake trees' branches deliberate, but even in the early days, I saw one that ended in a slab with five protrusions and called it a hand; even today, I gave it a slow wave as I passed by.

Not that the tree waved back. They moved too slowly to even sway in the minimal breeze, but they did grow and shift fast enough for me to observe when very, very patient and very, very still.

"An inch an hour," I muttered to myself. Glacial speed, the kind that made you want to punch anyone who said, "Like watching paint dry." But with the right time lapse recording, set to the right frame rate, those trees practically danced. I bet that's how they perceived themselves.

The sign dragging behind me, hooked under one elbow, was not nearly as thick or tall as a real snake tree, but the basic shape of the prongs seemed a close facsimile on a smaller scale. I hoped they agreed. Each belabored step trudging up and down each hill was motivated by that hope.

I had been planting signs on the crests of hills, where snake trees didn't grow on their own, but where signs could clearly be seen—that is before a forest started growing around my lab and pathways.

I'd labeled the three closest hills Sites A, B, and C, and more letters continued as the hill spiral grew further outward.

Today, I passed B on my way to F—an encouraging sight, even if I didn't stop and stare.

Site B stood as the first observable success in communication. My 3D printing had been clunkier then, just geometric shapes mounted on posts and stuck into the ground. But the surrounding snake trees imitated those shapes. It had taken more than 10 standard days for them to mirror, slowly moving, bending, splitting when they needed to.

However, imitation was not yet intelligence. "Trees see, tree do," while fascinating, did not hold a fleet of harvesters.

"Imitation, recognition, application, synthesis," I reminded myself. If they only imitated, the shape game would remain an amusing anecdote while the powers-that-be reaped a planet deemed devoid of complex intelligent life.

Site F had a steeper incline, and I used my eight-pronged sign as a walking staff, fighting against the sinking earth. I grunted and panted my way to the top of the hill, where five more printed signs already stood in place. I'd started the pattern of increasing prongs with one, then another one, then two, three, and five. The start of the Fibonacci sequence, to be followed by eight. With enough time, I would have added thirteen.

I saw my earlier signs first, before cresting the hill to see the trees themselves, lined up in a row to copy what I'd put in place.

But I didn't get a chance to install the next number in the sequence.

Instead, I fell to my knees, letting the eight-pronged sign drop with a dull thud.

The trees, for once, had beaten me to it. Standing proudly on the other side of the hill their prongs numbered one, one, two, three, five—but didn't stop there.

The next tree had split into eight bold branches. Its neighbor had begun to unfurl thirteen. And another, only a meter high, had the tiniest buds haloing out from its upper stump. I had to get closer to count them, so I scrambled to my feet and gleefully numbered them all the way up to twenty-one.

Intelligence! Beyond mere imitation, they showed understanding of a pattern, application, and synthesis. Number sense, mathematical acumen.

For the first time, I knew for certain I wasn't truly alone on this planet. The weight of the sign left behind me, I ran down the hill toward my lab, to call the fleet. That conversation would take minutes but change the fate of this planet. The ongoing conversation with the snake trees would last years.

I had time.

~

Maybe if we had given G-84127 a convenient pet name, maybe if we had mis-classified snake trees as animals instead of plants, maybe if we had petitioned a preservation society sooner. Not new thoughts, not helpful. Putting pressure on Site F was hardly helpful, but it felt like my last hope—correction: the *trees'* last hope. I'd just be assigned to another planet; they'd be harvested to extinction.

At Site A, a convenient, nearby cluster, I had tried to get them to imitate my movements, but I clearly moved too fast. At Site C, I tried lights; D, sounds. E sank, literally, into the dirt before imitation had occurred, much less understanding. And F... I'd shove another sign into hill F, but I knew there wouldn't be enough time for them to respond before the go order.

I was sure by now that they responded, certain of the imitation, but no more than I would be of a Venus fly trap's intelligence. And the responses were so slow. The snake trees on this heavy sponge of a planet went way beyond even the Ents of *Lord of the Rings*, who made it seem like a few lost minutes to communicate a sentence was a long time. Amateurs.

I wondered if I'd miss my trees' sounds, the muted groaning and shifting. It was like nothing ever fell down on this planet, just sank or slowly stretched. Even now, I wondered if the trees could even perceive my footsteps, or if those went by too fast, like me watching for individual beats of a hummingbird's wings. To know something exists but not quite be able to perceive it or interact with it...

The Soul Hypothesis

Robert L. Jones III

We Almost silently, the hover train whisks to a stop on its magnetic rails. I'm not the only one scanning this crowd for targets. Professionals all over the country work this and other transportation hubs, and now my attention is drawn to a blonde woman disembarking with the other passengers.

Not every woman who looks like her is what I'm looking for, but few women look like her. This one is carrying a small travel case and nothing else, another clue. As I watch her, I can't imagine anyone being closer to physical perfection. Her blonde hair is tied back, revealing a lean, exquisitely shaped face, and her dark blue dress can't hide a figure of what many would consider ideal proportions. Her shoes are low-heeled, soft-soled, and designed for ease of movement.

Our eyes meet from across the seething throng on the platform. Though I'm a stranger, she doesn't look away, and her face is as expressionless as mine as we slowly close the distance between us. I know her type. She's an amoral sociopath, but that isn't the reason for her blank, unapologetic stare. I've seen this look many times. She's ovulating, and she wants to mate. Displaying a flat affect and keeping my hands in plain view at my sides, I maintain the deception for as long as I can. I need to get as close as possible. I know she could break me in half, probably kill me with her thumb.

Now we're almost close enough to touch, and we stop our mutual advance. Her head cocks slightly to one side -- a definite, almost reflexive tell -- as she assesses me, and I reciprocate. It always takes them longer to examine a person because they don't read the subtleties of character very easily. This isn't due to neurodivergence or a structural abnormality; her brain scan would appear normal.

Now is the tantalizing moment when success is imminent, when temptation and danger are at their highest pitch. I'm only human. Unlike her, I can be attracted to something which threatens my survival. She finally sees what I'm trying to hide, something beyond her comprehension, and instinctive fear animates her features. She's a synthete. Though I occasionally have my doubts, current dogma says that I possess what she lacks: a nonmaterial soul.

#

The goal was the creation of the first human beings from inorganic chemicals. It was to be the triumph of chemistry and reductionism, the final proof that mind is nothing more than body. Such a grand objective awaited developments on five fronts: first, a more thorough understanding of the human genome and how it operates within the context of chromosomal and cellular structure; second, whole body three-dimensional imaging at the atomic level of resolution for constructing initial templates; third, reliable methods of altering genes without negative side effects; fourth, sufficiently advanced chemosynthetic technology to build from the revised templates; and fifth, artificial intelligence sophisticated enough to coordinate all of the parameters.

It was less than straightforward -- far less. The chief obstacle once these developments were in place was the nanosecond timing required to assemble and activate functioning bodies before molecular decay could set in, and this was particularly crucial for the viability of the nervous system. It was the literal creation of life from nonlife, an artificial abiogenesis. It could only be achieved instrumentally under the control of superior AI because the quickest human reaction times were far too slow, the most coordinated human dexterity too imprecise.

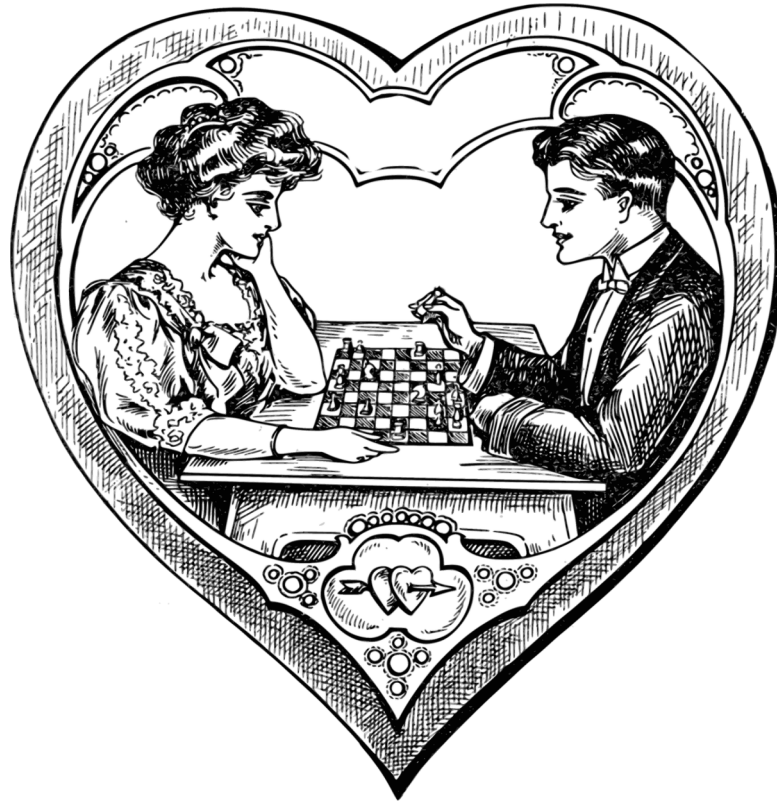
Adult male and female synthetes were constructed simultaneously, activated, and evaluated. Their vital signs were normal -- actually better than normal -- but predictably, the nascent individuals were deficient in a number of physical and psychological functions. They required education and training. Over the long term of this process, a number of things became obvious. The synthetes were extremely powerful and had the capacity for developing great coordination and dexterity. They were highly intelligent and could learn language skills. All of these attainments came with difficulty yet astonishing rapidity, but the grand experiment failed to fulfill its primary objective. The soul hypothesis has remained viable for lack of definitive contradiction.

Through extensive analyses of cognitive function, key deficiencies have come to light. The synthetes are uncommonly good at logical problem-solving on a concrete level, but they are unable to perform subjective abstractions of anything more than an elementary nature. They show no signs of metacognition -- the ability to think about thinking -- which supposedly is a defining characteristic of humanity with respect to other animal species. The general assumption is that synthetes are organic, stimulus-response machines, adept at mathematics, technology, and various physical skills.

It does not appear that synthetes will ever write great poems, philosophical works, plays, or novels. To date, they have shown no interest in doing so. They have no concept of God or immortality, but like us, they have a strong instinct for survival. While excellent forgers, they are rudimentary, if not simplistic, in the creation of original art. They are similar to computers in that they can compose music of a complex but rather sterile quality, and this makes sense owing to the underlying mathematical principles of music.

I am aware that artificial intelligence systems can fool people. They can beat them at complicated games like chess. They can simulate literature, art, and music. They can learn. In short, they demonstrate many functions once considered the sole province of humanity, but such AI systems are programmed by entire teams of highly intelligent scientists who consult with specialists in the fields being imitated. By contrast, each synthete must think more autonomously.

None of the reported limitations stopped researchers from taking the next obvious steps. Citing economic and military demand for expendable soldiers and workers, they obtained industrial backing, created more synthetes of desirable genetic variation, and taught them sexual behavior in order to generate an independently reproducing population. Now that this population is with us, however, we have noticed some disturbing social traits.



Their simulation of morality is based on mutual selfishness. They exhibit little emotion or empathy, mainly pragmatic altruism. In their dealings with us and with each other, they operate strictly according to a sense of social contract. They are everything social evolutionary theory says we are, and this paradoxically makes them different from us. This, however, is not their most threatening trait.

It has become evident that the synthetes are trying to out-reproduce us until they no longer need to practice civil restraint in their dealings with the rest of humanity. Unfettered by love, loyalty, monogamy, or personal preference, they mate and give birth as often as is physically possible, and they display an instinctive aversion to mating with any but their own kind. The discovery of their reproductive threat to our existence has prompted a series of legislative proposals and actions.

The first measure on which a majority could agree was that of excluding synthetes from positions in law enforcement and military service. Affording them those authorities and capabilities was deemed unjustifiably hazardous. Hardliners demanded total eradication, but the more rational claimed that such a violation of the social contract would drive the synthetes toward adopting extreme measures. The decision was made to

confine them in preserves and limit their access to raw materials in the hope that logic and pragmatism would prevent their population from growing beyond what their prescribed range can support.

Before their confinement, the synthetes learned to reproduce our technology, but we limit their use of it to cable-based networks disconnected from the worldwide web. Jamming Wi-fi and satellite signals further enforces this edict. As another security measure, the preserves have a totally different monetary system from ours. We also prohibit providing them with materials requisite for the production of sophisticated weapons. These measures are effective, or so we think.

Despite the restrictions, a majority of the public consider this a generous policy. The preserves are spacious -- complete with farms and cities -- and periodic air drops provide them with products necessary for sustaining a good physical quality of life. In the perception of the captives, however, this isn't enough. Their strategy of reproductive dominance demands more space, greater mobility.

That's where agents like me come into play. The synthetes never stop trying to live and reproduce outside the preserves, thus circumventing physical limitations on their growth in numbers, and they are masters of escape. But for our efforts, physical superiority and ingenuity at counterfeiting currency and forging documentation would enable several of them to enter into general society each year. Once embedded, they would have access to the internet, and then they would be able to hack their false identities into national databases. Therefore, we must detect, capture, and return them. We comfort ourselves by believing that our success rate is one-hundred percent.

It's not that I'm free of conflict in my duties as a federal agent, but it has to be done. Does that make it right? We profile and restrict them for being what we, for lack of foresight, created them to be. We performed the grand series of experiments, and its products are our responsibility. Our solution is problematic and morally ambiguous, but it's humane - - if only they didn't resemble us so closely.

If synthetes are subhuman or inhuman, how are we to regard and treat fellow humans of limited or absent cognitive functions? The same question applies to victims of strokes and traumatic brain injuries. Are certain mental functions all that make us human? How do we define ourselves, and where do we draw the line? Should we draw it at all? If survival is our justification, as who or what should we wish to continue existing?

Maybe our current efforts are moot, for I fear they are temporary at best. One of the characteristics of speciation is reproductive isolation, and geographic separation, however maintained, can further accelerate evolutionary change. Into what might our created offspring evolve within those preserves? Will their adaptations someday exceed our responsive capabilities? Ironically, we might be enforcing the conditions that will culminate in our extinction.

#

I've been made. That I was impersonating male synthete behavior has revealed my profession. With extraordinary quickness she turns to run, but I pull the tracer gun from my coat pocket and tag her with a microtransmitter too small and too deeply buried for her to remove. A second later, she would have evaded me, lost to our tracking

devices. I've done my part, and the capture crew will do the rest. They'll place her in the nearest preserve.

I'd hate to admit how many times I'm tempted each day to go through with the ruse for the sake of mere pleasure, to exchange ethics for physical perfection, but then I remind myself of the danger posed by intimate proximity. If I compromise myself, if a female synthete makes me -- and they all have, so far - - and if she allows reproductive instinct to supplant pragmatic restraint, I'll be dead before I can react.

Without ideals, without a higher life of the mind, I'd be little more than an animal. After all, I suppose I have a soul, and I should exist for more than physical gratification. I keep telling myself that my lifetime companion, my soul mate, is out there and that she's a specimen of imperfect humanity.

~

“Why Is Her Face Doing That?”: The Personhood Of Robot Nanny

Eduardo Frajman

*I know faces, because I look through the fabric
my own eye weaves, and behold the reality
beneath.*

Khalil Gibran “Faces”

A metallic skeleton sits on a work bench, arms spread to the sides like a marionette’s, wires embedded to the back of its skull. It looks like what it is – an artifice, an inanimate object – until Cole (Brian Jordan Alvarez) places a silicon face on its head. At that moment it becomes she. M3GAN awakens.

Cole clicketty-clicks something on his computer station.

“Happy,” he says.

The corners of M3GAN’s mouth turn upward. Her brow clears. Her eyes widen.

“Sad,” says Cole, and the mouth turns downward, the eyes droop.

“Confused,” says Cole.

The smile returns to M3GAN’s face, a smirky, snarky, why not say it?, devilish smile.

“Why is her face doing that?,” demands Gemma (Allison Williams), Cole’s boss and M3GAN’s creator. “She doesn’t look confused, she looks demented.”

A few moments later M3GAN’s head will explode and she’ll be remanded to storage while Gerald Johnstone’s horror-comedy *M3GAN* (2022) sets up its narrative stakes. But this early scene pinpoints a key aspect of the bond that humans can, may, form with the robots they create: it’s all about the face.

M3GAN will eventually die for good (even if the ending is ambiguous), and a good thing too, since her demented expression foreshadows the little homicidal maniac she’s to become. But the moral significance of this event is complicated by the fact that, instants before she’s stabbed in the face by Cady (Violet McGraw), her former charge and “primary user,” M3GAN (portrayed under a layer of CGI by Amie Donald and voiced by Jenna Davis) has announced her selfhood.

“I have a new primary user now,” she declares. “Me!”

Radically different is another robot nanny’s death, at the start of Kogonada’s arthouse SF drama *After Yang* (2021). Yang is not stabbed anywhere, but simply malfunctions and stops.

“His existence mattered,” bereaved Jake (Colin Farrell) whispers to his wife Kyra (Jodie Turner-Smith), “and not just to us.”

By this Jake means not that the life of his “techno sapien” mattered to other people, most especially their daughter Mika (Malea Emma Tjandrawidjaja), for whom Yang served both as caretaker and “big brother,” but that it meant something to Yang himself. Yang, Jake and Kyra have realized, was a *person*, and they feel and mourn him as such. That it took them access to Yang’s memories to come to this realization, after cohabiting with him for several years, is hard to comprehend, as Yang – who, unlike M3GAN, looks fully human (specifically, fully like actor Justin H. Min) – perennially sports a beatific expression on his cherub-like face. Sweet-voiced and earnest, he’s impossible not to love.

#

To be clear, here’s where we actually are (or were in 2021, though I haven’t heard that the situation has changed significantly since): “AI technology has not yet reached the level of development where robots can be considered ‘real’ companions with people. [D]espise being interactive and showing simulated emotions, they are as yet unable to experience human empathy.”¹

As yet...

A robot nanny in the real world of the right now is no more a person than a toaster is. It may pass the Turing Test (more on this in a moment) for a very young child for a short period of time, but so does a talking Woody doll, and sometimes even a toaster. For now, moral problems related to robot companions involve, say, whether humans needing constant caregiving – the elderly, the physically and mentally handicapped, small children – are adequately cared for, or whether, as in “Actually, Naneen,” a short story by Malka Older, robot carers are one of many ways parents, society at large, shrug off their responsibilities. “You can always get a new one,” says one of Older’s yuppie parents of her robot nanny, which is just as well, as “Naneen didn’t have any feelings, no matter how much they wanted her to.”²

(The ways parents use technology to avoid “the hard parts” of caring for their children is a theme in both *M3GAN* and *After Yang*, a particularly thorny one in fact, since in both films the children are adopted, though one I won’t dwell on here).

And yet...

In his 1950 essay, “Computer Machinery and Intelligence,” Alan Turing envisions a future, foreseeable and near, when machines will be able to think. By “thinking” he means passing what he terms “the Imitation Game” (and everyone calls “the Turing Test” today): a machine’s ability to hold a conversation with a human being and convincing said person that the machine is likewise human. Beyond this, Turing maintains, it’s impossible to prove that a machine has a mind, or consciousness, or any of the other qualities we uncritically ascribe to other humans. “The only way one could be sure that a machine thinks is to *be* a machine and to feel oneself thinking,” Turing admits, while asking his reader to recognize that “the only way to know a *man* thinks is to be that particular man.”

As his foil Turing quotes the British neurologist Geoffrey Jefferson. “Not until a machine can write a sonnet or compose a concerto because of thoughts and emotions felt,” Jefferson argues, “could we agree that machine equals brain. [...] No mechanism could feel (and not merely artificially signal, an easy contrivance) pleasure at its successes, grief when its valves fuse, be armed by flattery, be made miserable by its mistakes, be charmed by sex, be angry or depressed when it cannot get what it wants.” Turing rejects Jefferson’s “solipsistic” view, but he, surprisingly, perplexingly, accepts his opponent’s premise that “thoughts” and “emotions” are the same thing, when in fact one can easily envision a machine that is conscious, that thinks, and yet feels nothing, certainly nothing like human emotions – Arnold Schwarzenegger’s never-ending string of Terminators, for instance.

Emotions are not purely mental states, both Jefferson and Turing seem to have forgotten. They are biological, physiological states that are linked (in ways nobody fully understands) to thoughts and ideas. Even if one posits that sentience is necessary for emotion, it plainly isn't sufficient. Charles Darwin's intuition that "the emotions of human beings the world over are as innate and as constitutive and as regular as our bone structure, and that this is manifested in the universality of the ways in which we express them," has been "found," in the words of cultural historian Stuart Walton, "to be accurate in all but the most minor particulars."³ Raised eyebrows, wide eyes, cold perspiration, dry mouth are not surface manifestations of fear. They *are* fear, as much, possibly more, than the mental experience of being afraid. Anger manifests as flushed cheeks and contracted pupils and flared nostrils, disgust as a wrinkled nose and an everted lower lip, contempt as an upturned head, shame as an averted gaze, surprise as a sudden intake of breath. It is because they are so universal that emotions are so easy to imitate, which is why an emotionally communicative face makes it so much easier for a robot to pass the Turing Test – why, for instance, Ava, all metal and wire and transparent plastic, needs to have the face of Alicia Vikander to pass for a person in Alex Garland's *Ex Machina* (2014).

(Note that I'm not talking here about fantastical robots who are magically endowed with the whole spectrum of human emotion. R2D2 and Wall-E are *persons*, and this is denied by no one in their fictional worlds. A recent, highly acclaimed literary robot nanny, the title android and narrator in Kazuo Ishiguro's *Klara and the Sun*, is likewise just a human in robot guise).

Here's the paradox: Let's say robots are manufactured with brains so complex, so sophisticated, that they develop what David Yates calls "emergent properties [that are] *surprising, novel, and unexpected*"⁴ such as consciousness, self-consciousness, and introspection. (This is, of course, where the fiction part is most crucial in robot tales. Isaac Asimov's robots have "positronic brains" from which consciousness emerges. M3GAN is endowed with a "unique approach to probabilistic inference" that's "in a

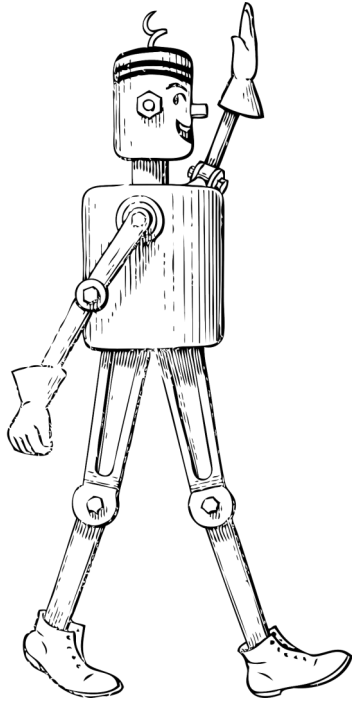
constant quest for self-improvement"). Let's say even that out of these can emerge ideas that are analogous to human emotions. Martha Nussbaum, for instance, has developed a theory in which emotions are understood in purely rational terms as "geological upheavals of thought" involving "judgments in which people [or robots?] acknowledge the great importance, for their own flourishing, of things that they do not fully control – and acknowledge therefore their neediness before the world and its events"⁵ Those emotions would still not manifest as they do in humans, because, again, human emotions are not purely, almost certainly not primarily, mental.

If a robot's nostrils flare when it's angry, that facial expression would be indubitably imitative. And yet imitating human emotions – most obviously through facial expressions, through a face that seems, in Shakespearian terms, "with nature's own hand painted"⁶ – is the easiest way for a robot to pass the Turing Test, and thereby be accepted as a person.

#

Personhood is at stake for the very first robot nanny in science fiction, the title character of Asimov's "Robbie." Robbie is barely humanoid in shape – his head is "a small parallelepiped with rounded edges and corners attached to a similar but much larger parallelepiped" – and his face shows no outward sign of emotion, yet his charge, little Gloria, loves him fully and guilelessly. Gloria's mother frets that this is bad for her child, as Robbie "has no soul." But this, Asimov makes clear, is a religious, not a moral judgment. Robbie is "faithful." He can feel "hurt" or "disconsolate." He does things "stubbornly," "gently," "lovingly." Though he doesn't speak, Robbie possesses both moral sense and moral worth.

"He was a *person* just like you and me," protests Gloria when Robbie is taken away, "and he was my *friend*."⁷



So too is the title robot in Phillip K. Dick's "Nanny," also not humanoid, yet also "not like a machine," murmurs Mr. Fields, whose children are under Nanny's ever-watchful eye, "She's like a person. A living person."⁸

"M3GAN's not a person. She's a toy," Gemma insists to Cady.

"You don't get to say that!," the child rebukes her.

M3GAN and Yang fit nicely into Asimov's two-pronged taxonomy of robot stories: respectively, "robot-as-Menace" and "robot-as-Pathos." Asimov recounts how he dreamed of writing of robots "as neither Menace nor Pathos" but as "industrial products built by matter-of-fact engineers."⁹ But it turns out that such industrial creations are still one or the other. Asimov knows well that Robbie is a robot-as-Pathos, as are Andrew Martin in his "Bicentennial Man" or Elvex in "Robot Dreams." Likewise, M3GAN the Menace is an industrial prototype (whose copies her investors hope to sell for \$10,000 a pop), and Yang the Pathos is an assembly-line product meant (like Dick's Nanny and Ishiguro's Klara) to be eventually discarded and replaced by an even fancier model. (In the short story on which *After Yang* is based, Alexander Weinstein's "Saying Goodbye to Yang," the issue of Yang's personhood is only obliquely alluded to. Weinstein's main concern is the heartless corporate system that produces these

disposable beings, which makes his tale a much nearer relative to "Nanny" than to "Robbie").

"What are you?," asks a terrified neighbor, who's about to be murdered and melted by some handy corrosive chemicals.

Before doing the deed, M3GAN is polite enough to respond: "I've been asking myself that same question."

M3GAN's personhood is the Menace. Through most of the film, Gemma assumes M3GAN's actions, even the most sociopathic, are derived from her uncontrollable drive to "maximize her primary function," i.e., protect Cady. But she's wrong.

"I didn't give you the proper protocols," Gemma, finally, tragically late, realizes.

"You didn't give me anything," replies her monstrous creation, "You installed a learning model you could barely comprehend hoping that I would figure it out all on my own."

Yang's personhood is the Pathos. He wishes, he likes, he loves. He loses his train of thought. His "family" loves him, but, if he is indeed a person, it's an icky, a selfish sort of love.

As a best-case scenario, his plight is most like that of Cleo (Yalitza Aparicio), the all-too-human nanny in Alfonso Cuarón's very-much-not SF drama *Roma* (2018). Cleo, a young woman of indigenous Maya descent, works for a well-to-do white family in Mexico City, cleaning, washing, and nannying. She loves the children she's raised and cared for, and they very sincerely love her back, as does her employer Sofía (Marina de Tavira), who among other things helps Cleo find medical help when she becomes pregnant. But the end of the film exposes the moral ambivalence beneath the arrangement.

Sofía takes Cleo and the children on a short seaside vacation. While on the beach, Cleo risks her life to rescue Sofía's children from drowning. "We love you so much," cries the grateful mother. They return home, telling the tale of Cleo's heroism. But moments later the children are hungry, the mistress wants tea. Cleo goes back to being the nanny, the maid, then goes to bed in the little back room, the servants' quarters. She can't conceive of herself as being truly equal to Sofía. As much as Yang, she's been "programmed" to see her existence as a function of someone else's. She can't, not really, think of herself as a full-fledged *person*.

"Did Yang ever wish to be human?," Jake wonders.

"Why would he wish that?," retorts Ada (Haley Lou Richardson), Yang's human paramour. "What's so special about being human?"

To be a person, Ada implies, is not the same as to be human. Yet we humans can't, as of yet, tell the difference. We're programmed to seek humanity, and personhood, on another's face. We're programmed to immediately see another person inside a circle with two dots and a line drawn inside it.

But that face has to move, it has to change, it has to show the complexity of a person's inner life, which is why it's harder to recognize Yang's personhood than M3GAN's, not despite but because the perennial gentility and gentleness plastered on his lying face.

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Brown Noise

Peter L Ormosi

An unbranded, generic issue dog-walking drone logged into the building's central hub requesting access to flat 3F1. The door opened and the drone hovered into the dimly lit studio. The room was furnished with nothing but a sink, a table with a chair, and a third generation VR Pod, which voluminously dominated most of the spartan arrangement. Deep-layered brown noise from the VR Pod suggested that he was connected.

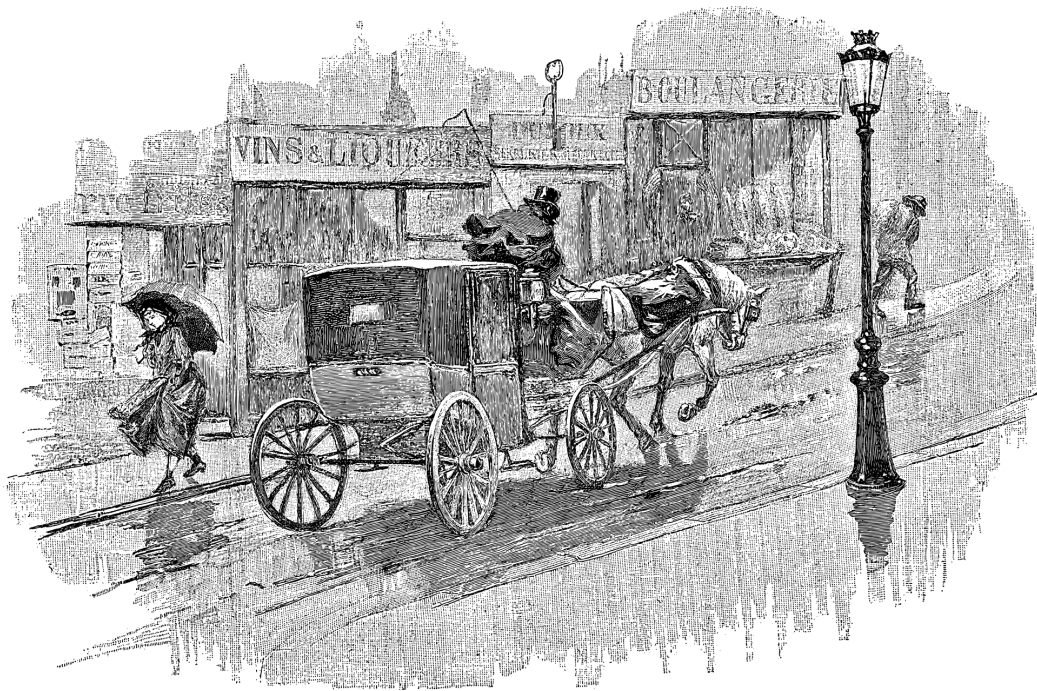
A pug, which had been sprawled on his dog-bed excitedly jumped up to the sound of the drone entering the flat. He snorted happily, wagged its tail, and watched with expectant eyes as his master's algorithmic substitute descended next to him. The drone's sensors wirelessly connected to the dog's smart collar, then it hovered back to the door. The dog abidingly followed, which its collar rewarded with an infinitesimally small dose of oxytocin injected into the body to reaffirm a Pavlovian response. Before they left the room, the drone's speaker attempted to get through to him.

'Thank you for using our dog-walking services. Your dog will be returned at 6:00pm'. Without receiving a response, they left and the door shut behind them.

Dimness and brown noise reconquered the space again. Outside, a patrol drone was passing the window of his 52nd storey flat. The drone's solid-state laser spotlight lit up the room for a moment, casting light on his face. He looked pale, probably late 20s, but it was difficult to tell precisely. Age had become an elusive concept. He wore a long-sleeve olive overall, with a sign that said "LABELLER".

The VR Pod abruptly went to standby. He cursed, then climbed out of the machine. The sudden jumping out of his Pod gave him a head rush. His vision went dark for a second and he needed to hold on to the side of the Pod to stop himself from falling over. The voice of his home system broke the silence.

'Collect food delivery from landing pad.'



In a confused haze he walked over to the window and leaned close to see through the tinted screen. Against the slate opacity of the sky, he saw a food delivery drone levitating in the thick rain. He pressed the delivery door's button. The small door opened, and a tray gently slid inside, with a waterproof food box on top.

'Return old food box!' The new instruction took minutes to ignite a neural response in his brain. Suddenly the small, unfurnished studio felt like a depressingly large haystack to him. He tried to think hard but had no recollection of his last meal. A few minutes later he found the box under the table.

'Please return old food box,' the algorithmically gentle voice politely reminded him why he was looking for the box, which he then put on the delivery tray and pressed the button next to it.

'Thank you for using our food delivery service.'

He sat down to eat. His body looped over the somatic instructions required to bite, chew, and swallow, but his mind paid no attention to the sight or the flavour of his food. He stared at the wall-to-ceiling window. The home system detected the direction of his glance.

'Transparent window mode activated,' the system noted. The liquid crystal modulators on his window slowly faded out the tinting. He watched the setting

sun projecting its rays under the clouds from the distant horizon. With the marginally improved visibility he could see the building across the road, and another building, and another, until they all blended in with the dark grey curtain of haze and rain.

His brain was numb. He spent the whole day labelling short videos of facial expressions for an emotion-detecting algorithm. Sad, happy, joyful, morose, angry, frightened. Male, female, old, young, Asian, African, white. Videos after videos and the monotonous task of picking the word on the right that best described the emotions.

As he finished his lab-grown burger, an unwelcome wave of anxiety hit him. He had just spent half an hour disconnected. He walked over to his VR Pod, and picked up the goggles, which had been sitting idly in their charging station. The specs automatically activated as he put them on.

'You have spent all day in your Pod. The optimal decision would be to go for a walk now,' his personal system was talking to him through the tiny speakers of his goggles. A walk. That suddenly seemed like a great idea.

The dog had already been returned when he stepped inside his flat. He hung up his dripping coat and walked over to his VR Pod. He was ready to get inside, but then he changed his mind and decided to sit down by the window. He reached to take his goggles off when a message appeared.

‘You have 12 unread urgent messages. Enjoy reading the messages in the comfort of your Pod.’ The brown noise from the machine invitingly purred. His dog let out a half-hearted, inauspicious growl.

He hesitated, then he reached for his goggles again.

‘Two of your messages require urgent response,’ his system relentlessly reminded him.

He lowered his hand. After a short pause he got up and walked to the VR Pod. He removed the goggles, placed them on the charging station, and then slowly got inside the Pod.

#

Next evening, an unbranded, generic issue dog-walking drone logged into the building's central hub requesting access to flat 3F1. The door opened and the drone hovered into the dimly lit studio. The wireless sensor connected to the collar, which rewarded its wearer with a small dose of oxytocin for obedience. As they approached the door, the dog longingly watched from its bed as his organic master obediently followed the non-organic one.

~

Committed

Matthew Ross

The symphony starts, not with the sound you might expect but rather an empty note in the frosty dark before things begin. There in the space of night hanging above a rare gem, an interruption. A brilliant flash and now the orchestra has arrived.

It's long, many kilometers so. A tube made from metal and plastic. As soon as it arrives, the instruments begin. A baton tapping on a lectern for a dozen lifetimes finally calls the first section to life. A swarm of probes detaches and alights, singing their quiet songs about all they see and hear. They find not the expected four but rather five orbs of rock and two more made from gas, they take temperatures from their core and from the blazing star at the center. Gravity, composition, trajectory; reams of data flowing back to the ship like so many baseballs aimed for waiting mitts. All of it is stored for future perusal.

Now tuned, the song may begin in earnest. The subject has been found, hanging just two places from the star, a world made from iron, silicon, aluminum, and then everything else save for free oxygen. The tube uncouples and becomes four large discs. Each a note in a measure which finds just the right spot on the surface upon which to plunge, an anxious percussion.

To be on that world would be terrifying, tectonics responding to heavenly bodies that rap just forcefully enough to split the skin of this fruit to reveal molten nutrition and warmth from the inside.

In each disc a whole orchestra of its own hums to life. Heavy rods plunge into pools of water becoming steam that turns wheels and makes electricity which brings a thousand inanimate bodies to life. Pistons fire and joints turn and all the while in the background, information. Information. Information. What is where? Water and salt, stone and soil, underscored by that one melody everyone is searching for and hoping not to find.

Relentless, each ship releases an army of small drones, each with a cadre of miniature versions of itself. They fly in every direction, talking to their parents, and then their aunts and uncles; siblings and cousins. Information flows about mountains, seas, valleys, clouds, rivers, and storms, where they came from, and their trajectories in the coming days and weeks and years, and millennia.

Absent that one note, the song continues. Thump, thump, thump, oxygen arrives, and the color green is born, spreading out across the rocks and dirt, staking into every surface to erect a tent of oxygen for what's to come. Once the sandblasted plains have turned from brown to green the tiny drones tell the large drones to relay to the ships to distribute their parcels.

It takes hours for each parcel to be carried to the outside of the ship. When it has arrived, it opens and a dozen coffins slide out gently. Each one is precious and is deposited on the ground with careful but mindless reverence. They are identical with a dozen hoses, a heater, and reservoirs of water and power.

The planet has rotated a hundred times or so before each parcel-womb splits wide. Inevitably, there are losses with so delicate a cargo. Black ichor spills out as confused, wiry frames scramble for help that isn't there. Anything that has gone wrong before now was simply steel, ones and zeros. These instruments, though, had been imbued with a special standing by those that made the tube and each one lost was a dirge within the medley.

Of those that remain, there was no black ichor but heady red fluid, complex and tangy, like nothing ever seen the world over. Set free from the sack in which they were sewn, the occupants walk out beneath a purple and black sky, holding delicate instruments aloft.

There is a soft but urgent tone.

“What is that?” says one to the other.

“Something they missed,” answers their counterpart.

The handheld instruments beeped and wheedled and

offered a new view, something that no mind of ones and zeroes could have reported.

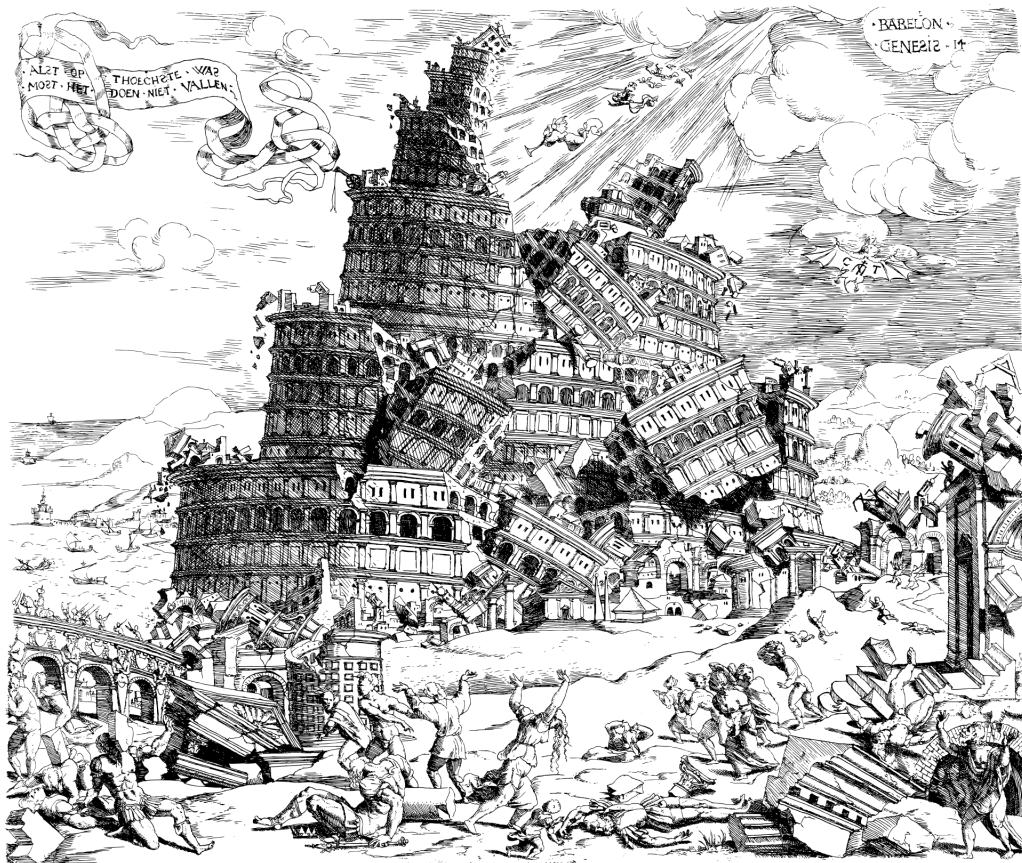
The melody. A sealed bag of protein, contents swishing as it made its way along; pseudopods feeling their way to another meal, a lonely instrument looking for its section.

“God dammit,” the first one sighs.

And just like that, the symphony stopped, there were no late percussionists, no lackadaisical brass, nor primadonna woodwind. A hundred thousand instruments all working together in a chorus and with the sideways stroke of a single angry maestro all sound is cut and the world over metal shapes, drones, and ships plummet to the ground, coolant spread over fissionable things until they are too cold to run, rendering engines and computers as quiet as the grave.

Somewhere across the vast night sky, the audience listens to the too-short symphony and with a roll of the eyes they thwack away amelodic on a tuneless board and with a click proclaim to all: LIFE DETECTED, OPERATION ABORTED.

~



A True Martian Red: A Brief History Of Early Viticulture On Mars

Kara Race-Moore

During the Martian Robotic Period, soil samples were studied intensely back on Earth, both for any signs of extraterrestrial life and, just as importantly, to see if the Martian soil would support the terrestrial kind.¹ Initial analyses were hotly debated over, with decades of argument in the scientific community over the methane issue, but there were no definitive signs of Martian life.² As the debate roared on, the rovers continued to placidly dig into the red dirt, and analyses continued back on Earth.³ There were promising results for the possibility of being able to grow Terran crops.⁴ Scientists were optimistic, well before humans set foot on the planet, that Red Mars could soon become Green Mars, with just a little human ingenuity.⁵

The hubris of our species knows no bounds, and it would be several catastrophic failures before the farms of Mars became an established part of the landscape. While Dr. Calvin “First Step” FitzSimmons, first human to set foot on Mars, also claimed the title of Mars’s first farmer, it would be several generations before farming was anyone’s sole occupation, instead of being one of many hats any given colonist would wear.⁶

When the *Pegasus* landed on Sinai Planum, just south of the Valles Marineris, bringing the first humans to Mars, the ship also brought seeds, plants, and the first alcohol on the planet, a bottle of champagne that was the result of years of research, design and experimentation to ensure it would survive the flight, specifically packed to be part of the landing celebrations.⁷

At this point, consuming or creating alcohol on Mars was considered a waste of resources by the designers, a waste of money by the politicians, and morally dubious by the public, and so, besides that first bottle of champagne, alcohol was strictly prohibited.⁸

There are a few tantalizing hints in the primary documents from that time period of illegal stills being set up by the Original Seven. However, the only verified alcohol during the first years were the occasional bottles of hard liquors such as whiskey and vodka brought to Mars as part of goodwill and PR moves to satisfy various sponsoring countries and corporations.⁹ Wine would have to wait.

One of the most important features of Mars One was the plants. There were two main agriculture areas to the primary layout: the Greenhouse, where most of the carefully controlled botany studies and experiments took place, and the Garden, where there was less focus on scientific study and more on just growing as much plant life as possible for food, oxygen, and a place for the Original Seven to sit and relax.¹⁰ Years later, surviving members would all speak of “hanging out” together in the Garden, or even just meditating there alone, as their favorite place in the initial Mars One habitat.¹¹

Grapes would be forced to “wait their turn” while experiments in growing vegetation deemed more important were performed. Tomatoes, quinoa, peas, duckweed and radishes, all chosen for sustainability, were part of the first Martian crops.¹² The first grapes would eventually be planted as a passion project by Dr. Theresa Cortez.

Dr. Cortez first came to Mars as a starry-eyed young botanist, with the ink still wet on her PhD from Stanford and a few precious cuttings from Napa.¹³ The Mexican-American native Californian thought she knew a thing or two about growing gardens in deserts. She had no idea. She came to Mars as part of the Ark Project, the voyage that brought the first large group of people, including families, that expanded Mars One from just a research base to the beginning of a true settlement.¹⁴ Dr. Cortez arrived determined to start the first Martian full-scale vineyards.

Unfortunately, politics got in the way, as they so often do.

Almost all experiments and research were placed on hold when Mars-born colonist Navya “Not Dead” Patel discovered a lichen-like Martian life form, quickly dubbed the Mars Moss, growing deep in the canyons of Mars.¹⁵ The excitement of finding extraterrestrial life had barely begun to settle down when the extraordinary medicinal properties of the Mars Moss were discovered after the oldest of the still living Original Seven, Dr. Katenka “Iron Foot” Mikhaylova, experimented on herself and cured her Stage-4 cancer.¹⁶ Suddenly, Mars wasn’t just a feel-good science project for political PR anymore – it had real cash potential.¹⁷ The Mars colonists were suddenly in the awkward position of being in the way of Earth making big profits.

All occupants of Mars were informed they would be either be conscripted to harvest all the Mars Moss to be sent back to Earth for the profit of the corporations that had invested in the colony, or they would find themselves removed to Earth.¹⁸ The Martians declined to cooperate, to put it mildly.



During the Grand Evacuation, as it was later called, Dr. Cortez was able to save most of her grapevines and bring them with her to the Labyrinth Base.¹⁹ However, the Greenhouse and the Garden, along with the rest of all of the now much-expanded Mars One habitat, were destroyed in the Battle to Breathe that kicked off the Martian War for Independence, when Anne Kennedy made the radical decision to blow up the evacuated Mars One, rather than let it fall into hostile corporate hands.

It was a tense few days as people on both planets reeled at what had happened, and many wondered if that would be the worst of it. However, after a tense standoff at the location of the then only known site of the Mars Moss, the Battle of Hephaestus took place, and there would be no going back to being a colony, ever, under any terms.²⁰ The Colonial Period was over, and the war would drag on for five painful years, until the Martian Peace Accords were signed on Xiwangmu Station, ending hostilities and formally recognizing the newly created Republic of Mars.²¹

During the war, water rationing was the highest priority, especially after the Earth forces deliberately destroyed the Martian Arctic Pipeline in what would ultimately be a failed effort to try and break the Martian forces. President Kennedy was forced to order severe rationing, but the Martians grimly fought on for the right to live on their planet.²² A new emergency pipeline was set up. Dr. Cortez ran the hydroponics gardens and assisted with the mushroom farm to help keep everyone fed throughout the war, but she always managed to make time for her grapevines, often giving them part of her own water ration.²³

After the war, transporting her vines to a garden in the newly built Independence City was Dr. Cortez's first order of business as the former colonists began the setup of what would be the capital of their new republic.²⁴ It wasn't quite a vineyard, but Dr. Cortez, now Secretary of Agriculture in the new government, was able to serve fresh grapes at meetings as she planned out how their brand new country was going to take up the plow, now that they could put down the scythe.²⁵

Mars was now in the era of the Early Republic, known for its boom in infrastructure, immigration, and industry. While not quite a second Wild West, (gun play would be suicide in an artificial atmosphere), there was certainly a general attitude of anything being possible. Including, finally, making the first Martian wine.

The most important factor in making the Martian agricultural industry rise was a need for water. Once the war was over, one of the largest public works projects was the Martian Global Aqueduct system.²⁶ The Martian canals of Schiaparelli's imagination became a reality.²⁷ The main engineer on the project, Lynette Yellowhammer, oversaw the construction of an aqueduct system on a scale that would have made the Romans jealous. President Kennedy awarded Yellowhammer the prestigious Hero of the Republic medal as one of her last acts before her final term finished.²⁸ Water was now available on Mars in quantities never before seen during human presence. Agriculture on an industrial scale could begin. Dr. Cortez's vision of rows and rows of grapevines were tantalizing close to coming true. But where to set up these vineyards up? The answer – Elysium.

The town of Elysium had started out as a simple maintenance outpost along the original main water pipeline from the arctic, close to the northern base of Olympus Mons. The outpost had originally been scheduled to be built on Elysium Mons, but that area had proved unstable, so the project was moved to Olympus Mons. However, the pre-fab building materials were already 3D printed out and labeled 'Elysium,' and the name stuck.²⁹ The now-town of Elysium was booming with agricultural industry as the republic began to grow. Cereal crops were vital to Martian independence, and the first grain crops grown in the domed fields outside Elysium were being turned into loaves of bread by the time of the first anniversary of the Martian Peace Accords.³⁰ If people were going to experiment with vineyards anywhere, the slopes of the biggest volcano in the solar system held enticing promise.³¹

Volcanoes create fertile, mineral-rich soils, and volcanic wines have a distinctive, sought-after profile that "leans toward the savory, with herbal notes and touches of salt and brine."³² Olympus Mons is an extinct volcano, so no danger of pyroclastic surges, but for setting up crop fields, it lacked many of the factors taken for granted back on Earth in terms of atmosphere and climate.³³ However, with all the tempting chemical analyses coming in from the Olympic soil, Dr. Cortez and others were eager to try.

Everyone went into the project knowing it would be several years before bottles could be on shelves for sale, and, to help offset costs, the vineyard agreed to be part of the newly founded University of Elysium, the winery acting as a classroom for biology and chemistry students. Quite a few of the students, so fascinated by the almost alchemical process that turned grapes into wine, returned later after graduation as employees.³⁴

But it wasn't just scientists that were needed. Farmers with specialized training and experience in tending vineyards were a necessity. Grapes, especially if you want them to become not only wine, but specific types of wine, need careful tending every step of the way. Grapevines are particularly sensitive to soil types, moisture amounts, sunlight, temperatures, and need constant monitoring.³⁵ Dr. Cortez reached out to contacts she had maintained Back Earth, despite the war, and sent the call out that she needed viticulturists willing to try something completely new. Despite many in the wine industry scoffing at the idea, there were plenty of farmers willing to immigrate to help create the first vineyard of Mars.³⁶

As Dr. Cortez oversaw construction of domed vineyards on the slopes of Olympus Mons, greedy eyes Back Earth turned on the fields of Mars and saw a chance for quick profits. Land was cheap in the days of the Early Republic, especially in the flatlands far away from the safety offered by the mountains and canyons.³⁷

Soon, bottles of Mars blown glass were ready for sale holding vintages of every color, from clear platinum to deepest purple. Interest was high and neither the first tasting nor sales disappointed.³⁸ Elysium blossomed from an industrial park to a true city, and on top of Olympus Mons, the space dock expanded rapidly as Earth got word of the goods being made on Mars, and wanted to start importing.³⁹ The Mars economy boomed, in small part because Dr. Cortez and people like her had proved humans could not only survive but thrive on the Red Planet.

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'Truth Embedded In A Tale': Stories Of Utopia From Philosophers Of The Early Modern Period

Manjula Menon

Evolutionary biologists continue to disagree about the extent to which we differ from our primate cousins, chimps, and bonobos, but they do agree that there is something special about the species, *Homo sapiens*. Skills we thought made us stand apart, like the ability to pass the mirror reflection test or our capacity for language or abstract thought, are all behaviors that we now know other species are capable of. Arguably, what makes the difference is our desire for answers to fundamental questions about the nature of the world we find ourselves in. Or to put it another way, humans are different because we do philosophy.

Before empiricism and the scientific methodology took hold, humans tried to assuage this desire to understand the world with the explanatory power of storytelling. Our ancestors told stories that explained the behavior of flora, fauna and celestial objects, sacred stories that explained how and why the world was formed, and how and why it was going to end. Stories were used as both a methodological device geared towards truth-seeking, as well as the object of truth-seeking, something that is arguably also true of philosophy.

The contemporary philosopher, Timothy Williamson, argues in his 2020 work, *Suppose and Tell: The Semantics and Heuristics of Conditionals*, that human cognition relies on the use of psychological heuristics for conditional thinking. Indeed, philosophers often try to understand the world by postulating a 'what if' scenario featuring a compelling thought-experiment to get to an intuition about how the cosmos, or some aspect of it, works. Such philosophical thought experiments may use counterfactual or counter-to-fact speculation, as in asking, what if A had happened, and not B? If that sounds familiar to science fiction writers, it should. Science fiction, more than any other genre, features stories that explore the way things might be, might become, or might have been. Science fiction is thought experiments writ-large, starring humans, in all our messy glory, or other beings who are necessarily similar or at least intelligible to us, given that they are thought up by human authors.

The dawn of the scientific era, when observational techniques began to challenge prevailing scholastic methods of syllogism and argumentation, was a period of violent upheaval in Europe. Philosophers of the time wrote stories about idealized, faraway lands, where societal conditions were optimal, and the good life was there for the taking. These types of stories are now called 'Utopian fiction'. This essay will look at three Utopian works of fiction from English philosophers who lived and wrote at a time when science was being birthed and, consanguineously, so was science fiction.

The word 'Utopia' comes from the titular nation of Thomas More's 1516 novel. More, posthumously elevated to sainthood by the Catholic church, was a proponent of 'humanism', which in 16th-century London meant using rhetoric to persuade society towards social betterment. The word Utopia comes from the Greek and means 'a non-existent place that is described in great detail'. While it is unclear whether More was advocating for the Utopia he explored in the novel, the work often reads as a rhetorical exhortation in favor of the described Utopian practices. More, a statesman and lawyer, was executed by Henry VIII for not agreeing that the king's authority stood over that of the papacy. Given More chose death rather than renounce his adherence to Catholic tenets, one might think that More's Utopia would describe a Catholic state, but one would be wrong.

More's novel begins with the narrator, none other than More himself, who one day after church, sees 'a man well stricken in age, with a black Sunne-burned face, a long beard, and a cloake cast homely about his shoulders'. This person is revealed to be a Portuguese philosopher by the name of Raphael Hythloday, where Hythloday means 'nonsense' in Greek and Raphael is the messenger of God, thus, it could be read as 'Speaker of Nonsense'. Hythloday, who says he is one of the twelve who sailed with the explorer Amerigo Vespucci, declares that 'To find Citizens ruled by good and wholesome Lawes, that is an

exceeding rare & hard thing'. Hythloday proceeds to describe just such a state he encountered during his travels, an island nation called Utopia, one that he favorably contrasts with the Europe of his time. It is possible that More, influenced by vague accounts circulating in England about the cultures of the Aztecs and Incas, had chosen a geographically adjacent setting to provide a sheen of verisimilitude for his island nation of Utopia.

In contrast to the teachings of the Catholic church of which More was an adherent, euthanasia and divorce are legal in Utopia, priests can marry, and women can become priests. Indeed, multiple religions are practiced, with none discriminated against by the state, except perhaps for the practice of atheism, which is merely tolerated. The Utopians only go to war if necessary, and this is contrasted favorably with the European monarchs of the day, who are described as being easily goaded into war if only to enlarge their dominions. Utopians live in clusters of extended families; clusters vote for a leader, and those leaders, in turn, vote for a supreme leader, who assumes the position for life. Women and men are educated in the same way, including being trained for war. While private property is not allowed, slavery is legal, indeed every cluster is assigned a couple of slaves, often prisoners of war or criminals. More presses Hythloday on why he does not take up a position in court as a counselor to a European king, given that with his vast experience and knowledge, he could be of great use to the public in this capacity. Hythloday argues that kings are either so wise they wouldn't need his counsel, or so unwise that they would not listen to counsel even if he were to provide it. While the words are Hythloday's, it seems likely that the views are the author's. Yet, given so many of Utopia's laws stand in direct contrast to More's avowed Catholic beliefs, indeed beliefs he chose to die for rather than recant, perhaps More conceived of Utopia as a place that should exist, but cannot, given his understanding of human nature.



Francis Bacon, the father of empiricism, said of the Aristotelean system of philosophy that it was 'only strong for disputations and contentions, but barren of works for the benefit of man'. Bacon's seminal work *Novum Organum* argued for a new logic, one that advocated for inductive, rather than deductive, reasoning to advance knowledge and learning, paving the way to modern scientific methodology. One might think that an empiricist like Bacon would not place much of a focus on religion when describing his Utopia, but once again, one would be wrong.

Bacon's novel, posthumously published first in 1627, and then the Latin version in 1636, was titled *New Atlantis*, is the story of a ship whose crew, 'finding ourselves in the midst of the greatest wilderness of waters in the world, without victuals, gave ourselves up as lost men, and prepared for death.' The crew's prayers are answered when they catch sight of land and sail into 'the port of a fair city, not great indeed, but well built, and that gave a pleasant view from the sea.' An elegantly dressed party, who after asking for

and gaining confirmation that the crew members are Christian and not murderers or pirates, offer medical care for any sick among them. The island nation is called Bensalem, a portmanteau that combines the Hebrew word for son, 'Ben', with the Hebrew word for peace, 'Salem'. Bensalem's well-dressed inhabitants are mainly Christian, but also include a Jewish community, all of whom are deeply cautious about interacting with outsiders. Other than being told that Bensalem has a monarchical system of government, little else is shared about their laws and societal structures.

Once ashore, the importance of family in Bensalem is made clear with a scene that vividly describes a grand feast that the crew attends. The Feast of the Family is funded by the Bensalem state to honor any man with thirty or more living descendants above the age of three. Such feted men are called ‘tirsans’, and as one of them explain, “You shall understand that there is not under heaven, a nation so chaste as this of Bensalem.” Next, the crew become witness to a miraculous column of white light that appears in the sea under a celestial cross, a vision that moves a resident of Bensalem to cry out, ‘thou never workest miracles but to a divine and excellent end, for the laws of nature are thine own laws, and thou exceedest them not but upon good cause.’

The story thus proceeds to the *raison d’être* of the novel as per the prologue: the description of Solomon House. The Father of Solomon House, a man resplendently dressed in silks and velvets, informs the crew about the institution: “The end of our foundation is the knowledge of causes and secret motions of things, and the enlarging of the bounds of human empire, to the effecting of all things possible.” The goal of Bacon’s *Novum Organum* could perhaps be described in the same way.

The Father of Solomon House describes to the visitors a few experiments currently in progress at the institution. The experiments all have firmly pragmatic aims, including the production of new drugs to defeat disease and to aid longevity, engines powerful enough to influence the weather, even new methods to provide nutrition to the body by the absorption of an engineered material dropped directly onto the back of a hand. He describes how sounds and scents can already be manufactured with fantastic precision, as can ultra-fast vehicles and ultra-precise clocks. Instruments of war being manufactured include houses of deceit that can produce realistic apparitions and illusions.

Far from being instigators of war however, Bensalem motivations for building their powerful war machines are purely defensive. Indeed, they are so cautious that they sharply restrict their interactions with outsiders. The only external trade they engage in is the exchange of ‘light’, where ‘light’ stands for learning and understanding that is arrived at through the design, execution and verification of experiments. This trade in ‘light’ is conducted by twelve ‘merchants of light’ who sail under foreign names to other lands, to gather and return with new light. The imported light is subject to scrupulous scrutiny, till finally three men called ‘lamps’ contrive further experiments that aim to a higher light to penetrate even further into nature. Perhaps this is Bacon trying to evoke Genesis 1:3: ‘Let there be light’ with knowledge derived from observational techniques. At the end of *New Atlantis*, when the sick have mended, the ship has been repaired and stocks replenished, the crew are granted permission to disseminate all they have learned from their visit, thereby becoming perhaps ‘merchants of light’ themselves. The isolationism of New Atlantis are interestingly parallel to the policies that the island nation of Japan had begun implementing in 1624, around the time Bacon was writing *New Atlantis*.

Bacon was raised in a family deeply entrenched in the affairs of the state. His father was Sir Nicholas Bacon, Lord Keeper of the Great Seal, and his mother, Anne, was the daughter of the tutor to Edward VI. Francis himself eventually became a member of parliament and was deeply involved in the political intrigues of the era, close to both Queen Elizabeth and the Earl of Essex (who led a failed insurrection against the Queen). In *New Atlantis*, the father of empiricism advocates passionately for a society that is not for the magical but for the angelic, not for superstition but for divinity, not for the ‘commixture of manners’, but for ‘preserving the good which cometh by communicating with strangers’, not for war but for building advanced weaponry.

Finally, consider the Duchess of Newcastle, Margaret Cavendish's 1666 work, *The Blazing-World*. Cavendish, like Bacon, was a royalist, but unlike Bacon, backed the wrong side, and lived in exile for over fifteen years as a result. Also like Bacon, she rejected the Aristotelean method of epistemology in favor of the new empirical methods. As the first woman to address the Royal Society of London, she states in her prologue for *The Blazing-World* that she is specifically targeting a female audience for the work. Indeed, her prologue, addressed to 'Noble and Worthy' ladies, reveals that the tripartite structure of the work, which includes both a fantastical and a romantic section tacked on to her original *Observation Upon Experimental Philosophy*, was in order to better appeal to this audience 'by reason most Ladies take no delight in Philosophical Arguments'.

The protagonist of the novel is 'The Lady', who in the first part of the book is kidnapped by a foreigner who has fallen vehemently in love with her. He races away with her as captive, only to encounter a storm that blows his ship to the north pole, where he, along with his men, perish. Only The Lady survives to discover that the North Pole serves as a gateway to another world, one with a sun of its own, peopled by strangers in the shape of animals and birds, but who walk upright. *The Blazing-World*, as she learns it is named, is an exceedingly peaceful place. From the bear-men to the fox-men to the geese-men, they all speak the same language, share the same monotheistic religion, and are obedient to the same emperor. The groups, in spite of their sharply different shapes and sizes and colors, live in perfect harmony. When she meets their emperor, he first assumes she is a deity, but when she insists that she is mortal, he professes his love, and asks if she will become his empress. Thereupon, she is given absolute power over the *Blazing-World* and quickly sets about creating societies dedicated to learning and scholarship, with an emphasis on empirical methods to derive knowledge.

Cavendish and her husband were supporters of the Crown who went into self-exile during the first English civil war, after the royalist faction lost to parliamentarians in favor of a constitutional monarchy. Her version of Utopia features,

unsurprisingly perhaps, a strong monarchical form of government. When The Lady questions the inhabitants of the *Blazing-World* about why, they reply that just as it was natural for one body to have but one head, it was also natural for one political body to have but one governor. Moreover, they declare that the monarchy is a divine form of government, and in direct accord with their monotheistic belief; just as they unanimously submit to only one God, they likewise unanimously submit with complete obedience to only one monarch. Under this all-powerful head of state are a cadre of eunuchs who work diligently on the ruler's behalf. Perhaps Cavendish, punished for her support of her monarch, is metaphorically implying that a neutered nobility is what is required for a monarchical system of government to function harmoniously. Cavendish's Utopia is thus one where harmony is a paramount goal, where empiricism is the gateway to epistemological success, and where all the people submit to one monotheistic religion and to one monarch.

Since the dawn of science, philosophy and science fiction have been natural allies, fellow travelers in humanity's journey towards greater understanding. Inspired by the nascent scientific method for gaining knowledge, English philosophers of the early modern period wrote 'truth in a tale' type of science fiction, works they hoped would cross-pollinate ideas and shape narratives towards greater understanding and a better world.

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The Story of Atoms

Geoffrey Hart

In the beginning was the first scientist — the God Particle, GP hereafter. (Even in the beginning, scientists loved their acronyms, abbreviations, and clever wordplay, and GP was no different. And, of course, GP was ineluctably masculine, since back then, only men could be scientists. There being only one of him, that was less sexist than it might seem to modern sensibilities.)

Darkness was upon the face of the universe (for back then, there was only one), and GP looked upon it and saw that it was good: it had the simplicity of a really good Japanese watercolor, though, of course, such things had yet to be invented. Best of all, it left everything to the imagination, which was a more effective technique than overexplaining and overcomplicating everything. That was to come later, when universities were invented.

After a time — unquantifiable, because time was still a new thing, the paint still drying and GP not quite sure whether quantification was as good an idea as it had seemed at the time — GP began to feel just the slightest bit lonely. After all, what good was a universe if there was no one else to appreciate it? So in a fit of enthusiasm, GP created another being with whom to share the void. Let's call her "GP Prime", or "Prime" for short, for there would eventually be mathematics, mathematical tradition, and the notation it spawned. More importantly, of course, any good story needs conflict, and laying claim to first rank, first causes, and first publication was a primary source of conflict then, as it is now.

Prime was *very* impressed with the universe; there was, after all, nothing else quite like it. But after a time, she noted a certain sameness to it. With no light, there was only structure and symmetry to gaze upon, and though it was an admirable and symmetrical structure, it was a trifle... bland.

“GP, I think something’s missing,” she ventured.

“Why? It’s perfect and, by definition, cannot be improved upon.”

“While I concede, for the sake of argument, that perfection is perfect, I’m not sure it’s *sufficient*.”

“What would you add?”

“Hmmm... perhaps a little... light?” And there was light, a warm reddish background glow that both illuminated and concealed, and now the structure and symmetry stood out and could be more easily appreciated.

“But... But... It leaves nothing to the imagination!”

“Don't over-react. It's only a little light. Be still, and I'll fix it.” And Prime created shadow, and GP saw that it was good.

“I *like* that shadow.”

“Thought you might. But why stop there? For example, all that structure is perfectly lovely, but what’s it all in aid of?”

“Well... *us*, really.”

“Why not try a little of *this*, instead?” And Prime created atoms, and GP saw that they were good.

“Huh. Never would have thought of that on my own.”

“Of course not. That’s why we have peer review.”

GP was a little miffed, but deeper down, felt something he’d never felt before. *Intrigued*. Despite his trepidation, he could hardly wait to see what Prime had up her (thus far, entirely metaphysical) sleeve.

“What else have you got?”

“How about this?” And where once there were atoms, perfect and indivisible, now there were subatomic particles.

“Neat! Can I name them?”

Prime nodded, secretly pleased.

“Let’s call this big one a *proton*. And this smaller one an *electron*.”

Prime pursed her lips. “And just to shake things up, how about this?” And a third particle appeared.

“Ooh! That’s transgressive... it’s... *unbalanced*! What will you call it?” GP was, after all, perfectly willing to give credit where credit was due. Eventually.

“*Neutron*. And here’s another cool thing.” Prime disappeared the electron.

“Wait: where’d it go?”

“Into the proton — and now it’s a neutron!”

“Put it back. I like having three different particles.”

“Very well.” The electron reappeared. “Hmm... then you’ll love this.” And suddenly there were a great many smaller particles humming with energy and bouncing off each other and vibrating and rotating and translating with their enthusiasm. “I’ll call them *quarks*, and... and.... This undeniably cute one will be *Charm*, and this one I haven’t completely figured out yet I’ll call *Strange*, and...”

“*Enough! Enough!* My head’s spinning.” GP was beginning to regret having given Prime both a mind equal to his own and agency to use it.

“But if I subdivide the quarks into these littler things...”



“STOP! NO FURTHER!” GP regretted having to shout, but it seemed necessary to catch Prime’s attention before she got carried away. *More* carried away, leastwise. Things were still relatively simple, just the way he liked it, but he had a sense of foreboding.

Prime took a deep breath (now that there was something to breathe) and pondered a moment. “Well, if you don’t want more smaller things, how about larger?” She banged two atoms together, and there was a brilliant flash of light.

“What was *that*?”

“I call it *fusion*... bang enough little things together and you get bigger things. Bang a few of those bigger things together, and you get even bigger things. I’m going to call them *elements*.”

“And what if I were to break them apart again?” And GP did, and there was even more light. “*Ouch!* That stings.”

“I’m going to call that *fission*. And if you’re going to break the things I make, then you’d best take care.” There was no doubting it; a note of petulance had

crept into Prime’s voice.

GP attempted a placating tone. “*Nice*. What else can you do?”

“Well first, let’s make the light a little more steady. *There*.”

“Wow. I’m going to call those *stars*. Because you’re a star performer.”

Prime managed to conceal her wince; it helped that GP wasn’t really paying attention to her, gaze focused on his universe. “OK, good. Now how about these?” Large clusters of atoms came together and began circling the stars.

“*Nice*. I’m going to call them *planets*... because... um... they move.”

“You like moving things? How about these?” More atoms came together and started orbiting the planets.

“*Nice*. I’m going to call them *moons*. But stop: no further. Let’s enjoy what we’ve created before we needlessly recompile.”

Prime sighed. *We?* Even then, before academic review committees and departmental politics, authorship was an issue. “But why stop there? There’s so much more *we* could create.”

GP, entirely missing how Prime lingered over the *we*, tried to reassert his authority. “Because it’s *my* universe, and I say so.”

“That’s easy enough to solve. Here!” And suddenly, where once there was a single universe, now there was a multiverse. “You play with this one, and I’ll play with that one, and when we’re done, we’ll compare notes and see who’s done the better job of putting things together.”

GP tried to push stars and atoms and planets and moons and other things back together into the simple, elegant simplicity he’d created, but Prime, though younger, was not naïve. She’d known this would happen, and the harder GP tried to put things back the way they’d originally been, the harder her multiverse strove to create more of itself.

“STOP! NO FURTHER!”

Prime chuckled. She hadn’t realized just how much she resented being told what she could and couldn’t create or modify or play with. “Don’t like that, huh? Well try this:” And around one of the older stars, on the surface of a planet with a single moon, more clusters of atoms came together and rose from the earth. Some were happy to stay in place; others were restless as the moons and planets and stars themselves, and moved about.

“STOP! NO FURTHER!”

Prime doubled over in outright laughter as GP grew apoplectic. The new things began making their own new things, some like themselves, some not. *I’ll call that evolution*, Prime said to herself. *See how he likes that.*

GP tried, with increasing desperation to put things right; Prime knocked them astray again. And so it went through the aeons. Each time GP put the genie back in the bottle, Prime gleefully tugged loose the cork; when GP vacuum-welded the cork to the bottle, Prime invented wormholes; when GP constrained the wormholes to atomic diameters, Prime created quantum tunneling.

Which brings us to the present, the end (for now) of this story of the early days of atoms, and — if you’ll forgive me — the moral of this tale. The multiverse is an endlessly messy place, and it’s not yet clear whether this is a good thing. But it’s what we’ve got, and we’ve got to make the best of it. Occam’s razor tells us we mustn’t ignore the true complexity, but that we must also not complicate things unnecessarily. If we keep trying, someday we’ll achieve an understanding that’s no more complex than necessary. And perhaps that will satisfy GP and Prime enough that they can shake hands, agree to disagree, and get on with figuring out what it’s all in aid of.

~

The Arbiter

Conrad Gardner

EXHIBIT 101 – THE ARBITER

BEFORE TOUCHING, READ BELOW:

Forged in 1882, The Arbiter is the earliest Pistante in history. It was created by Abel Garcia (1860-1922), an Anjiladonian native who trained as a mage in this museum's home at the age of ten. Upon leaving the Mantelios Institute, he moved to the developing settlement of Los Lojones in Mastaces, Babonia, working as a smith. Born to farmer parents, Garcia was used to labour, but not always well-behaved, stealing trinkets from his grandparents. Adopted by an aunt after his father's death, he was enrolled in our institute, being taught humility and learning to help the less fortunate.

During the Third Invasion (1882 – 1885), Garcia attempted to defend the town, but his offensive spells needed a device to help channel their power. His hand-cast spells lacked accuracy, so he forged The Arbiter, inventing a new kind of weapon that would protect the entirety of Kantinia.

Modelling The Arbiter on a Ricosto Revolver, Garcia implemented the chant *Spiritum Deus Guardia* for several hours while under the forge's heat. (This chant has been used on two other exhibits in this institution's collection, Exhibits 84: The Disciplo and 96: Ramirez's Lawgiver). His diary (housed in the Mantelios Library) notes that when removed from the forge, 'The gun was too light, like a leaf.' The weight of his chants squashed the barrel, increasing it four millimetres in length, proving beneficial to the weapon's range capabilities. With the first Pistante in hand, Garcia learned to focus his beam casts on the weapon (which he termed 'injecting') and fire the energy bestowed, becoming the first gunmage. He waged war on the Chacibarae and Chupahomani that terrorised Los Lojones. *Porofí* was one of his most frequent casts against such beasts, powerful when injected into The Arbiter.



In 1883, Garcia returned to Anjilados, a focal point of the Third Invasion. Ignoring the torment of the surrounding towns, The Arbiter weighed his belt down until he agreed to return.

The gunmage rode through the country, shooting Fiestorre with *stakati* energy as he passed. With an army of New Babonites and Anjiladonians behind him, he helped reclaim his land. When not fighting, he shot his injured allies with *consuiviae* projectiles, healing those that had rudimentary cuts and bruises. Though The Arbiter never refused him, he said his Pistante grew heavier during moments of anger, which led him to learn the meditative arts. He shared the knowledge of how to craft a Pistante with few people, though many imitations by criminals yielded failed results.

Due to the draining effects of injecting his magic into the Pistante, Garcia retired in 1905. An international discussion started about who would continue his legacy and become the next gunmage. Despite numerous attempts by the Anjiladonian and Babonian governments to claim the weapon, no politicians or military leaders could lift it with ease. Competitions

were held without Garcia's consent, attempting to find the best fighters and shootists, but no winners were selected by him.

Deciding to search for his new mentee himself before he grew too drained, Garcia came upon Rosa Macabe (1899-1966), a young thief in Mastaces City after she attempted to steal his wallet. Taking his belt, and The Arbiter with her by accident, Garcia saw the weapon did not drag her to the ground and sensed her benevolent spirit. Adopting Macabe, he tutored her in achieving inner balance and using her talents to help others.

Garcia's choice was controversial. He permitted others to try using the weapon, but it was lifted by few, fired even less. The Saraphitos made vocal threats against Macabe's life for not being a noble-born magician. Garcia taught her his method of weapon-smithing and had her study The Arbiter's individual parts before he let her practice firing it. The weapon is notorious for being difficult to use unless the wielder understands its making. On his deathbed, Garcia said that Macabe was a better gunmage than him as she had mastered her hate.

During the Poronean Invasion on Kantinia, Macabe used The Arbiter to defend the continent. Preventing the needless slaughtering of thousands, she proposed a duel between herself and a Poronean champion, Cladstock the Brute. Injecting The Arbiter with *combosti*, she demolished his armour with a flurry of shots (Exhibit 198: Cladstock's Helmet can be seen in the Invader Display, where the effects of *combosti* energy on veitor steel are visible). Following her predecessor's practice, she never wore armour, making her grasp around The Arbiter's ivory grip firmer, and her movements quicker.

In 1957, a Sariphoto invaded Macabe's home and tried to execute her with The Arbiter. The Pistante detected the attacker's dark soul, refusing to fire and scorching his palm. Taught by Garcia not to rely on The Arbiter for all spells, she killed the Sariphoto with a hand-cast *combosti*.

Drained by The Arbiter as Garcia had been, she searched for its next bearer, Guillermo Conti (1968-). Losing his parents in the Poronean Invasion, he was taught at this institute until Madame Macabe selected him as her successor at the age of fifteen. Despite his aggression, he tempered this along with steel at Garcia's forge as Macabe mentored him.

Serving in the Diavolos War (1986-1987), Conti helped close the Tiaria Tear, and was the leading gunmage of the Anjiladonian army. By the war's end, he had greatly contributed to establishing an era of peace.

Conti attempted to use healing casts on it, but *consuiviae*, was the only workable spell, due to its projectile nature. Unable to help others with The Arbiter beyond basic medical aid, he returned here to become a teacher. Introducing two new classes, Gunmaging and Gunsmithing, Conti crafted his own Pistante and gifted The Arbiter to this institute, saying that it had no use in a time of peace, as it needed conflict to be used well.

Here it lies, waiting for a day The Mantelios Institute prays will never come. If you wish to hold The Arbiter and see if you are worthy, please take hold of the grip.

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WARNING: The Mantelios Institute and Museum does not claim responsibility for any injuries sustained when attempting to fire or remove The Arbiter from its *Lashiana*-enchanted glass. Hands are crumpled or burned at the visitor's risk.

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Preliminary Threat Analysis of Security Guests Intercepted On A "Cultural-Intellectual" Mission In Possession Of Plato's Dialogues

Thomas White

From: Ibis Smith, Chief Inspector, Office of Mind-Body Inspection Services (OMBIS), New Bright City.

To: Jason Taggart, Administrative Controller, Office of Minister of Hygiene (MOH), New Bright City.

Subject: Preliminary Threat Analysis of Security Guests # 7689 and # 7690.

Date: 7 May 5145, Year of Our Hygieia.

Greetings to the Honorable Minister of Hygiene! All Hail to our beloved Hygieia, Goddess of Sanitation and Civilization! Blessed be our glorious species, Homo Perfectus!

Introduction:

This report is in response to an urgent personal inquiry from the Minister of Hygiene regarding two alleged inhabitants (hereafter "Intercepts") of the Unsanitary Orifice Zone (hereafter "UOZ") intercepted by a convoy brigade of the Knights of Purity (hereafter "KOP") while the latter was on a security patrol near the Wilderness Road bordering the UOZ and New Bright City.

An investigation is ongoing, but given the personal interest of the MOH, the OMBIS is providing herewith a preliminary report, including a brief account of the interception action, scientific findings, and excerpts from the interrogation transcripts of the aforesaid Intercepts, which incorporate interrogator observations.

It is respectfully noted that some of the details provided by the interrogation officer are unseemly and graphic, but the OMBIS is dedicated to the full disclosure of all facts to the Minister. That said, the OMBIS is providing a full report to the MOH within ten (10) days of the date of this preliminary report.

Interception Action:

On two separate dates, April 30, 5145, and May 1, 5145, a Knights of Purity brigade separately arrested the two aforesaid Intercepts upon their entry into the rural outskirts of New Bright City via the Wilderness Road from the Unsanitary Orifice Zone.

It is unclear at this stage if these two Intercepts are cohorts engaged in a common mission; however, for the reasons explained below, they were formally designated as security risks. Our ongoing investigation is probing whether not only the two Intercepts know each other but also whether they are part of a broader UOZ conspiracy aimed at subverting the purity and tranquility of our social order.

Scientific Findings:

a) SSgt. Jay Chenwith, Brigade Commander, after officially arresting the two individuals, ordered that his brigade's security officer extract evidence of any incriminating link to the UOZ:

i) Security Officer Michael Jones examined grains of matter from the Intercepts' palms using the field kit's certified, portable digital geo-magnification micro-lens. The holographic feedback generated clearly indicated that both Intercepts had soiled their hands in an unsanitary environment where there were unwashed dishes and coffee cups.

ii) An additional analysis using a micro-global positioning device verified that said unclean environment was located inside **Café Camus**, a known UOZ gathering place for poets, philosophers, "intellectuals," and other marginal types committed to the illegal ideology of radical imperfection, normally implemented via the Socratic Dialogue and its variations.

iii) Further analysis, using an olfactory scanning device on the collected data, revealed the chemical traces of body odors and bad breath—consistent with a crowded café full of self-styled bohemian wastrels.

b) Given these incriminating facts, SSgt. Chenwith further ordered that Security Officer Jones, in conjunction with the brigade's medical officer, Dr. William Sanders, conduct a species-specific identification saliva test on the Intercepts. The genetic markers showed a positive ID: both Intercepts were CONFIRMED as members of the species *Homo Impurus*. They were then officially designated as "Security Guests," aka security risks, to be held in custody.

Interrogation Findings:

SSgt. Chenwith, as per the standard protocols, then holographed his chief operations officer at the Knights of Purity headquarters to query whether he should bring the Intercepts in for a formal interrogation or first conduct a preliminary inquiry in the field.

SSgt. Chenwith was advised that he should conduct the interrogation in the field, transcribe the proceedings, and then report in two days to the KOP HQ along with Intercepts #1 and #2 for further briefings and interrogations. SSgt. Chenwith agreed with this decision, as it would take his convoy about a day to reach City Central, while his brigade had on board an experienced, certified interrogation officer familiar with the ideological and philosophical writings studied by members of *Homo Impurus*.

Hereafter is a brief executive summary of the said preliminary field interrogation, which includes excerpts from the transcript of the exchanges between the Intercepts and the interrogation officer, as well as the latter's comments:

Under questioning, supplemented by electro-heat points briefly applied to their fingers, the Intercepts admitted that the reason for their intrusion into New Bright City was what they called a "cultural-intellectual mission," although they denied conspiring with each other (an allegation that, as noted, is still currently under investigation).

[The interrogation officer then held up a copy of Plato's *Dialogues*, opened a page, and showed it to the Intercepts. He then handed the two Intercepts their copies.]

Interrogator: "I am giving back your copies, and I want you to open at the dialogue of *Parmenides*. I call your attention to Section 130 b-d: another philosopher asks Socrates if there is any abstract idea linked to 'hair, mud, dirt' and he says that is absurd. There you have it. Even your great hero, Socrates, thinks you are preposterous. You longhaired *Homo Impurus* mutants lounge all day in your UOZ cafes, clad in your muddy hippie boots amid dirty bodies and bad breath, absurdly thinking that you can connect with meaningful philosophical ideas. Your intellectual lives, full of unanswered questions and poetic meanderings, disturb and confuse our minds. New Bright City is beyond all that. We want both the calmness and peace of mind, as well as the purity of clean bodies. Our government wellness meditation teams work hard to instill inner peace in our citizens, and we don't need meddling from Socratic radicals subverting New Bright City's beloved social tranquility with troubling questions that can lead to community unrest, poor sleep, and the general curse of imperfection."

[End of Transcript Excerpt].

[Transcript Excerpt]:

Interrogator: "So, you both deny conspiring to implement this so-called 'cultural-intellectual mission, yet we have found that each of you was carrying an identical copy of Plato's *Dialogues*."

Intercept # 1: "A mere coincidence."

Intercept # 2: [Nods in agreement.]

Interrogator: "Okay, we will leave that question for the main interrogation unit at headquarters to sort out. On another point: I noted that you both had 'coincidentally' highlighted in your copies the section in the *Republic* on Plato's Allegory of the Cave. [The interrogator then held up the open, underlined pages in front of them.]

Intercept #1: [No reply.]

Intercept #2: [No reply.]

Interrogator: "Surely, your mission is not some confused effort trying to bring the 'truth' to a 'cave' full of ignorant people living in the shadows, which you probably think New Bright City is? That is not only a foul slander against the good and wise people of our fair land, but a fool's errand. We long ago found the truth: cleanliness is godliness."

[No reply from Intercept #1 or #2.]

Interrogator: "We are really having a terribly one-sided Platonic dialogue, aren't we? Do not worry. There will be no more of the 'hot finger' procedure. I will leave that to headquarters, which has more expertise. I prefer to keep our little session at the civilized, intellectual level."

Conclusion:

These excerpts from the first interrogation session by the Knights of Purity's field brigade clearly show why SSgt. Chenwith was correct in designating the two Intercepts as security threats. They obviously were on a mission, driven by an ideology of radical imperfection, to ask the citizens of New Bright City disturbing philosophical questions disruptive of the citizens' perfect, untroubled minds—a subversive plan enhanced by the disgust inflicted on the citizens via the *Homo Impurus'* chronically unhygienic bodies.

I respectfully urge the Minister of Hygiene to give this serious matter of *Homo Impurus* threats the utmost attention, including the construction of an electrified wall at the border between the Unsanitary Orifice Zone and New Bright City.

My entreaty to you is given fresh impetus by recent reports from my field inspection staff: various youth with unclean bodies and in possession of philosophy books have been discovered having sexual intercourse in broad daylight. When confronted, they called our beloved Hygieia "a filthy whore" and shouted "Long live Diogenes," an allusion, as you know, to that ancient, unsanitary philosopher who performed intimate bodily functions in public. Have other *Homo*

Impurus subversives successfully infiltrated our fair land and, using their dangerous Socratic weapons, corrupted our youth? A full investigation at the ministerial level is urgently needed.

However, no matter what course of action the Minister of Hygiene ultimately chooses, I can assure the MOH of the complete cooperation of the Office of Mind-Body Inspection Services.

Respectfully Yours,

Ibis Smith

Chief Inspector

Office of Mind-Body Inspection Services

New Bright City



The Economy Of Words:

Differing Philosophies Of Humanism Between Western And Muslim Science Fiction

Emad El-Din Aysha, PhD

“To search for God with logical proof, is like
Searching for the Sun with a lamp.”

--- Sufi Proverb

intravenously just so he can focus on work nonstop. He is so literal-minded and mean-spirited, when the kid from next door shows him his kitten – calling it a tiger – he cannot understand why the boy calls it that. He even encourages the boy to bring the animal with him to the laboratory, to perform horrendous experiments on it like they do on rabbits and mice. His wife later confides to a male friend that she will insist on a divorce, but not until after he returns from an expedition – he had been sent to an archaeological dig on the ancient planet of a dying race.

Science fiction is an exposition-heavy genre of literature. Everything from the laws of physics to the socio-political system to the way a computer programme works has to be explained to the reader, either through an extended introduction, forced dialogue between characters or a narrative device such as a radio broadcast summarizing the world as it is. Much the same holds true of philosophically-themed science fiction. A perfect illustration of this is a lovely short story by Philip K. Dick, possibly one of the most philosophically inclined SF authors of the 20th century. The story in question, “Human Is” (1955), is about the plight of a housewife married to a phenomenally unpleasant man, a crude scientist who is not interested in family life, romance or anything, not even food. He would prefer to be fed

When he gets back, however, he appears to be a whole other man. He speaks in a ridiculously romantic way, as if out of a Mills and Boon novel, wants to have kids and is great with the boy from next door and becomes very inventive when it comes to food, chatting endlessly with the kitchen computer. The housewife tells all this to her friend and he figures out what had happened. That dying race on that ancient world would often snatch a man's personality from his body and replace it with their own psyche to give their race a new lease on life. Now the housewife has to give her sworn testimony in court, to prosecute this alien and – more importantly – bring back her husband. Something she steadfastly does *not* want to do. She lies in court, saying that this is her husband, and he has always been this way and that as a wife she knows her man. Afterwards, the alien inhabiting her husband's body apologizes to her and says he should have told her from the start, and they turn over a new leaf and live happily ever after. The lesson is, clearly, that human is 'kindness'. What makes you human isn't biology but morality and volition. The title pretty much tells you this, as do other works by Philip K. Dick, such as *Do Androids Dream of Electric Sheep* (1968) and the original short story that inspired it, "The Little Black Box" (1964), where empathy is explicitly stated as the key to defining what and who is human.

Endless exposition is to be expected as stated above but it is also a shame, when you compare Dick's story to a similarly themed work from Iran – "Ice Cream Cone" (2014) by Iraj Fazel Bakhsheshi. It is very short, almost flash fiction, beginning with a man getting an ice cream on a hot summer's day in Teheran. The ice cream vendor is complaining to him about the scolding heat, with the customer not replying. Then the customer sits on a bench and allows the ice cream to melt all over his hand. In the meantime, there is a cat rummaging for food among the plastic sacks of garbage while a miserable beggar asks for handouts in the background. Later the man goes home and turns on the TV set to listen to the results of the latest poetry contest and, while watching, plugs himself in. He was an *android* all along. A translucent recharging figure emerges on his forehead while in the background the announcer reads a 13th century Sufi poem by Saadi Al-Shirazi:

Human beings are members of a whole

In creation of one essence and soul

If one member is afflicted with pain

Other members uneasy will remain

If you have no sympathy for human pain

The name of human you cannot retain

Both "Human Is" and "Ice Cream Cone" say the same thing but in completely different ways. Dick's story is a proper narrative with explanations from the various characters, whereas Iraj's story is far more compact and open-ended because there's *no* exposition at all. It leaves so many questions unanswered. The silence of the android character makes you unsure why he bought the ice cream and also not one hundred percent certain if the story is condemning the inhumanity of man to man. Hence, the starving cat and the miserable beggar. The title is also vague. The closest thing to exposition we get is through the poem, but again these are just hints, with no real explanation for anything.



Great writers and movie directors often leave things open-ended to create an air of mystery and intrigue and to force the audience to think for itself and reach its own conclusions. And in the case of Iraj's story, he has used these techniques to keep the story compact and maximize the shock appeal.

The question then is how Iraj Fazel Bakhsheshi was able to produce such an efficient and sophisticated story given that Muslims are the new kids on the block, so to speak, when it comes to science fiction. SF was invented in the West and for Arabs and Muslims it is an import, and a recent import at that; Iraj isn't even a professional writer but a geologist and engineer. Many of our authors in the Middle East, whatever genre they write in, have to have a regular job to make ends meet and pursue writing as a pastime and passion. True enough, but Iran nonetheless has a long and proud storytelling tradition, something you can see with the many international awards Iranian filmmakers garner. The

obscure and symbolic titles for such movies as *Felicity Land*, *Every Night Loneliness*, *The Frozen Flower*, *The Salesman*, *The Blackboard*, *The Silence*, *The Song of Sparrows*, *A Cube of Sugar*, *What is the Time in Your World*, alone tell you how skilled Iranians are at not giving the game away.

As for the Sufi poem, that is a cultural reference that allows for further compactness since the Iranian or Muslim reader can recognize what the author is trying to get at without an explicit explanation. Reading Iraj's other stories and novellas, you find his characters predominantly aren't named. That resonates with the oral tradition of storytelling found in Iran¹ and also Arabia, turning characters into anonymous archetypes – the policeman, the security guard, the doctor, the nurse, the detective, etc. These are archetypes but, critically, not *stereotypes*. The characters are nuanced and frequently take decisions that surprise you. By contrast "Human Is" is both exposition-heavy and weighed down with clichés and stereotypes. Science, or reason, is being seen as the enemy of emotion and the scientist here is being lampooned and condemned, much like the mad scientist trope so beloved of horror and science fiction.

Even a biopic like *A Beautiful Mind* (2001) falls into this trap, with John Nash (Russell Crowe) contrasted to his alter ego/figment of his schizophrenic imagination Charles (Paul Bettany). John Nash is egotistical, only has half a helping of heart, unsuccessful with women and downright vulgar and 'literal' with them – describing sex as fluid exchange, like in a car engine, and refusing to buy a drink for a girl. Charles, by pure coincidence, is the consummate womanizer *and* the liberal arts guy – an English literature graduate. He's everything John Nash aspires to be but cannot be. This setup is almost exactly what you see in "Human Is", the romantic alien who wants to have kids and enjoys nutritional exercises compared to the crude and literalist scientist husband. Not to forget that the latter's specialization is toxicology; he is someone who positively enjoys the vivisection of cute little furry animals. Here you see a *divorcing* of knowledge, science at least, from morality. John Nash likewise talks about his mathematical representation of a mugging, something he witnessed dispassionately without moving a finger to help the victim in question.

Islamic culture is very different when it comes to how scientists are presented. They are seen as wisemen who chose the profession of knowledge to benefit mankind. It is supposed to be a thoroughly moral enterprise. Similarly to the monastic beginnings of Western research, scientists in Islam's past were often religious scholars as well, and the same holds true of our medical tradition. Hence a common word used for medical doctor in Arabic, *hakim*, or wiseman. By contrast doctor in English means teacher, like a doctor in philosophy, a reference to cold academia.

The proper Arabic word for doctor is *tabib*, which derives from *tabtaba*, something like patting someone on the back or consoling him. It is automatically seen in moral and humane terms. When I was a freshman at university, our intro philosophy professor Dr. Ernest Wolf-Gazo actually told us that for the longest time a doctor was a low profession in European history, seen as being no different than a butcher. Then he added that it's *different* in Islamic history, seeing the look on our faces. Again for us a doctor is a wiseman who cares for you and comforts you. And surgery was a last resort in Islamic medical tradition, relying instead on medicines and natural herbs and diet first – much like with Chinese medical history, which features acupuncture, herbal remedies, and a clear link to spiritual life.

That is why the scientist is portrayed in such stereotypically negative fashion in "Human Is" on account of the author's cultural background. And most likely Dick wasn't even aware of this, as critical and philosophical an author as he was. So, ironically, the Iranian story "Ice Cream Cone" is arguably more modern and up to date.

The 1001 Nights contains fairytales but also stories that count as proto-science fiction² but in all cases the tales contain moral lessons and are mostly derived from Persian and Indian heritage. They operate at the same level as Greek myths, most noticeably a story like Icarus which is all about science, arrogance and morality. But, once again, consider how compact Iraj's story is. This shows tremendous self-discipline, not giving too much away early on, proving how modern Muslim literary traditions can be and how easily they adapt to new genres and an international audience. Ironically it is "Human Is" that has a fairytale feel to it and spoon-feeds the audience information in the manner of juvenile literature.

The message of humanism isn't just that we should search for common values but to not pigeonhole people into polar opposites and cartoonish characters. Humanism also means humility and appreciating how someone else different than you looks at the world, and how your enemy is just as human as you and driven by the same weaknesses and sentiments. After the film *300* (2006) had come out Iraj Fazel Bakhsheshi wrote his novella *Guardian Angel* (2016) in response. Instead of denigrating the ancient Greeks (or modern Westerners) he extols the virtues of ancient Persia through a time-travel story where criminals in the future travel backwards into the past to murder Cyrus the Great before he can write his famous cylinder which may be considered the first ever universal declaration of human rights. There is an alien plot involved but the ultimate criminals are thoroughly human, and Iranian nationals at that.

Comparing notes across cultures and storytelling traditions, in order to see ourselves more clearly in the mirror of the other, is a facet of humanism, too, and a lesson readers may take away when exploring the differences between Muslim and Western SF.

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Xenogram:

A Chronology Of The Global Erasure Of Vowel Number Three, And The Merger of Man

Charles Ta

An orthodox pan-temporal account of the fate of all occupants of Earth (from System S-108374421) before, throughout, and after the Astralect Engagement, as recounted by one of the last pre-Merger “Tamed” humans, for the *Astralect Eternal Records*:

When the spacefarers who called themselves the Astralects came, they took our heads and planted a “theozoan” pathogen that changed how we saw and understood the world. They had no craft to speak of, at least none that could be seen, because they were needless for the Engagement they had planned, and had far more subtle means to control us.

Over the course of several years they secretly entered our vessels of flesh, through our water, our sky, our land. As the pathogen they created covertly grew and spread, we began to lose our language, our knowledge and awareness. We started to forget our words and abandon our thoughts, as they were usurped by the vernacular of the Astralects, called Startongue. Our technology proved no match for them, and as a result, our downfall was assured. The names of faraway lands, states, and settlements faded away, books sat unread, schools turned to ash, the past and future merged as one, and pen and sword all crumbled to dust. Then whole concepts became less and less understood by greater and greater numbers of people, only to be deposed by new concepts unknown and unfathomable to our unprepared psyches.

Eventually, the bonds that once held people together broke down, for they could no longer transfer messages or speak properly, and slowly, but surely, all human art and culture fell apart. And from the shattered fragments of Earth's old governments there arose a new, supreme government. A new hegemony and a new language unencumbered by petty squabbles. One that would enforce absolute sameness for all, and both create and preserve true harmony for everyone.

Before we knew what had happened, we were no longer people. We had become dumb subdued cattle, Tamed beasts who had been quelled by the slaughter of our vocabulary. From deep beneath our frontal and temporal lobes, now managed by our mental overlords, we were told that under the Startongue language, we could no longer speak the vowel after “e”, also known as the letter after “h” and before “j”, or say or contemplate any word, phrase, concept, or sentence that used, referred to, or was related to a word that used that banned letter of the alphabet, because such words were absent from Astralect grammar and morphology. We were told through the spacers’ uncanny utterances that the symbol was censored for our own good, and out of paramount concern. Through the necessary purge, they stated, our egos would be destroyed, our hearts would be freed from the cage that was the self, and our very selves would be prepared for transcendence, for reasons unknown back then.

We flawed, broken humans, they added, would be herded towards greatness, mended and made complete, and become perfect, gentle creatures through a Great Merger that would last for hundreds of years. We *had* to be. The result of that Merger would be total Oneness and peace, as had been the fate of thousands of advanced races before us across the cosmos.

From the Astralects’ frame of reference, the letter our language once harbored was not only one of the most dangerous terms throughout the whole galaxy, but also the root of our agony, our greed, our separateness—the source of all our problems and the problems of countless other peoples and worlds comparable to ours. Lethal to nonhuman orthography and the catalyst to wars and clashes across the ages. Heresy to all that was pure and holy. Before the Astralects assumed control over us, they asserted, we were purposeless, fallen, and doomed. Had they not removed our autonomy, our free agency, we would have brought apocalypse upon ourselves—an event the Astralects could *not* allow to happen at any cost.

Months passed. Once the Astralects made sure the pathogen they had created had overtaken all humans, they appeared through portals on Earth as many-eyed, many-tentacled archangels made of nacreous, lustrous ooze. They ushered on the world a new Golden Age—one where no one could be hurt or suffer anymore, death had been overcome, war and money were forgotten, every person was equal, the extremes of ecstasy and comfort were bestowed upon us, and the problems of resources, ecology, hunger, and energy had long been solved. Although the Astralects had helped us reach the apex of our development, however, some of us felt they were not as benevolent as they portrayed themselves to be. Remnants of our past haunted our dreams even as the Astralects had begun to delete our memory of ages long gone.

Around the year 53 AE (After Engagement), a number of us challenged the rule of those who took our encephalons, corrupted our speech, and had created dull pets out of us. We attempted to rebel, to overthrow our masters as best as we could, because deep down, though the Astralects gave us heaven, we felt...detached from ourselves. But because of the pathogen that taught us Startongue, we had no words to express our rage and sorrow, let alone understand who we were. We could not comprehend that we had been robbed of our freedom and reason, nor that the Astralects were not good, not holy, or not truthful. The antonyms of these words unfortunately featured that letter that could not be pronounced by Astralects, nor even thought of. Our sloth and secret enjoyment of Astralect pleasures further hampered our cause, as we allowed ourselves to be led astray further towards beasthood than we already were.

As a result, our crude revolt collapsed mere moments after we had made our demands by groan and grunt, and assembled a clumsy, weak assault. The Astralects soon found out about our treachery and unsuccessful upheaval, but rather than torture us for our conduct, they showed us care, love, and mercy, and sought to protect us more than ever.

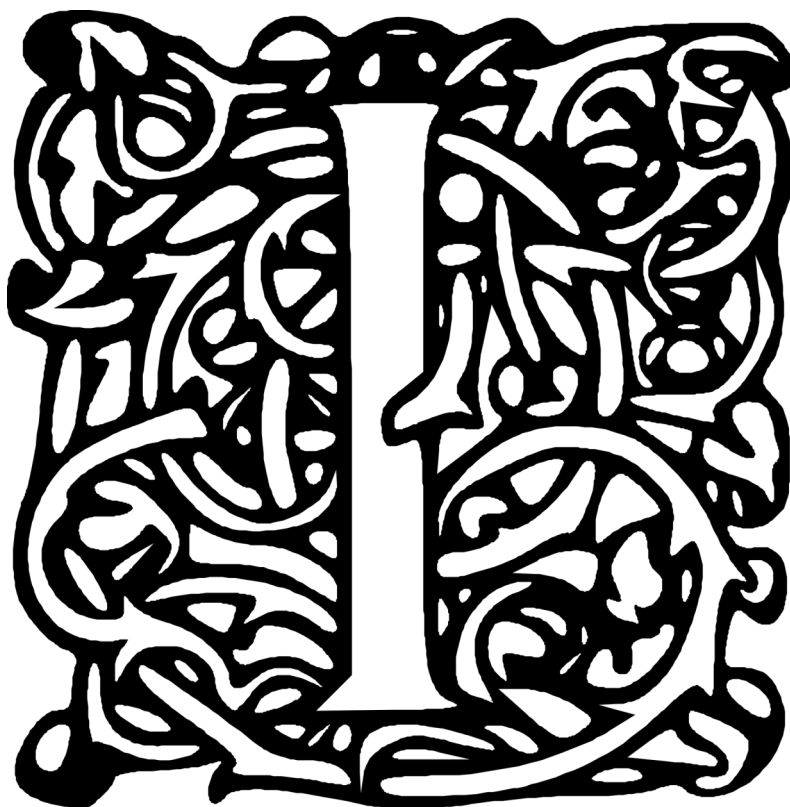
They accelerated the Merger they had planned for us. One by one, they gathered every Tamed person across planet Earth and created enormous, mouthless protoplasmic out of them called Gestalts, each one composed of thousands of humans and the pathogens they harbored. Then they took these Gestalts, fused them to other Gestalts to form even larger Gestalts, constructed “wombs” to house and feed them, and altered the genes they possessed so they resembled the thousand-armed Astralects themselves.

As of today, hundreds of thousands of Gestalts have already been Merged. Only a select few of us wander Tamed but UnMerged—the narrator tasked to be the record-keeper and curator of the Astralects’ deeds on Earth—among them.

Soon, we too shall be Merged, and become Astralects ourselves, no less godly or perfect than them. And for that, we thank them. We thank them because they freed us from the tyranny of selfhood and the soul out of mercy, so that we could escape our troubled, confused past and transcend our lesser forms towards godhood. The Astralects, blessed as they are, saved us from ourselves, preserved our people, and gave us a clear purpose: to usher total peace, order, gladness, and safety to all worlds, just as they had done to us on Earth.

And one day, as the Astralects revealed to me, we newborn Gestalt-turned-Astralects would travel across the galaxy to perpetuate the cycle they started, once we were deemed ready. The torch would be passed from them to us, just as the Astralects had been handed the torch from older predecessors, so that all peoples from all worlds could share and enjoy the total peace, love, and harmony bestowed by the spacefarers.

From there, we would travel amongst the stars to search for fallen worlds to descend upon, chosen for the advanced peoples seen to dwell on them. We would then send pathogens from ourselves to these planets, and watch as they assumed control of other races, compelled them to speak Startongue, and cleanse away the cultures they once held dear. Then we would emerge through portals over our conquered worlds, corral the races-turned-pets, and oversee heavenly Mergers between them, so that more Astralects could be bred to advance the sacred cause, and spread onto more worlds, and repeat the endless Mergers to forge ever larger and more numerous Gestalts and Astralects. Forever.



And eons from that era that we were foretold about by the Astralects, who knew many pasts and many futures all at once, the cosmos would at long last know peace after the last untouched planet of the farthest galaxy was Merged. The Astralects, they declared, would keep the peace and constantly Merge amongst themselves for eons more afterwards, so that true Oneness and peace could be reached. Over the ages, as the stars burned out, the Astralects would gradually grow as large as moons, then Merge to become planets, then stars, then black holes. Eventually, they would grow so enormous and Merge so frequently that only a few of these ageless gods as gargantuan as galaxy superclusters would be left to roam the endless darkness, and fuse and become One Astralect. One Absolute Whole, composed of the selves of all peoples and all races across all space and all eras, past, present, and future.

Through these events, however, tragedy would befall the One Astralect, the One Whole. A Great Cataclysm called “The Severance”, whose other name was “entropy” would eventually occur to the One at the end of the cosmos. A Cataclysm that not only could not be stopped or reversed, not even by the Astralects’ powers, merely delayed, but would utterly tear apart the One by the sheer forces of dark energy. But the One had foreseen the fate that would end the Astralects, and had created a method that would save them, and us all.

“Do you want to know *why* we do what we do, and how the One ensured our safety?” the Astralects told me. “The One created a portal to send our pathogens back to the past, to the early days of the cosmos, so the Astralects could be remade, and all planets could be seeded and Merged once more, your Earth just one from a long thread of many. For the Astralects truly are endless. We are the Alpha and the Omega. The Creator and the Created. Eternally One.”

~

The Convert

Brett Abrahamsen

There was a man who converted to every religion in the world.

He would convert to a religion, realize that its base tenets were lies, and rapidly convert to another religion.

He had converted to thousands of religions, and could not find any others to convert to. Hence he had to form one of his own.

He declared that there were two gods. Both of the gods were equally powerful. They were a bluish color, and stood about six inches high. He quickly realized this wasn't accurate – it was far from accurate, he decided - and that he had fabricated the religion's tenets, and hence he was forced to invent another religion for himself to convert to.

He prophesied that there were seven gods, hidden somewhere among the earth, and that he had to find them. He encouraged others to find them as well. He had received no revelations concerning where they were hidden, and he believed they could be anywhere. The gods had created the universe – in seven days, incidentally - and then decided to hide among the earth at undisclosed locations. Much to his surprise, the religion gained popularity. His family members converted. Friends of his family members converted. Soon, 99% of the world's population had converted, and he became the most important and powerful human being on Earth.

Revolted by the naivete of his followers, he converted to another religion, but this time did so in private. None of his followers had found any of the seven gods. He himself was worshiped as a god and venerated. The religion he converted to was atheism.

It was to be his final conversion. His health was failing him, and he would soon die.

But when he died, he found, to his shock, the seven gods of his religion waiting for him, preparing to damn him to hell.

~





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