

2013

New Ape Idea

Daniel Sohval

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By Daniel Sohval

Reader: Peter Antelyes

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Prologue

“Now and again one happens to hear certain music in one’s head, however.”
— David Markson, *Wittgenstein’s Mistress*

“I can’t explain just why we lost it from the start.”
—Fecal Matter, *Spank Thru*

0.1.0 — Paleo

Why a gym would have a Nietzsche quote on the wall is a mystery to Bruce Zfdel. “What does not kill you makes you stronger”. Attributed to Anonymous. Strange how every hulking personal trainer meandering about the place is more than happy to rattle Zfdel’s hair cells with complex biochemistry and anatomy jargon, but incapable of a simple web search to do away with that ambiguous Anonymous. Even the most rodentine of gym rats should be capable of that.

The quote, along with several other bits designed to inspire, run along the walls of FutureFit Spa & Gym. All printed out in an assortment of kitschey Sans Serif fonts. Seeing them before every single workout endeavor, Bruce Zfdel cannot help but perform a short close-reading. Philosophize a little while.

Another reads, “A sound mind in a sound body.” That one originates in Ancient Rome, Zfdel looked it up on his tablet while in the locker room.

Folk Psychology is the commonplace and sometimes mistaken theories of mind and brain and self the “folk” (i.e. everyone without a handful of accredited course-hours in one or more of the mind sciences) employ. To Zfdel, Folk Psychology has not advanced much since Ancient Rome. Go around a supermarket or a public park or wherever the folk hang out and somehow get a specimen talking about the mental realm and most will use language hinting at a belief in a separation between the mind and the body. That humans have some immaterial soul, which inhabits their fleshy, hairy shell.

Many too will use the words “mind” and “brain” interchangeably, which may seem to absolve them of that Cartesian trapping, but to Zfdel that doesn’t cut it. Not at all. Sure the brain is an organ in the body, much like dermis or heart or lungs; however, the folk still assign it a special reverence above all other globs of cell and tissue. Some folk enjoy imbibing some adult beverages or taking a few tokes on a marijuana cigarette and chill one another with talk of the infamous Brain-in-a-Vat thought experiment. That being an imagined scenario in which a human brain is suspended in a cocktail of organic juiced isomorphous to the body’s own cerebrospinal fluid. The floating pink thing is then administered expertly calibrated electrical shocks. According to many a member of the folk, (and several non-folk Zfdel has studied under), the suspended cerebrum should contain within it a fully rich and detailed conscious experience. Like, Zfdel presumes, all endowed with bodies and living brains.

Is Zfdel a member of the folk? Hard to say. He was well on his way to a Master’s in History at Rutgers, until President Christie privatized the higher education sphere. Rutgers was bought out by Google and Zfdel had to switch to a science or lose his graduate stipend. That was six years ago. Now he is one semester and a dissertation away from a Doctorate in Neurology.

Though graduate education doesn’t actually equate to learning anything, Zfdel has begun to think. For the most part he has spent the better part of the decade writing long, wordy lab reports and articles. All beginning with a catchy quote, followed by a color and then the topic he was to expound upon in as blunt and unsexily a manner as the English language could afford. Stuff like, *The Sound and the Fury: An Event-Related Potential Analysis of the Auditory Stroop Task and Emotional Analogues*, or, *The Windows to the Soul: Cellular Automata Representations of Ocular Saccades*. These are certainly not the ways the folk talk about anything.

If there even is a psychology for the masses it lay not in the use of a couple words, but in music, Zfdel realizes as he slips two white ear buds in his ears. A bored-looking woman with two different nose rings sits behind the gym's smoothie bar several meters away. Beneath a sign displaying various exorbitantly-priced createne shakes is a pair of speakers connected to an mp5 player. Her face placid, the smoothie girl thumbs the glass screen of her tablet and plays a SparkleJamz tune Zfdel recognizes instantly.

Music, especially pop music, is designed for mass consumption, Zfdel figures. And while in his hipster youth he saw this fact as a cause for lament, he now views it with the respect it deserves. Because of its marketability, music is always in a rapid state of consumption. The music market ergo is some kind of huge social barometer. A keyhole view to the Zeitgeist. A true scale of the folk's psychology.

Not that Zfdel considers himself to be any sort of reputable cultural critic or anything. These are all the half-baked musings that emerged from his sleepless ganglia during his multiple eighteen-hour shifts in the position electric tomography lab. When in the twilight his face cast in a corpse-like pallor from the glow of his computer monitor, pop became his main tool for staying awake. The jangly four-chord repetitions and earnest litanies of "baby baby baby" and "don't go" serving as a narcotic to the insomniac aches that planted themselves behind Zfdel's eyeballs after a week of 4-hour sleeps. Zfdel treasured the songs as little pockets of fresh air in the miasma of descriptive statistics the manhe found himself in night after night after night, looking at little blips in the fusiform gyruses of Intro Psychology students. All under the auspices of a toady assistant prof. who would take whatever findings Zfdel could procure and publish them as his own. Likely as a book that would be consumed rabidly by a small-yet-loyal circle of readers who saw neuroscience as the key to understanding others and the cure for their own solipsistic hurt.

But that was three semesters ago. Now Zfdel sleeps a luxurious 6.75 hours a night and has time to date other graduates. Which he is less than lucky at considering that he spent several years of his sexual prime trying to convince himself that the mental states of whatever lady he was trying to seduce consisted of constant reference to some cranial dictionary and thus bar-hopping and pick-up artistry became impossibly difficult.

And now he finds himself handing over a white plastic FutureFit membership card to bored-looking smoothie girls three times a week for a quick swipe-in. Although he worked out within the confines of the New Brunswick gym six days a week, he hardly had the body to show it. Try as he might, he had yet to improve beyond the spry arms, sylph-like legs and the gaunt, concave torso of the hardcore science dweeb. Perhaps his coffee habit was to blame, Zfdel often thinks, but that is an addiction he cannot afford to kick.

Today Zfdel has a plan though. A well-researched and calculated strategy to shed his wry ectomorphic shell and blossom into a sexy, muscular alpha male. His late nights had evolved from data-logging PET results to lurking fitness and nutrition blogs. Amazing how the high school jocks all seemed to turn into organic chemists behind their computer screens. Today was Zfdel's first day of a new diet and exercise regimen. Paleolithically inspired, Zfdel's new lifestyle would be dedicated to harnessing his hunter-gatherer roots. From now on he would eat only tubers and grass fed beef, and employ sprinting and lifting exercises mimicking movements most used on a grassland hunt.

Because the whole human family, folk and adjunct professors of neurolinguistics alike came from the same crop of hominids in the Savannah, right?

Zfdel approaches the barbell racks. Where several men much larger and wider than him, sporting shoulder tattoos of Virgin Maries and the cursive names of ex-girlfriends, pump iron. A few have those new inkings, based on the epidermis of deep-sea cephalopods, which change shape with movement. They blossom and blob like Rorschach blots.

The barbell racks seem to be where the fittest always reside. Away from the happy safety of the legion of ellipticals and treadmills, on which plump middle-agers sweat while leafing through magazines. Away from the weightlifting machines with their complex arrays of pulleys and lead blocks, like something out of a Renaissance engineer's notebook. No, Zfdel was headed to push some iron heft against gravity. Over and over and over. Because, according to PaleoBro12604, one of the most respectable and prolific posters on the fitness blogosphere, what Zfdel wants are the heaviest, most brutal exercises Futurefit can afford. Lifts with names that seem to foreshadow disaster like "deadlift" and "clean jerk" and "skull crusher".

Zfdel chooses to begin with a bench press. A classic lift without a menacing title. He simply lies on his back and pushes the barbell straight up. And as he steps up to the bench press station, African drum music sending tremors through his inner ears, he can't help but notice the ubiquity of tribal armbands tattooed across his fellow lifters biceps. Perhaps they inked themselves in homage to their Paleolithic fitness routines.

If Zfdel ever gets a body like that, he figures, he too would get a tribal tattoo. And his skin would not bear an iota of irony or postmodern tongue-in-cheekness.

Never having done a single press of any kind before, Zfdel had loads an arbitrary 75 lbs of circular plates on each end of the bar. It takes enormous effort to load the bar, but all the Primal Fitness gurus emphasize the benefits of high-weight low-repetition lifting. Though, the connection between that and any foreseeable aspect of hunger-gatherer life is tenuous at best to Zfdel.

He lies on his back, the metal of the barbell cool beneath his sweaty palms. His teeth clenched and already sweating profusely Zfdel pushes up against the barbell. It moves slowly over an eternity of seconds. But Zfdel has removed the weight from the rack and he is proud. His arms are locked and perpendicular to the rest of his body. Zfdel's gnashed molars work themselves into something like a smile. He exhales.

The steel bar already seems to be warmed by his grip. As if all the stored energy he used to move the damn thing was transferred to heat and now slowly roasts the iron.

And the grunts of other lifters as their Virgin Maries and tribal bands swell with testosterone, the blasting SparkleJamz, the whir of the smoothie machine dicing bananas and protein powders, all are mute to Zfdel, who only hears his racing heart and the pounding congas pulsing from his ear buds.

His arms begin to shake. No worries, he must simply let the weight descend and begin another repetition.

Zfdel is arguably much more educated than most folk. Even he knows this, albeit with a bit of resentment. Though he had the whole process of evolution, from Darwin to Gould to Dawkins explained to him in countless biology seminars, he failed to internalize one thing: the mechanisms of selection are never at rest. Endless forms most beautiful do not emerge from the earth without some heavy losses.

What Zfdel intends to be a slow descent of the barbell is in actuality not so slow. His arms wobbling and stinging with lactic acid are no match for the heavy iron. The perfect right angle formed between Zfdel's arms and his torso grows acute. And before Zfdel can exhale, his ear buds are expelled from his ears. The smoothie girl screams, her face smeared with anything but boredom. The grunting gym folk hoot and holler like silverbacks in the Congo.

And Zfdel is silent, his face red. 200 pounds of iron at rest on his windpipe.

Part 1

“This remark provides the key to the problem: how much truth there is in solipsism.”
—Ludwig Wittgenstein, *Tractatus Logico-Philosophicus*

“Sitting like a stone in a river, all alone”
—Fucked Up, “Crooked Head”

1.1.0 — Van

A handful of children, no more than seven or eight in age played ball in the cul-de-sac. Relieved of the past school day's weight, their backpacks cast to the curbside, they yelled and hooted as they milled about. Calves tensed under hairless skin. One boy's stomach, bloated with the onset of pre-adolescent pudge, swung back and forth as he ran. A single brave girl—or perhaps a longhaired boy, her overalls made it difficult to tell—darted through them. From the hands of another she snatched the ball, a purple rubbery sphere engineered for no particular sport, and hurled it to the pavement. It bounced off the pavement in a smooth hyperbola and onto the windshield of Tak's van. From there it ricocheted onto the perimeter of a nearby lawn, dislodging some mulch and sending a squirrel zipping up an adjacent oak before coming to rest in the green. The overalls took off after the ball while the other boys, from Tak's pov seeming to follow some unsaid rule of the game, swirled in a fleet footed mosh; they screamed as they tagged one another, baring gap-toothed smiles. The fatter one face-planted onto the cracked gray, crying as he did so. When no others came to his aid he picked himself up and staggered in front of the van to catch his breath.

Tak honked his horn. Even if he wanted it to, the van wouldn't move until it registered a childfree road in front of it. And yet those little sphincters blocked him from reaching his desired coordinates: the other side of the cul-de-sac.

The one with the long hair returned, purple ball in hand. It parked itself in front of the van and stuck its tongue out at Tak, who mirrored the glottal insult and added in a second honk, this one longer than the first. This brought the children to a halt. A small pond of stares directed at him. Takashi waved his hands like, get out of here. The fat one stuck up his middle finger at him. His friends squealed and laughed, those little pricks. Takashi returned the flipping-off by an order of two. His hands off the control panel, he attempted the meanest, sternest scowl he could. He crossed his eyes, his zygomatic muscles burning with the acid of prolonged flexion. All in an effort to transmit the visage of one-who-will-not-be-fucked-with.

They laughed. He too was part of the game now.

Tak, pissed as ever, rolled down a window and leaned out. "Move," was all he said. And they did.

The van drove itself through the center of the cul-de-sac to the destination Tak had punched in earlier with his bitten in fingernails. Tak ordered it to pull a k-turn, less out of necessity than to just delay the children from further resuming their game. After backing into the driveway, Takashi pressed park and hopped out of the van.

The children, seeing that the vehicle was stationary, resumed their contained anarchy.

Takashi unlocked the back door of his van and approached the garage. He rapped his knuckles three times against the steel door.

"Delivery," he said.

And with that the garage door lifted up and receded into some hidden chasm in its ceiling.

"You're late," said Doug.

Isa, perched atop her amp, fingered the tuning key for her B-string.

“I’ll need your help with this boyo,” said Tak as he patted the side of the vehicle. The van, a gray Volkswagen. He ordered it at a pawn site based in Patterson, using money gifted to Tak by his parents in recognition of his high-school graduation. They insisted he learn how to drive it too, like, in case of emergency. The driving lessons he paid for himself, though they cost more than the van.

In the few years he drove it, the van’s grayness had aged grayer. Each acquired ding, scratch and dent was the metallic scar tissue of some past narrative. A ballsy first manual foray onto the turnpike, unaccustomed to the brutal speed of Autonomobiles®. Semi-drunken sojourns through the New Jersey backstreets. A failed attempt to command a parallel parking while stoned on some non-synth tetrahydracannabanoidal he scored from a Neo-!Kung connect. The posterior of the car was a patchwork of bumper stickers Takashi had purchased over the internet (with his mother’s debit card). They read as follows:

- **DIY or DIE**
- **Drop Beats not Bombs**
- **Up the Punx, Down the Beer**
- **Go Vegan!**
- **Mosh Counter-Clockwise**
- **Drop Acid not Bombs**
- **Let’s Go to the Pop Punk Show! (Oh-Wah-Oh!)**
- **Justice 4 Neo-!K**
- **My Other Car is a Broom**
- **This is what a Feminist Drives Like**
- **Drop Dead not Bombs**
- **Agitate, Educate, Organize**

“Did you pick up the cables?”

“What brand didja want? I forgot.”

“You’ll have to go back to Guitar Center. Isa needs them.”

“I don’t think I will be going back to Guitar Center any time soon,” said Takashi.

Doug’s collar had already begun to darken with perspiration. And it was only March.

“If this is a money thing, which I know it isn’t, I can spot you the fifteen k,” he said. “But we can’t practice without a guitar cable.”

“Uh-huh.”

“Basic electrical engineering; remember when you wanted to be an engineer?”

His glasses slid down the bridge of his nose as he spoke. He paused, cocked his chin up and let the frames fall back to his eyes before continuing. “We need a conductor to connect the guitar, which makes noise, to the amplifier, which makes said noise louder.”

“Never wanted to be an engineer DLG. If you recall I majored in physics. Math minor. Complex systems.”

“I thought you were computer science.”

“At my level they were basically the same thing.” Another wink towards Isa. Her face seemed blank. Takashi had learned this meant she was usually immersed in her Lazy Eyes. His wink went unreceived.

“You have no level.”

Takashi smacked his lips. F2Fs never were Doug's forte. "Oh I do indeed have a level boyo," he said. "And you are far from ever getting on it."

"Stop saying 'boyo'," said Doug.

"I like it. I got it from Joe Strummer."

"Who?"

"British indie rocker from the 90's. His stuff's pretty ubiquitous on the pirate forums."

Isa waved her fingers out in front, as if playing an invisible keyboard suspended mid-air. Likely thumbing through some .txt library.

The corners of Takashi's lips jolted upwards and outwards. "*Teaneck Calling*. That could be our first album."

"Christ Takashi."

"Release it only on vinyl and cassette. Nothing digital, keep it analog."

"Shit," Isa murmured. Both Tak and Doug paused. She wasn't talking to them.

"You did go to Guitar Center though?"

"I did, last night."

"You're a terrible liar, Tak."

Takashi scratched at his shirt, selecting black cotton from a blue jean coat. "Liar's not the word."

"Yeah, yeah, we've been over this."

"I am incorrigibly honest this time, Douglas."

"Today is Monday."

"And yet I'm up before sunrise."

"So yesterday was Sunday."

"That makes sense," said Tak.

"You couldn't have gone to Guitar Center yesterday. Blue laws, everything in the county was closed."

"And yet, I did somehow visit that famed omniplex for stringed instruments."

"How'd you get in?"

"A brick."

"Excuse me?"

And with that Takashi retreated back into his van, watching the two from the corner of his eyes. Doug, shirt slowly saturating with sweat, allowed himself a few quick tugs at his collar to circulate cool air along his torso. He turned to Isa.

"How do you suffer this?" he said.

"..."

"On one end words, words, words; on the other quiet."

"I can suffer noise quite well."

Takashi screwed up his eyes, like, seriously. "Do you prefer Zildjian or Sabian, Doug?" his voice, a lithe tenor, cut through the suburban air.

"I have no preference. Why?"

"Major untruth Ganoush. I know you have a preference for everything."

"I've played on both, but honestly I've never been able to afford a choice."

"H'okay. You'll have to settle for both." Takashi emerged from the van sporting a Cheshire grin, a slender box of crash cymbals tucked in each armpit. "Help me move these into the garage Isa."

Now Doug and Isa were both pinioned into silence.

Isa rose from her seat, stepping carefully over her guitar. Her face, placid and monk-like, remained unchanging as she approached Takashi and took the two cymbal boxes from him.

“Rides are still in the car, let me get ‘em,” Tak said. “Could you stack those by the drum set Isa?”

Isa brushed past Doug on her way back into the garage.

“Tak, I don’t know what to say,” said Doug.

“Happy Ramadan, boyo.” He emerged from the van, ride cymbals in hand. “They celebrate Ramadan in the spring, right?”

“Ramadan was months ago.”

“Hmm...Diwali?”

“Not sure.”

“Isa can look it up.” He retreated back into his car. “Good news Doug! I remembered the cables.” He popped out again and tossed Doug four different coils of varying lengths supplemented by a tertiary wink before retreating

“I don’t get this Tak. What happened?”

“Diwali is the Hindu festival of lights. It usually occurs between October and December,” Isa read off her Lazies.

“Well I’m pretty sure Kurt Cobain was either born or killed himself around this time, so, bon anniversaire monsieur Cobain!”

“I’m serious, Tak. Did you steal someone’s social security pin again?”

“I would never steal from individuals, Doug,” Tak replied. “So not punk.”

“Then how—“

“And don’t think I’ve forgotten you Ms. Spines, on this glorious remembrance of grungers past. I know you’re a Gibson girl, but wait till you see this Fender I got for you.”

From the van Takashi unsheathed it: a powder blue Jazzmaster. Like some Templar of yore, brandishing a sword of hyperbolic power Tak raised the guitar above his head in triumph, the sunlight ricocheting off its finish.

“I’m at a loss for words,” said Isa.

“You always are my dear,” said Tak as he crossed the driveway and handed her the guitar.

“Answer me Miyagi. Where did you get this shit?”

“First of all, its Miyagi-Edelstein Mr. Lamarck-Ganoush. Secondly, I would prefer if you do not refer to such quality music gear as *shit*. As both a tech-geek and a fellow split-surnamed I expect more from you.”

“Where is this from?”

“I told you, Guitar Center.”

“And how did you get it?”

“As I said, with a brick.”

Several geese flew overhead, returning home for the warmth.

“Fuck, Takashi.”

“By the way Isa, the Jazzmaster is only part of your gift. I’ve got a stack in the back. One hundred fifty watts. Pure tube-age.”

“You stole this?” Tak could see Doug fight the urge to point at him in condemnation.

“And effects too.” Takashi returned once again to the van. “Let’s see. I’ve got three different fuzz pedals. Distortion, overdrive, analogue delay, digital delay, phaser, wah, auto-wah, sustain, flange, tube distortion, chorus, echo, reverb, another fuzz pedal, and a few I’m not sure about.”

“How can you be so nonchalant?”

“Oh and a ring modulator too.”

The sunlight and heat became too much for Doug. He retreated into the cool shade of the garage. He sat back down at his throne and held his stomach, which peaked out under his t-shirt lapped over the waistband of his jeans. Eye closed, he began to take several deep breaths. Isa approached the van’s thorax where she inspected the bounty of pedals.

“Do you mind if I tweak some of these?”

Isa shook her head.

“I’m thinking of swapping out the capacitors in some of these distortion pedals. Well get a wider breadth of tones that way.”

Isa picked up a half-size red Epiphone and weighed it in her hands.

“I got a bunch of those cheap-o starter guitars. I saw this Sonic Youth show in McCarren Park. They took all these shitty guitars and tuned ‘em to open chords I guess. They plugged ‘em in and laid them against their amps for some extra feedback.”

Isa leaned the guitar on the side of the van.

“I figure we could do something similar.”

Doug’s attempt at deep-breathing morphed into a brief spasm of coughs. “How could you? Sonic Youth broke up when you were in diapers.”

“I didn’t say I saw them *live*. I saw a video of them. Y’know, that internet thing?”

Doug pursed his lips before speaking. “Listen Tak, I’m not mad. Know that,” he said. “I’m just *concerned* that you seem so confident in this. You don’t think anybody could’ve seen you or caught you on camera or something?”

“I’ve been scoping the place out for months now. No cameras.”

“An alarm didn’t go off when you broke the window?”

“I’m sure if I broke through the front windows something would’ve sounded, yeah. But they store all there stuff on the second floor above the showroom. The window I went through was definitely not armed.”

“I just can’t help but feel you’re being reckless.”

“Of *course* I’m being reckless, Ganoush,” Takashi ran a confident palm through his thick dark mop. “But recklessness does not always equate with thoughtlessness.”

“In your case it usually does.”

“Usually. That’s the key word their Lamarck. But not always.”

“Probability would suggest though—

“Then we’re talking about a capital-O Outlier here. I have a plan.” Another palm bifurcated his mane. Doug, caught in the too-human predilection for synchrony, mimicked Tak. A sweat-stained armpit was revealed and a small snowfall of dandruff fell before their eyes.

“Okay.”

“So I haven’t crunched any numbers yet, but I assume we have somewhere in the neighborhood of two or three billion dollars worth of equipment in my van, right?”

“Right.”

“I figure I’ll take some of this stuff, spend some quality time with my soldering iron and give all the electronics an upgrade.”

“This doesn’t seem like much of a plan, Tak.”

“It’s all basic electrical engineering. I can handle it.”

“That’s not what I meant.”

“I figure between all these effects, coupled with our musical expertise, could give us a really interesting noisy-shoegaze kinda sound.”

“Still not a plan.”

“It’s totally a plan, Doug. When did the last good shoegaze album come out? Nineteen-ninety-something? We’re breathing life into a dead genre, all the while assembling a new, cutting-edge style. The zines will love it.”

“Zines? Who the fuck reads zines? Who the fuck even *says* the word ‘zine’ anymore? Takashi, we are well into the twenty-first century here. People read g-blogs and .txts and whatever.”

“People totally still read zines, and pretty soon they’ll read about *us*.”

“Tak, I don’t know what synthetics you’ve been huffing, but get with the decade. Things that peaked in the eighties and died now should stay that way. Dead.”

A yawn from Isa, who lay supine on the garage floor. Her fingers extended, wiggling about, probably fucking around with an avatar on one of her games.

“You fail to see what I’m visioning Doug, I’m—

“When I said ‘plan’ Takashi, I didn’t mean how we’ll climb the punk rock ladder to underground stardom. I meant a thought-out model for how you plan to keep billions of dollars of stolen goods and avoid arrest.”

Isa clapped once.

“Simple. I dye my hair blonde. No one will recognize me, not that any cameras saw me.”

“What about the van Tak? Someone could have gotten a look at it.”

Takashi screwed up his eyes in contemplation. “We’ll give it a paintjob, strip off those bumper stickers and keep it off the streets for a couple months.” He smiled at Doug. “Plan created.”

“If you think that’ll work. Promise me though, if you get arrested, you won’t name me as an accessory.”

“My word is good as good.”

“Bullshit.”

“This time it isn’t.”

From over Doug’s shoulder, Tak watched the screaming children in the street, tagging one another, running this way and that. If he beat the shit out of Lamarck-Ganoush right then and there, they would all see. In all likelihood more than a few might require a couple years of therapy before they could wire out the clips of bloody-nosed Tak cursing like a tube site from their neural pathways.

“Alright. Let’s unload the van and practice.” Doug about-faced and returned to the garage.

“No way, man. I’m not leaving a wanted vehicle out on the street.”

“You haven’t drawn issue with that for the past half-hour.”
“Well I didn’t realize they might have tagged my license!”
“So take it home!”
“And drive forty-five minutes to South Orange? Not happening.”
An agitated grunt from Isa, still on her back.
“Let me store it in your garage. Just for a month.”
“Not gonna happen, Tak.”
Takashi let a brief look of worry flash across his face. A quick downturn of the lips; no more than a half second in length. “I’m sorry about this Doug. I’m really sorry.”
“Tak, it’s not my garage. It’s my mother’s.”
“Babs doesn’t use it. She lets us practice in it, I doubt she’ll even notice.”
“You have one month. By May, I want the van painted and gone.”
“Deal.” Takashi extended his hand. Doug took it.
“I don’t think the van will fit with the equipment,” Isa said.
“We’ll need a new practice space,” said Doug.
Takashi thumbed his nose. “What about that girl Isa used to sleep with at school.”
“What about her?” replied Doug.
“Doesn’t she own that venue in Hoboken. Rule 30?”
Isa snapped up, her greasy hair stayed matted up on the back of her head.
“You think she’ll let us practice there?” Doug said.
“That depends on Isa, not us.”
“Hey Isa!” Takashi called into the garage, “Are you still on good terms with that McRogers girl, the one you used ta schtupp?”
“I always considered it more akin to masturbation,” Isa replied.
“This does not bode well.” Doug removed his glasses and began to massage the bridge of his nose.
“Let’s pay her a visit,” said Tak. “ And what happens happens.”
Isa sighed. He knew she had little patience for tautologies.

1.2.0 — Hijack

The fat man in the seat next to Vreeman's sleeps noisily. His belly, a fleshy overgrowth of wiry gray hair, visible yet under the thin white cotton of his business shirt, rises and falls with each leonine snore. His chins tucked to his chest, the man reminds Vreeman of a large toddler, or whatever the hell the opposite of a child with progeria might look like. And despite the fact that his body is folded over like a question mark and it sounds like something awful is percolating in his sinuses, the man looks peaceful enough to Vreeman. Like fitful, midday airplane sleep is the best rest he's had in a while.

Takeoff seems to have a sedative effect on the plane, Vreeman thinks on this, his Very Last Flight. Though they had left LaGuardia at but a hair past noon, a good proportion of the cabin had zonked out the moment the jet engines began rumbling. There are no screaming babies on this flight—thank Jesus. Every one of Vreeman's practice trips contained at least one insufferable child, who would wail and cry and wail and cry, defiant against the ineffective coos from her red-eyed parents.

Perhaps it is because he is flying first class on this, his Very Last Flight, that Vreeman hears only the petulant sleep of his neighbor + the whooshing of the plane hurtling through the troposphere. His first time too. No more coach and economy class seating like on the practice flights. It is a rare and happy harmony when a personal indulgence and a pragmatic course of action align so perfectly. He initially chose the first class aisle seat for its easy cockpit access. Though the extra legroom + complimentary drinks felt to Vreeman far more sinful than any other aspect of this, his Very Last Flight, which he had painstakingly planned over the past six weeks.

He extracted the false carabineer from his one allowed carry-on item (a backpack stuffed below the seat in front of him) and thumbed it, casting glances over each shoulder as he did so. He had stowed it in the backpack's front pocket, just like on every other practice flight. Never once did any of the fish-faced TSA agents espy it through their whirring x-ray scans.

The fat man emits a cough + a snort, eliciting a nervous jump from Vreeman. He wraps his fingers around the caribeener, hiding it in his palm. From the fat man's fatness + the large gold belt buckle which dug into his corpulence, Vreeman could guess that he was on a return home to Dallas. His head fell from his headrest to Vreeman's shoulder. He sputters. A spindle of drool drips down from his maw onto Vreeman's breast. The archetypical bad neighbor. What a nuisance to Vreeman! Now he cannot even exit his seat and surreptitiously enter the cockpit. Not without waking the Texan, whose breath holds an alcoholic tinge. Vreeman has to wait. Alone with his thoughts, holding the weapon he may not use just yet. Reiterating The Plan in his mind over and over and over until it becomes a spinning ecclesiastical wheel, turning the sky bright with its scorching inevitability.

The Plan

**X Book 1st class tix on midday flight departing from Newark EWR on a Tuesday, Wednesday or Thursday to a destination at least 1500 miles away
X If nec. book several practice flights to familiarize self w/ routine**

- X Procure Loder XRG Stainless Steel Climbing Caribeener w/ widdling knife attachment (purchasable through “Outdoors” section Skymall magazine)**
- X Store Loder XRG Stainless Steel Climbing Caribeener w/ widdling knife attachment in carry-on luggage. If TSA gives a shit, relinquish it and procure a new one.**
- X Board flight from Tues/Weds/Thurs Newark EWR to ≥ 1500 miles away location w/ carry-on luggage**
- X Relax + Enjoy flight until maximum altitude is reached**
- X Remove Loder XRG Stainless Steel Climbing Caribeener w/ widdling knife attachment from carry-on luggage.**
- X Make sure flight attendants are in cabin’s rear**
 - Enter Cockpit
 - Brandish widdling knife attachment of Loder XRG Stainless Steel Climbing Caribeener
 - Assume control of in-flight PA from pilot
 - Announce to passengers + crew intention to commit hijacking
 - Await intervention from Air Marshall
 - Surrender self non-violently
 - Accept arrest by ground forces upon landing
 - Await media attention
 - Enjoy life as news sensation; await fanmail, hatemail and trial
 - Plead guilty
 - Live rest of life
 - Suicide self if quality of life in jail is \leq quality of life out of jail AND/OR fanmail, hatemail, general attention wanes significantly.
 - Otherwise die content with identity eternally preserved via Wikipedia/AP databases and Homeland Sec. archives

The plan is simple. An easy recipe for Vreeman to thrust himself into the epicenter of fame: the many-headed hydra of the modern media. An elegant means to have one’s face emblazoned across the retinas of every tv-watching, blackberry typing, net surfing plebe of America.

The white-hotness of fame and the slow burn out of it.

The caribeener, once cool from the constant breeze of recycled pressurized air is now warm from Vreeman’s sticky palms. The air is fresh and alive and electric in its staleness.

And glory of glories when the long smooth flight of the plane hits a caesura of turbulence! A tremor washes over the cabin. (Chthonic would be the word if the plane were not suspended in the air). Pupils flicked upwards from smartphones and laptop screens and tablets and portable gaming devices to the headrests in front of them. The attendants in their ironed navy business suits remain unfazed, handing out canned spring water and scanning debit cards with white bloodless fingers. Their mouths open and eyeballs empty, not a hint of emotion of any valence on their faces. The smallest of rumbles, but through some providence of physics enough to roll the fat man from Dallas’

head along a 180° arc, his primary chin sloshing from Vreeman's shoulder to the hard plastic shade of the window on the man's other side.

And Vreeman is unburdened. He slides out of his seat and stands in the aisle. His fellow passengers are largely asleep or having their sense-holes plugged up by something with digital.

The cockpit is open. Small planes like these are usually designed in this manner as far as Vreeman has seen. It keeps the passengers feeling safe and secure as they may freely keep tabs on their pilots. Not that any of that phylum of behavior was going on now, thankfully for Vreeman. Hell, if the passengers had shown even an iota of paranoia he probably would have marked this another practice flight and rebooked.

He locks eyes with a faraway stewardess in the coach seats. Her eyes say something but Vreeman can only feel his lips twitching and sphincter tightening and has no cognitive resources devoted to parsing her gaze. "Bathroom" he mouths. She nods and looks away, not caring that the *Fasten Seatbelts* light is on. Takeoff seems to have a sedative effect on the plane, stewardesses included.

The pilot turns his head round as much as his stiff white collar will allow. Everything about the man is thick. Jowls, eyebrows, a salty unironic moustache. What looks like a recent crew cut is already dotted with follicle regrowth. Sausage fingers grip around the half-crescent wheel.

"You can't be in here," is all he says to Vreeman. Another Texan.

In the seat to his right dozes a wiry man. His Adam's shows itself with each of his slow turbulent snores.

"Does he usually do that?" Vreeman, somewhere between a murmur and a mumble.

"Christ," the pilot withdraws a hand from the wheel and wiped meaty fingers across a meaty brow. "You do this in plainclothes now?"

The caribeener is slick with sweat. Vreeman slips a thumb under the clip, his nail against the widilling blade.

"Sheeyit. Crane! Wake-up Crane!"

The skinny man rouses with a short quiet moan, as if he is unsure whether or not he was caught in a nightmare. He blinks several confused times as he studies Vreeman, who although rather confused himself, still manages to draw slight offense at the pilot's use of "plainclothes". The navy sport jacket and slacks he wears are about the nicest clothes he owns.

"Wha?"

"Don't what at me." The pilot's pupils darted between the man called Crane and the plane's windshield as he spoke. His moustache obscured a snarling upper lip.

"Department of Transportation just witnessed you napping on the job."

"..."

"I'm sorry officer. I don't usually do this." The man's spoke at a whisper, his lips varnished with a white film of dehydration.

"..."

"I can vouch for my copilot, he has never acted like this before."

"No sir I haven't."

Vreeman allowed himself a breath to stare ahead. He had never seen a cockpit before, but his Very Last Flight was a time for firsts. The flat black brims of the pilots'

hats seemed to point forward into the aether beyond. The sky is not blue on Vreeman's last flight, but white. Endless, dimensionless white.

"I'm not Department of Transportation."

The Adam's apple of the man called Crane bobbed up and down. The pilot just shook his head like, Jesus Christ, Jesus Christ, Jesus Christ.

And here, like a ballpeen hammer to the mandible, Vreeman is struck by the indelible faultiness of his own planning. How does one announce a hijacking? Do they iterate their intentions to kill the pilots and drive and/or crash the plane? "I am here to commit and act of terrorism," sounds banal, trite. What if a "you motherfuckers!" is thrown in for dramatic effect? Still unsatisfactory. He had rehearsed **The Plan** countless times, and yet he failed to account for this essential moment.

"I'm not with the Department of Transportation," he said. A shitty opener, but perhaps a necessary one.

"Goddammit" said the pilot. The co-pilot just kept swallowing.

Vreeman's skin felt like paper. His whole body swished with a happy nausea. "I'm here to—"

"We know," said the man called Crane. He sat up in his seat and placed his hands on his wheel. His skin looked a size too small for his gaunt frame, his bones and veins seemed to push out of his body with urgency.

"With all due respect sir," the pilot now, "this is second visit Homeland Sec has paid us this month."

"What with the man who tried to sneak kerosene in his Starbucks cup last October."

"Heightened security protocol. We understand."

Vreeman turned around and peaked down the aisle. The man from Dallas still snoozed. A flight attendant a few dozen rows down caught his eye. What feels like several seconds pass by. Vreeman shrugs. The man called Crane, seeing Vreeman's back to him turns too. He gives the flight attendant an a-okay hand gesture. Her eyebrows are thin and plucked and far away but Vreeman can still see they spell anger. He turns.

"May I use the intercom?"

The two pilots share a glance. Crane bites his lower lip and the pilot almost does so himself.

"I don't see why not," says the pilot.

Another gap in **The Plan**. Vreeman has no idea how to use the intercom.

"Hand it to me," he says. "Please."

A beat. Crane leans forward and picks the black receiver off of its handle on the underside of the console. He hands it to Vreeman, who, knife in palm, runs his fingers down the black spiraling chord. Vreeman is silent.

"Uh, depress the button on the left and speak," says Crane. He speaks with an urgent sweetness. Poor guy will probably get shamed out of his job when Vreeman's testimonial is released to the public.

"Attention ladies and gentlemen." Like most, Vreeman does not like the sound of his voice. The fuzziness of the intercom channel helps though. "My name is Dennis Vreeman and, I, uh."

Crane stares ahead, miming flying the plane.

A clearing of the throat. “Sorry. My name is Dennis Vreeman and this is my Very Last Flight.”

Vreeman slouches as he stands. A bad habit he never could kick. At one time he worried that he might acquire scoliosis later in life. His chin tucked towards his chest. It gives a sort of fetal comfort. And how come all these planes have the same blue zig-zagging carpeting?

“It is my Very Last Flight because, I, uh. It is my Very Last Flight because we are all going to die. So it’s your Very Last Flight too.”

Both pilots pouted their lips, their F2Fing was undeniably confused.

“Sorry. You’re all going to die. Not like in an existential way. Not like eventually. Like in a couple minutes. So, yeah, I guess in an existential way.”

He scanned the passengers. All seated. Placid. Even sluggish. A few sleepers dotted the crowd, though most either stared straight ahead, earbuds in canals or fixated on a laptop screen.

“I’m hijacking this flight. If I didn’t make that clear.”

Even the flight attendants, blonde hair tied back in neat buns, thumbed the click-wheels of their iPods.

A thought occurs to Vreeman. A factoid from intro psychology in college. Or one of those >= 10 minute YouTube informational videos. Something about rats and levers and electrodes in the brain.

“Is this a drill?” the man called Crane said, almost frowning.

“Praise Allah,” says Vreeman and drops the intercom to the floor.

“Mutherfucker!” And the pilot jams a button that glows lime green and hurls himself to his feet, the momentum of which causes him to stumble to his side, his legs falling over one another in a sloppy grapevine, before balancing himself on the man called Crane’s shoulder and standing erect.

The Loder XRG Stainless Steel Climbing Caribeener w/ Widling Knife Attachment sets its apart from all other outdoors paraphernalia purchasable through *Skymall* magazine for its durability and unique design. The widling knife attachment is not an uncommon feature of Loder Caribeeners, though their blades do not exceed 4cm and length. A perfectly fine size for simple woodcarvings, but unacceptable for attempted acts of terror. The XRG model though, is notable for its employment of what Loder hallmarks as “Cutting-Edge Blade Telescoping Technology”. The widling knife attachment is, in essence, a blade within a blade within a blade. The three fold out of one another and may be locked into place turning the carabineer into a half-size Bowie knife.

The unfolding and locking actions take no more than a half-second, Vreeman notes as he holds the blade up to the pilot’s face.

“This is so not a drill,” he says, his whole physiology awash in the cool minty tingle of self-acknowledged badassery.

And the man called Crane shrieks in a full castrato and makes a fist a punches down a round red button on the far right of the console and Vreeman sees the blonde-haired stewardess barreling down the isle screaming “You Bastard! You Bastard! You Bastard! with a silver fork in each hand, and one older man manages to look up from his computer screen all, what the fuck?, but everyone else is still pretty zombified and either ambivalent or ignorant of the whole scene unfolding and they are cut off by the *thoomp* of a thick steel door slamming shut, sealing off the portal to the cockpit.

“Bill you shithead!” the pilot heaves.

And the co-pilot’s like, “I’m sorry! I’m sorry! Oh my God I’m so sorry!”

The thumping of distressed stewardess fists on 3 inches of solid steel. Knuckles likely bloodied pretty quickly. Vreeman can’t quiet make out what she’s screaming, something animal and atavistic filtered to a low alto mumble through the thick metal. The rodent squealing of steel-fork-on-wall scratching comes through crystal though.

Large globules of sweat collect along Vreeman’s hairline and snake downwards to his eyes, nose and lips. He brings a forearm to his mop his face, his blade a silved narwhal’s tooth extending from his nose.

The pilot, maybe a linesman in his youth, throws his mass forward and his eyeball doesn’t make much noise when it disengages from his head. Crimson on white starched collar and blue carpet. The optic nerve pulls apart like a glob of Silly Putty; not that Vreeman had engaged with Silly Putty any time in the last three decades. The eye showing itself like more of a gag gift or up-scale Halloween decoration than a human organ. Turquoise iris. The milky retina shish-kabobed on the Loder XRG, pinkish around the entry and exit holes.

Should one find themselves sans eye, Vreeman thinks, wouldn’t logic dictate that they keep their lone remaining eye open as much as possible? Sure depth perception would be nil, but at least one could have some sense of vision. The pilot though, has let logic evaporate from his mind and squeezes both eyes shut, pinkishness and tears gooping out from his empty socket. He claws at his face and makes infantile shrieks moans as he stumbles backwards and slumps by the co-pilot’s chair.

Crane is still and whitening. He cries a little bit and Vreeman thinks he can smell fear, and fear smells like urine. Vreeman jukes towards him, knife arm outstretched, the optic nerve of the eyeball dangling off the side. No reaction from Crane. Like the élan of the whole situation has triggered some ballistic behavior primitive in his skull and he will continue to cry and blubber and wet himself until Vreeman can flip an off switch and shut him down.

“Where do you wanna go?” Crane says. “Just tell me and I’ll take you there. Please just don’t hurt met.”

Vreeman wipes his blade off on the headrest of the pilot’s seat. “I don’t know,” he says.

The floor shifts beneath their feet and Vreeman stumbles forward, tripping over the bloody toddler-like pilot and falls into Crane who embraces him like an old forgotten cousin at a family reunion. The whiteness outside the cockpit window has turned into a checkered brown and green and the two roll forward on top of the dashboard, arms still around one another. Crane has difficulty disengaging from the hug: limb control becomes a doozie when one’s spinal chord is nicked by a serrated knife.

The Plan, like an awkward leftover guest at a party, ushers itself out of Vreeman’s head. It leaves in its wake a fresh mindfulness. The consuming amniotic hum of the plane in nosedive fills Vreeman’s consciousness. That and the liquid warmth of Crane spasming around him. And what a spectacular end to this, Vreeman’s Very Last Flight. To become a bellowing pillar of hellfire on a metro-Memphis freeway along with all those iPhone zombies.

1.3.0 — Fractal

Doug's old sedan sputtered and snorted down the interstate as the three rode south. Driving a manual on I-95 required a degree of audacity even Doug had trouble mustering up. What with all the Automobiles® zipping along at one, two hundred miles per hour, their passengers napping or chatting or playing the simple onboard games luxury vehicles came equipped with. And Doug, who never thought of himself as a bad driver, still had trouble navigating his hip little jalopy at anything faster than 75.

The blue sky and sunshine had given way to a light rain. Doug had the wipers on full blast as he hydroplaned down the highway. He leaned forward; his nose no more than a five or six inches from the windshield in order to best make out any other cars ahead. Riding shotgun was Takashi who browsed through Doug's old CD collection, likely vexing himself for getting thoroughly out-vintaged by Lamarck of all folk. Isa, in back, had projections the size of a pizza box coming from her Lazy Eyes. Likely out of courtesy, Doug among others could feel slighted when another spends too much time in private viewing. The lasered square spread across her lap as she typed to herself, pausing now and then to draw quick little curvy lines in the window's condensation. They lay across the windows like earthworms squashed on the sidewalk on a rainy afternoon, or parenthesis in a complex recursive equation.

"Which would make a more appropriate listen right now," Tak asked, "The Raincoats or The Wipers?"

"Who?" said Doug and Takashi smiled with relief.

"I'm not, like, a jazz guy you know?"

"Not just jazz, Miles Davis. One of the greats."

"You sound like a dad."

"It's my Mom's album actually."

"I just thought if the three of us were listening to music together, we should listen to the type of stuff we play, right Isa?"

"I'm fine with this," she replied.

"You should give this a shot, Tak," said Doug. "Miles was your kind of guy: innovative, prolific. He was on the receiving end of more than a few punches too."

"From who?"

"Friends, enemies, drug dealers, cops. Especially cops."

Takashi stroked his chin thoughtfully. "I'm intrigued," he said. "Raise volume."

"It's a manual Tak. From 2011. No voice recognition."

"Shit," said Tak. "How do I do this?"

"The knob on your left."

Tak turned the volume knob clockwise. "Straight No Chaser" came on full force. The three rode on and listened wordlessly to the sextet. The simple melody modulated into complexity. The bass line grooved on, coated by undulating horns. Miles' solo was first.

"Interesting," Tak said, breaking the mutual silence.

Doug smiled. "You like it?"

"I didn't say that, I just said it was interesting."

The music continued to play, underscoring the conversation.

“You know it’s all improvised on the spot,” said Doug, swerving a bit to avoid a boxy minicar. “Fresh off the back of the skull.”

“Specifically the medial prefrontal cortex,” Isa added.

Doug and Takashi said nothing.

“It’s the part of the brain that causes self expression. Verbally and musically.”

Doug withdrew his face from the windshield. “A part of the brain *causes* this?”

“A network of neurons, yes.” Isa again, her eyes affixed out the window.

“Materially, thought is a composite of neural firings. Neurons work according to the laws of biology. Biology is applied chemistry. Chemistry is applied physics. Physics is applied math, and math is little more than logic. Those are the basic tenants of reductionism.”

Coltrane took the mic, ripping a dizzying array of notes from his saxophone.

Takashi spoke first.

“So this is all from—”

“As I said. The medial prefrontal cortex.”

“But that all boils down to computation essentially s’what you’re saying.”

“Logic is the grammar of the world,” Isa responded.

Doug craned his neck around as he changed lanes.

“Makes sense to me,” said Takashi.

Doug said nothing, although he drew little issue with Isa’s theory. His nervous system was one of the few parts of him that wasn’t in a constant state of disrepair. If music stemmed from some snapping synapses in the medium prefocal whatever, he thought, so much the better for him.

“Do you have a pen and paper Doug?” Tak asked.

“Going analogue are we?”

“Unless Isa lets me type it out on her Lazies. Again, pen and paper coordinates?”

“Somewhere in the back I have a notebook of graph paper. Isa might be able to see it. Why?”

Takashi massaged his brow. He did this whenever he wanted to project deep thought Doug had learned back at Google. “There’s something in here.”

Isa held out the notebook and pen. She somehow found it without ever removing her gaze from the window and her squiggling parenthesis that decorated it. Tak snatched them from her, flipped to the first blank page he could find and licked the tip of his pen. His penmanship was impossibly neat for the speed at which he wrote.

Doug quickly eyed his friend, careful not to distract himself from the road ahead.

“What are you writing?”

“Crunching numbers.”

“What part of the brain does that Isa?”

She did not respond.

Doug tightened his grip on the steering wheel. Coltrane’s solo ended. The entire band came together for one more chorus and the song ceased. The pitter-patter of the rain held in its wake.

“Play it again.” Tak did not break his concentration from his scribbings.

Doug allowed the album to start again.

“Not the album! I need to hear the song!”

“Sorry I didn’t know what ‘it’ referred to.”

“It: the song not it: the album.”

Doug skipped forward to “Straight No Chaser” and cleared his throat.

“FYI, Miles didn’t actually write this. It’s a Thelonus Monk tune.”

“Don’t care, irrelevant” was all Takashi said.

Doug constantly fought the urge to gesticulate while arguing (or otherwise dialoguing in an emotional vector) lest he reveal another reservoir of sweat in his armpits. His constant and diligent lack of gesture left him no choice but to punctuate his speech through heightened prosody and facial expressions. This led more than a few of Doug Lamarck-Ganoush’s interlocutors to project an air of austerity or Marine-level tight-assholery unto him.” It’s extremely relevant,” he said, popping all the consonants. “This is the history of music.”

“History is people doing stuff guided by their brains, blah blah blah, it’s all math. Right Isa?”

Isa took a moment to stare at the cohort of parenthesis she had fingered across the window. “I wouldn’t put it that causally.”

“But you said—“

“Causality is a form of superstition.”

“Well is logic superstition too?”

Isa sat back and closed her eyes, as if to let the bebop speak for her. The endless paradiddles of rainfall, Coltrane’s leonine sax, the motherly hush of wet wheels on wetter pavement and Automobiles® Dopplering past; they all cocooned her in noise as she ran several data trees of what to say next. Her mind like a bottomless truth table, checking qs for every possible p Takashi could spew. Modus ponens and tollens employed equally in part.

“No,” she said.

“What about math!” A vein protruded from Takashi’s forehead. “And chemistry and biology and neuroscience! You are confusing the hell out of me.” He spun around to face her. “And I am not one who is easily confused.”

The Monk tune receded into silence.

“Again!”

Arm pinioned to his side, Doug clicked the disk player and restarted the track.

“I don’t think you understand where logic lies,” said Isa, her voice somewhere between austere and mystical. “Therein lies your confusion.”

“Did you seriously say ‘therein’?”

A snort escaped from Doug. “Tak’s not used to being the second-most pretentious individual in a setting.”

Takashi paused the song. “I will end you Lamarck.”

“It’s Lamarck-Ganoush, Miyagi-Edelstein.” Lamarck looked back and forth over each shoulder as he dipped off the highway.

“Logic causes any sort of mental phenomena the way the declension of a verb causes an action,” said Isa with a sort of stoned sagacity.

Takashi faced her, his lips pursed. “So math is descriptive. Nothing new there.”

“Mathematics is a language that logic supervenes.”

“Like a deep structure or someth’n.”

“And logic tells us what may or may not be the case. What can’t exist logically can’t exist at all; in the pictures in my mind or in my world.”

“Hold off on the metaphysics for one sec,” Doug interrupted. “How do I get to Rule 30 from here?”

“Keep heading down Glen for a few miles, then make a left on Washington once you hit the downtown,” Tak responded.

Isa shifted across the back seat and began parenthesesing the other window.

“So what about complexity? Or chaos?” Tak mused.

“As I said,” Isa began at the top-left corner and began working down diagonally. “If it can exist logically then it can exist mathematically. Otherwise, it is nonsense.”

“Well fine, but doesn’t the very notion of complexity sorta flip the bird to your reductionism?”

Isa locked eyes with Takashi for what most would deem an uncomfortable amount of time. “I don’t follow.”

“Well what your saying is that everything in your head can be boiled down to discrete computational events. Physically, mathematically, logically, whatever. Sorta how any substance is a composite of atomic elements. I’m not gonna dispute that, but I think you’re limiting yourself here. Like, okay, let’s say I hear this really bitchin militia tune, I dunno, something by McJagger and the Nuggets, and it totally convinces me to go vegan for a month. I guess some psychological bullshit happened to me, some circuits were rewired, I dunno. Point is, I would have found all eighty-five seconds of that song completely edge as fuck; whether I heard it on some cromagnon mp5 from the dregs of the deepnet or even on Shigehito’s goddamn PC. You follow? Each mode has a completely different physical substrates, the molecules in the room may be completely different, but the net effect is still the same: Vegan Tak.”

Somewhere inside Isa flint and iron clinked. Bright yellow sparks were released in gentle parabolas and swallowed by her cool misty interior. “But all possible events still exhibit a common syntax. The grooves on the record, the data stored on an mp3, they all must share the same logical structure to produce anything psychological. The world is made of logical atoms.”

“I’m not denying that Isa, but I think you are missing a pretty huge proverbial forest at the expense of some tiny, tiny saplings. Honestly, you would do best to drop the logic shit.”

“A good philosopher never makes *ad hominem* attacks, Tak.”

Takashi’s neck snapped ninety degrees. “Eat me Lamarck.”

“I’m just saying—“

“I’m not a philosopher. This is all math. If there is anything having a Jewish dad and a Japanese mom, both in part the Platonic forms of ‘token’ has taught me, it’s an unflinching and undying respect for the numerical.”

“Mathematicians don’t usually bring up Platonic forms in casual conversation.”

“This conversation passed the casual mark at exit 170,” he turned back to Isa who lost herself in tablet chess. “You have a good math brain Isa?”

“What entails a ‘good math brain’?”

“See, now there is a philosopher.”

Doug released a wet cough in agreement.

“Remind me. What was your major, Isa?” Tak leaned back into his seat. “Back in college?”

“I doubled. Symbolic logic and neuroscience. Minored in music.”

“We had a music minor?” said Doug, swerving left than right than left. Tak depressed a button on the stereo. Cannonball Adderly roared in mid measure, having already stretched the limits of the alto sax. Miles soon followed suit, again. “Let me show you something,” he said as the trumpet sung.

“This is the fourth time listen in a row, can we change the album?” But Doug was interrupted by a loud SSSHHHH from Takashi who continued to jot down notes as he listened.

Again, mid-solo, Tak paused the track. “Please tell me you heard that.”

“Like I said, we heard that four times over.”

“But did you *really hear* it.” Pen behind his ear, Takashi kneaded his palms in exasperation. “The lick he just played—“

“When the Saints Go Marching in,” said Isa.

“Ten points to the ex-music minor!”

“That’s not that uncommon,” said Doug. “Sampling riffs, sticking songs within songs. The jazz community has always been pretty open source. They have the same regard for copyrights as a community of anonymous internet pirates.”

“First off, good for them, information deserves to be free,” said Takashi, not one to miss a chance to wax political. “Second, that’s not what I give a shit about anyway.” He placed then pen in his mouth and uncapped it. “Look what I found out.”

“Can it wait? We’re about a block away from the venue,” Doug said.

“So park the goddamn car and bask in my all-knowing genius.”

With a stifled laugh Doug pulled into a lot on the side of a pizza joint. Across the street hung a giant black and white sign, slicked with rain. It displayed a grid with some chaotic arrangement of triangles within triangles within triangles, spiraling endlessly into themselves. **RULE 30** was spray painted in hot pink across it.

“Make this quick,” said Doug, his seatbelt cradling one of his fleshy breasts.

“You’ll want to hear this, Lamarck.” Tak whirled around and rested his elbows on the sedan’s console. He lowered the paper for the two to see. Isa scooted away from the window to better watch him.

“‘When the Saints Go Marching in’ is a simple song yeah? First thing anybody learns to play on an instrument, it just screams fourth-grade band concert. In essence it’s just a major scale ascending upwards. It’s basically the easiest song there is, next to Ode to Fucking Joy. Written out it looks like this.”

And Takashi gestured to the headline of the paper where he neatly printed:

WTSGMI



“Those are the first two measures right? Now the cool thing about musical notation is it is essentially a plot of events over time. As we read the chart we scan to the right at a constant speed and these pitches happen.”

Doug unbuckled his seatbelt. “So you’ve discovered musical notation. Cool, Tak,” he said. “Not to disturb your grand epiphany, but I’m gonna get a slice if there’s nothing more.”

“This is the tip of the iceberg, boyo,” Tak replied. “Give me ten minutes. If yr mind isn’t sufficiently blown then a pepperoni slice on me.”

“Wow, seriously, are you offering to buy me meat, Tak?”

“I said *if* Lamarck. Subjunctive statement, a conditional. Learn yr grammar.”

Even Isa turned up the corners of her mouth at that one.

“I was going to say, you owe me a hell of a lot more than a single slice considering what is sitting in my garage currently.”

“It’s Barbara’s garage, Doug, and fine. One thank-you slice for storing the equipment, including the stuff I got for you, and a second dependent on mind-blownness.”

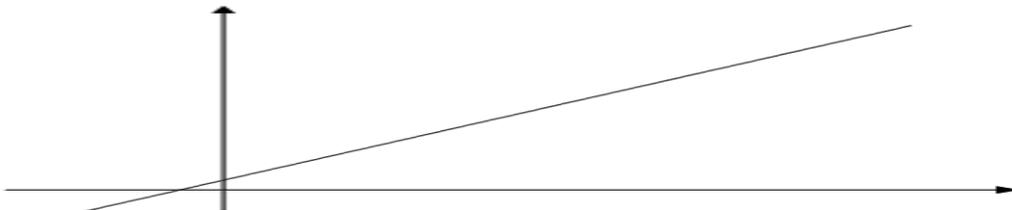
“Fair enough.”

The vein on Tak’s head reemerged. “Okay, where was I.” His nostrils flared as he collected his thoughts. “So music notation as sound-event over time. But most music isn’t like this weird autochthonic, self-generating Mobius strip arising out of nowhere. It’s got at least a player and an instrument. So between Miles Davis and his trumpet and the rest of the band, not to mention a few listeners, we have a system. The series of sounds hitting the listeners’ eardrums is some sort of output time-series. Obviously.”

Takashi grinned, panning his gaze between the two. Isa nodded. Her face, although blank, somehow managed to convey the mental turning of well-oiled mathematical cogs. Doug meanwhile stared at Tak like, the fuck?

“Okay, so, like, basically I’m saying that we could rewrite this lick as a line graph. Standard equation, $y=mx+b$. The y-axis is the pitch of the note, x-axis is time, b is the root pitch. This is middle school algebra folks. Lookit.”

And below was said simple middle-school-algebra line graph.



“That isn’t an accurate picture,” said Isa. A tiny smile was elicited from Doug.

Takashi reeled back as if he had taken a set of knuckled to the bridge of his nose.

“How so?”

Isa scanned the graph as she collected her words. “It does not reflect the song. While each note is played, the pitch is relatively constant. The rising pitch happens between the notes, not within the notes themselves.” She screwed up her eyes towards the sunroof, blurred with rain and gray skies. “A more accurate picture would look like a step function, not an unbroken line.”

Takashi exhaled through his nose. “Good point Isa. You’re right.”

“Can we get pizza now?” said Doug as he grasped the door handle.

“Fortunately, Isa, my main point doesn’t really have to change. Whether the graph is a step function or a line, it’s still extremely ordered, simple, bland. Hence fourth-graders’ proclivity to play it.”

“The picture is still inaccurate.”

“First off, Isa, it’s a *graph* not a picture. Second, as I just said, my point doesn’t really depend on the graph’s accuracy.”

If Takashi had detached himself from the spinning mathematical abstractions blooming between his ears and focused on the concrete, that is, the two other human beings who he was currently sharing space with, he perhaps would have noticed the slight shade of anger that began to color Isa's face.

"Now when Miles solos, he begins with that riff but then he expands upon it. Listen." Without missing a beat Takashi pressed play. "Hear that? What he's playing is obviously more complex, but it still sounds so, I don't know, similar to the first riff."

Between his sharp, staccato speech and the bebop raging from the stereo, a pronounced phasing affect occurred.

"Theme and variation. Basic music theory," said Doug.

"I get that, Lamarck, but I'm trying to describe something more, I dunno, *complex*. I wish I had a better ear. I tried to transcribe the solo but I couldn't get it in only four listens."

"No need," said Isa and in one motion she pulled the tablet from her pocket, extended it, typed a few keystrokes and handed it to Takashi.

The screen cast a ghostly light on Tak's face. It displayed an entire note-by-note transcription of the entire chart. He scrolled through it with his index finger.

"Ms. Spines, this is unbelievable." Takashi pulled the notebook onto his lap. He scrolled through the song, taking notes as scanned. Isa stared at the window, while Doug, discreetly as possible, picked at a wedgie creeping up his ass crack. The song was growing stale on both of their ears.

Tak placed the tablet on the sedan's console, its bright clear face available for all to see. He twisted the sedan's volume knob and the jazz faded behind his voice.

"So here we have the portion of the solo following the original riff."

Isa craned her neck and nodded. Doug, whose vision was much poorer, waited until Isa had a few solid seconds on score viewing before leaning over the tablet. His glasses began to slip from his face. He propped them up with an extended index finger.



A drop of his sweat fell from his brow, causing one of the treble clefs to swell under the drop's concavity. He muttered a quiet "Sorry" and dabbed the sweat off with the edge of his t-shirt.

"No worries, boyo."

Isa picked up the tablet. Like some birthday party magician, she procured a small shimmy cloth form seemingly out of nowhere.

“This melody is so much more intricate by comparison.” The corner of Takashi’s eyelids pinched up with glee. “The pitch varies hugely. It doesn’t stick along predetermined pathways. Bits of syncopation are thrown in, so the rhythm isn’t as patterned either.”

“That’s how all jazz works, Tak.”

“Well if that’s how all jazz works, then I’d have to say jazz is the second-most computationally kick-ass genre of music I’ve yet to hear.”

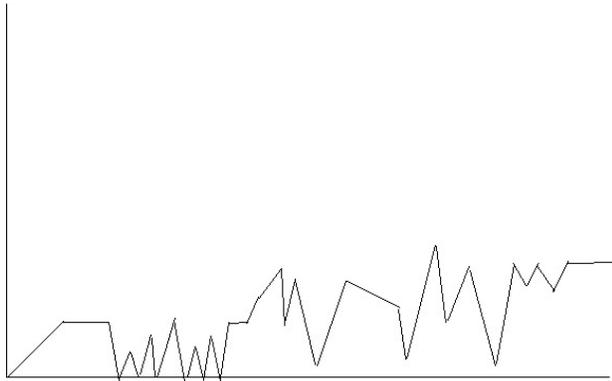
“Are we done?”

“Courtney Christ Doug, when did your attention span get so short?”

“Make this quick. I’m starving.”

“I bet you are. Remember what I was sayin’ before, how we can sketch out music as sounds over time? Well here’s approximately what this solo looks like.”

Takashi extended his notebook forward. In neat, thin pen strokes he had graphed all sixteen measures.



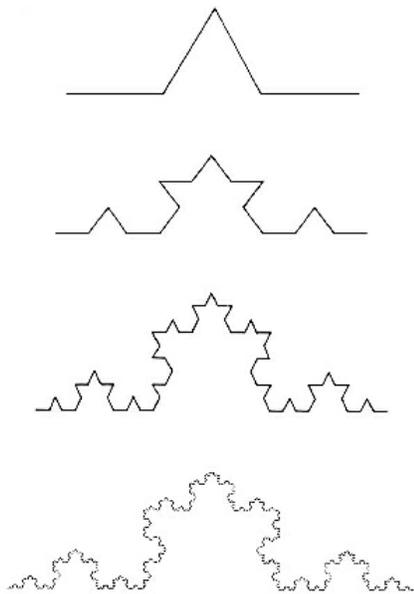
“I’m reminded of a Koch snowflake,” said Isa as she fingered a tattoo of some logical proof on the milky white of her forearm.

“Exactly!” said Takashi. His voice rocketed from its usual baritone to a high tenor. “Well, not *exactly* exactly. But pretty fucking close s’far as I can see.”

“What’s a Cock Snowflake?” Doug asked. “Is this some niche hardcore band from thirty years ago or something?”

“Not at all DLG, not at all. Imagine you have a straight line, cut out the middle and replace it with two legs of an isosceles triangle. Then you take every one of those lines, replace the middles with more triangle tips, on and on into infinity. *That’s* a Koch snowflake.”

Isa handed her phone to Doug. Displayed on the screen was the snowflake in four stages of development. It grew spiny and unwelcoming in its intricacy.



He handed the phone back to Isa. “It’s a fractal,” said Doug. “Like that.” He pointed to the sign hanging above Rule 30.

“The song is a fractal,” said Takashi. “Or, at least, it exhibits some fractal-like qualities. That though, is not a fractal. That sign is a cellular automaton.”

Doug’s face went blank with a lack of recognition.

“It’s a computer science thing; several overlapping rules generating chaotic patterns. It’s like a second-cousin to a fractal.”

Doug nodded, still fogged with confusion.

Takashi licked his thumb and turned to a fresh sheet of paper. “Cellular automata work like this. Let’s say we have an empty grid or white squares like so.”

“Uh-huh.”

“Now we have a set of rules, let’s say a space marked by a - produces an **X** in the space below it. And conversely an **X** square produces - one below.” Tak sketched on the graph paper the rules, $- \rightarrow \mathbf{X}$, $\mathbf{X} \rightarrow -$. “From this we would just have a column of alternating squares and X’s.”

“Okay,” said Doug.

“Now let’s complexify this a bit. Let’s say we up the number of rules to, like, eight. And we’ll make the qualifying states more interesting. So the state of three spaces will determine what goes below it.”

Takashi sketched the eight rules:

1. **XXX** \rightarrow -
2. **XX-** \rightarrow -
3. **X-X** \rightarrow -
4. **X--** \rightarrow **X**
5. **-XX** \rightarrow **X**
6. **-X-** \rightarrow **X**
7. **--X** \rightarrow **X**
8. **---** \rightarrow -

“Now let’s start with this blank grid but we’ll place an X in the center top square.”

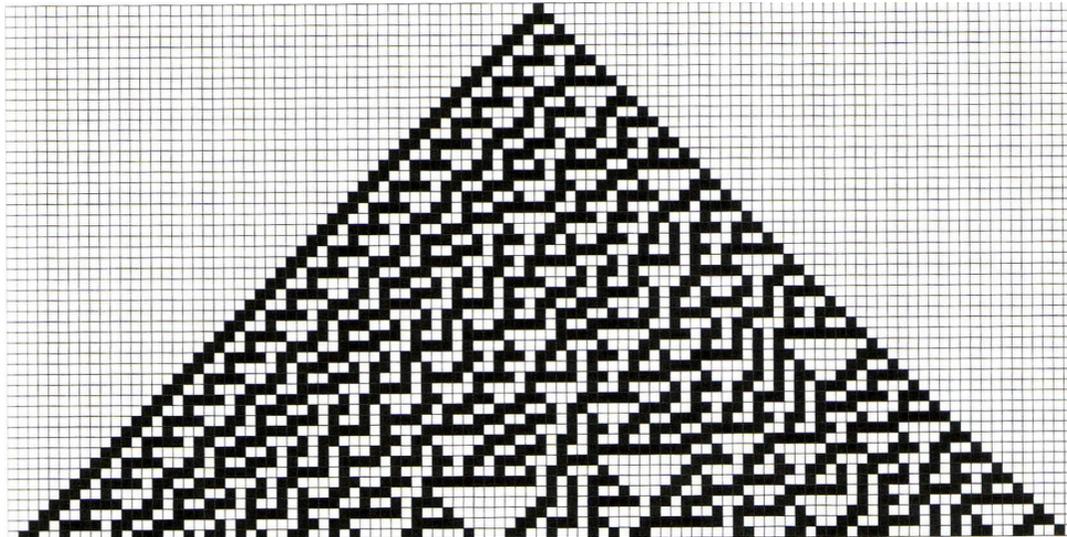
“Can we get pizza?” From inside Doug gurgled a gastric whine.

“Hold on. So following the rules we start to generate an interesting pattern.” Tak bent over the paper and scribbled the automata.

```
-----X-----  
-----XXX-----  
-----XX-X-----  
-----XX-XXXX-----  
-----XX-XXXX-XXX-----  
-----XX-X---X-X-----  
-----XX-XXXX-XXXXX-----  
-----XX-X---XXX---X-----
```

“This may not look like much, I get that, but this is one of the most basic examples of simple, determined rules generating total chaos. You carry this on long enough and you get a pattern like on the venue’s sign.”

The three looked over at Rule 30 sign. Sure enough it was an iteration of what Takashi had plotted.



“And what does this have to do with jazz?”

“Basically, I’m tryin’ a say that music gets it’s edge, its listenability, because of it’s fractal shape.”

“But Tak, it’s not like Miles knew anything about fractals or graphs or computer science or whatever the hell you’re talking about. He didn’t plan it to look like this.”

“And that’s my second point. He improvised this you said right?”

“We’ll, yeah. But I’m sure he practiced the song a ton of times. The whole band did. And parts of the solo were different licks he probably memorized.”

“Even better! You Doug of all people will appreciate this. What happens when you practice?”

“What do you mean?”

“Just tell me, when you practice an instrument over a period of time, what happens?”

Doug scratched the back of his neck. “You improve?”

“Right. It’s a feedback loop. You perform a trial run of the song, analyze your strengths and mistakes, and try again with them in mind. All this leadin’ to improvement.”

“Okay.”

“So basically, this song comes from a huge number of these feedback loops. Between Miles and his practicing, the different musicians listening to each other while the play, on and on and on. Meanwhile, the solo isn’t completely rehearsed or scripted, the song as an open structure. What I’m trying to say is that the song’s complex shape emerges from all these different factors.” Takashi turned to Isa and winked. “Like how consciousness emerges from a bunch of different neural patterns.”

Isa glanced at the sunroof. The gray skies began to give way to cerulean.

“I don’t think neuroscience works like that.”

Doug couldn’t help but let out a throaty laugh.

“So let me guess,” he said. “All this bullshit with math and fractals; you want us to play jazz now. This is some elaborate proposition.”

A thin pinkness of gums circumscribed Takashi’s smile. “Not at all, Doug. It’s the cardinal rule of complex systems: great complexity comes from great simplicity.”

“How very Tao of you Takashi.”

“Well I am half Japanese.”

“The Tao came from ancient China.”

Takashi opened his door. “I do math, not history.”

1.4.0 — Ward

1. Why they would let a paraplegic serve as a doctor is unknown to me.
 - 1.1. Although I am unsure who/what I mean by “they”.
 - 1.1.1. Perhaps a governmental bureau designed to regulate the physical or mental fitness of all medical professionals. Or a similar board of physicians.
 - 1.1.1.1. I do not know if either group exists.
 - 1.2. I am also unsure if this doctor is truly paraplegic.
 - 1.2.1. He could, theoretically, be a man who is fully able-bodied and just happens to use a motorized exoskeleton to move around.
 - 1.2.1.1. The shell encases him and allows him to walk and manipulate his limbs save his hands and fingers.
 - 1.2.2. He moves in a way that is almost human.
 - 1.2.2.1. Almost because it does not seem to me that he moves exactly like a human.
 - 1.2.2.1.1. The differences in movement between the doctor contra me show themselves even in how he stands or walks. Although, I cannot quite articulate it.
 - 1.2.2.1.1.1. I have been told that I am two standard deviations about the average degree of verbal ability for 11 year old girls.
 - 1.2.2.1.1.1.1. Whereas I am three standard deviations about the average degree of logical reasoning ability for 11 year old girls.
 - 1.2.2.1.1.1.2. I assume verbal ability should correlate with articulateness. Though, I could be wrong.
 - 1.2.2.1.1.2. Not that I am very athletic or coordinated.
 - 1.2.2.1.1.2.1. By that I mean the doctor could reasonably believe I move in a manner that is not quite human as well.
 - 1.2.2.1.1.2.2. My second foster mother insisted that I learn to play cello. As I played I would imagine my hands looking like spiders running up and down the neck.
 - 1.2.2.1.1.2.2.1. My skinny fingers seeming like the angular arthropodal legs of a spider.
 - 1.2.2.1.1.2.2.2. Not that I have witnessed any spiders running up and down the neck of my cello before.
 - 1.2.2.1.1.2.2.3. My original point being that I have witnessed myself moving in a way that was not quite human. Though, I’m not quite sure it makes sense anymore.

- 1.2.2.1.1.2.3. When I believe the doctor believes that I move in a manner that is not quite human, the doctor believes nothing.
- 1.2.2.1.1.2.3.1. What I mean is that when I think about what the doctor thinks, I am still the one doing the thinking. My beliefs of his beliefs are still my beliefs.
- 1.2.2.1.1.2.4. Though I am currently seated on a cool pleather examination chair and I am not moving much at all.
- 1.2.3. The doctor's name is Zfdel and I have met him once before.
2. The glasses he wears seem unrelated to his paraplegia.
- 2.1. He did not wear them the first time I met him.
- 2.1.1. This first time was not in his office rather than an examination room. I wore jeans and a t-shirt rather than the paper gown I'm wearing now.
- 2.1.1.1. I believe it was his office because the walls were covered with diplomas that said "Bruce Zfdel" on them.
- 2.1.1.2. He only smiled twice: when the wardens left and entered the room.
- 2.1.1.2.1. Not that he seemed necessarily like an unhappy man. Though smiling is often an indicator of happiness.
- 2.1.1.2.1.1. I mean to say when I see Dr. Zfdel smile I think to myself "Dr. Zfdel smiles because he is happy."
- 2.1.1.2.1.1.1. Or better yet, when I see Dr. Zfdel smile I think to myself "I believe Dr. Zfdel smiles because he is happy."
- 2.1.1.2.1.1.1.1. Though when I believe the doctor is happy, the doctor believes nothing.
- 2.1.1.2.1.1.1.1.1. (Ibid 1.2.2.1.1.2.3.1)
- 2.1.1.2.2. The doctor has yet to smile currently at this appointment.
- 2.1.2. He does not wear the glasses now. Instead he consults a large clear tablet which seems to display all the information he needs to access.
- 2.2. It is, of course, obvious why glasses would have little affect on a paraplegic.
- 2.2.1. Though he may not necessarily be paraplegic as well.
- 2.2.1.1. (Ibid 1.2)
- 2.3. I'm not sure if they are prescription.
- 2.4. He touches the rims with his thumb and index finger, projecting a chart that is mine.
- 2.4.1. "Mine" because it says "Isabel Spines" across the top.
- 2.4.2. Not that the chart belongs to me.
- 2.4.2.1. Firstly, I do not see the chart, rather it is a picture of a chart. I do not know what the chart actually looks like.
- 2.4.2.2. It is actually just a picture of a chart with my name on it. Not my chart.

- 2.4.3. The picture incorrectly lists my “Past Foster Units” as 4.
 - 2.4.3.1. Actual value: 5.
- 2.5. “Pretty soon I won’t even need these frames. They’re coming smart contact lenses.”
 - 2.5.1. I don’t reply.
 - 2.5.2. But now I see a smile.
- 3. “You don’t like to speak much, do you?”
 - 3.1. I don’t reply.
 - 3.2. “Quiet type?”
 - 3.3. I don’t reply.
 - 3.3.1. Dr. Zfdel does not like silence.
 - 3.3.1.1. In that now when he reads the projection, he frowns and mumbles to himself.
 - 3.3.1.1.1. I do not know if it is still a projection, because he currently has it on ‘private browsing’ mode.
 - 3.3.1.1.1.1. I heard the term ‘private browsing mode’ from my third foster brother who had similar glasses
 - 3.3.1.1.2. Though his frowning/mumbling could have nothing to do with his like or dislike of silence.
 - 3.3.1.1.2.1. A frown is typically a picture of dislike.
 - 3.3.1.1.2.2. Of course, it is not much use to think about Dr. Zfdel’s thoughts.
 - 3.3.1.1.2.2.1. (Ibid 1.2.2.1.1.2.3.1)
 - 3.3.1.1.2.2.2. I could imagine someone frowning when happy and smiling when sad too.
 - 3.3.1.1.2.2.2.1. Meaning that what happens on the outside doesn’t relate to what’s on the inside.
 - 3.3.1.1.2.2.2.1.1. I get anxious when thinking about myself on the outside.
 - 3.3.1.1.2.2.2.1.2. I get anxious when thinking about other people on the inside too.
- 4. The syringe is long and thick, the needle wider than any other I have seen before.
 - 4.1. Of course this makes me nervous.
 - 4.1.1. “This will pinch a bit.”
 - 4.1.1.1. He is wiping iodine along my shoulder.
 - 4.1.1.2. I should say “no!” or “stop!” or “please don’t.”
 - 4.1.1.2.1. Obviously, I do not.
 - 4.1.1.3. Will the pinching happen to me or him? He does not specify.
 - 4.1.1.3.1. How does he know what my pinching will feel like? There is a word for thinking like this.
 - 4.1.1.3.1.1. “Audacity”.
 - 4.1.1.3.2. And what is the “This” that will pinch? The silver needle that is as thick as a drinking straw? Or his puncturing my skin with it?
 - 4.1.1.3.2.1. Likely both.

- 4.1.2. It does not pinch. It does not pinch. It does not pinch. It does not pinch. It does not pinch.
 - 4.1.2.1. Instead, I feel a sharp, cutting pain. The needle feels both hot and ice cold and he depresses the syringe.
 - 4.1.2.1.1. Could it be possible that this pain is what Dr. Zfdel meant by “pinch”?
 - 4.1.2.1.2. This is why I do not like speaking. Or words in general. Nobody says what they mean. It’s not that they are liars, it’s just that talking makes telling the truth impossible.
 - 4.1.2.1.2.1. I prefer silence.
- 4.2. I suppose it is impossible to give an injection without a little bit of blood seeping back in to the syringe.
 - 4.2.1. That is, the liquid injected in to my shoulder was purple and almost shimmery as if it had small flecks of quartz or confetti in it. Now it is reddish, likely with my blood.
 - 4.2.1.1. Though the liquid inside the syringe could turn blood-colored after injection.
 - 4.2.2. It is not necessarily my blood currently inside the syringe.
 - 4.2.3. Think about my blood makes me anxious.
 - 4.2.3.1. Anxiety is a bodily response to stress where I feel fluttery and energetic but also tired but also nauseous.
 - 4.2.3.2. I get anxious when I think about my blood, my guts, or any other part of my insides.
 - 4.2.3.2.1. I also don’t like to think about my outsides either, for different reasons.
 - 4.2.3.2.1.1. (Ibid 3.3.1.2.2.2.1.1)
 - 4.2.3.2.1.2. I get anxious thinking about the insides of other people because all they can show is there outsides. I get anxious thinking about my insides and I get anxious thinking about my outsides.
 - 4.2.3.2.1.2.1. I am therefore anxious all the time.
 - 4.2.4. I suppose it is also impossible to give an injection without feeling pain as well.
 - 4.2.4.1. Pain is interesting because it involves both my insides and my outsides.
 - 4.2.4.1.1. Insides: The hurting feeling of the needle ripping through my skin and nerves and muscles and poking a hole in my vein and squirting cold shiny purple into it.
 - 4.2.4.1.2. Outsides: Me gritting my teeth or crying or tearing up or even saying “ouch!”
 - 4.2.4.1.2.1. I don’t want to think about this anymore.
- 5. “We’ll now have to wait forty-five minutes.”
 - 5.1. Dr. Zfdel initially turns off the lights when he exits the room.
 - 5.2. 5 minutes later he comes back and turns them on before leaving again.
- 6. “Okay Isabel, let’s see if this worked.”

- 6.1. He depresses the rims of his glasses and a projection of a young girl whose skin is clearish shows itself in front of us.
- 6.1.1. “Clear” is not the right word, as the whole projection is tinted bluish.
- 6.1.2. You can see her organs and her lungs breathing and there are little dots running along her blood vessels all over the place. Beside her are numbers and graphs and charts always changing but I don’t know what those pictures represent.
- 6.1.2.1. He points to a series of numbers. One a fraction. They change slightly every second.
- 6.1.2.1.1. “Blood pressure and heart rate.”
- 6.1.2.2. Another figure. This one a line graph with a several jagged lines extending forward.
- 6.1.2.2.1. “That’s the concentration of various hormones in your blood.”
- 6.1.2.2.1.1. My blood?
- 6.1.2.2.2. “Estrogen, Testosterone, Cortisol. All completely healthy.”
- 6.1.2.2.3. Only now does he smile.
- 6.1.2.3. A similar chart, up by the picture’s head.
- 6.1.2.3.1. “And that is your brain activity. The brain is made up of millions of little nerve cells called neurons. They send tiny electrical jolts to each other. That tells your heart to beat, your lungs to breathe. I can see what regions are active and which ones are not. That’s a picture of you thinking.”
- 6.1.2.3.1.1. I don’t like this. I don’t feel good. I don’t like thinking about my insides or my outsides.
- 6.1.2.3.1.2. And now I’ve learned I especially don’t like looking at graphs of my insides.
- 6.2. “The shot I gave you had millions of little tiny robots. They check in on you and let me know how healthy you are. Think of them like a million little foster mommies and daddies.”
- 6.2.1. Why do I have to have this injection?
- 6.2.1.1. Was it because a jet engine fell from the sky onto their car when mommy and daddy were driving to the shore?
- 6.2.2. What is to prevent them from clogging up my blood vessels?
- 6.2.3. What is to prevent them from getting lodged in my brain?
- 6.2.4. What is to prevent them from dissolving in my stomach acid?
- 6.2.4.1. All of these questions make me anxious.
- 6.2.4.2. Of course, I do not ask any of them.
- 6.3. “If you experience nausea or have trouble sleeping or have diarrhea that’s okay. DUST can sometimes cause that for the first week.”
- 6.3.1. “Do you feel sick at all right now?”
- 6.3.1.1. I do not reply.
- 6.3.2. “Good, because my readings don’t show any abnormalities.”
- 6.3.2.1. He presses the rim of his glasses again.

6.3.2.1.1. Now a keyboard is projected in front of him. He types on it.

6.3.2.1.2. Under the picture of the girl (me???) are several lines of words I do not understand, despite having a verbal acumen two standard deviations above the average.

6.3.2.1.2.1. As he types another word is added to the list.

6.3.2.1.2.1.1. I do not know what this word means either.

6.3.2.1.2.1.1.1. A funny thing about words: very many of them I do not understand. The one's that I do I do not like to use. They are imprecise and I never can say what I want to say.

6.3.2.1.2.1.1.1.1. And by "funny" I mean strange or uncomfortable. Not something that makes me laugh.

6.3.2.1.2.1.1.2. "Funny" is a good example of a word that I know the meaning of but still do not like to use.

7. "Okay, you may get dressed now Isabel."

7.1. Dr. Zfdel leaves the room.

7.2. The paper gown is loose and the air in the room is cold.

7.3. I do not know where they took my clothes.

1.5.0 — Cyberpunk

Mickey Mallory, editor in chief, top journalist, designer, publisher, and webmaster of *Staph Infection*, (New Jersey's most widely subscribed underground zine), once described the smell of Rule 30 as "if gym sox could fart" (sic). In context though, Mallory's comment wasn't an insult to the space. The article was a review of a touring crustcore group from South Carolina. Between the band and the seventy-some-odd unwashed Jerseyans who packed the space to see them, the thick miasma of body odor they produced was a point of pride: an olfactory remnant of a brutally good show.

That though was in 2031, one year before Ruthie took over the venue for her uncle. Before she tore out the carpet, attacked the mold that grew in French Impressionist colors behind the toilet, and fixed the ventilation system. Since she became the head proprietor of the space fewer moshers passed out from heat exhaustion, though the place still somehow smelled faintly of mildew and warm Mediterranean cheese. Mallory would still pop by her weekly punk showcases on occasion. His reviews were generally favorable too.

"*Hoboken Venue Under New Management, Less Bullshit Ensues*" read the *Staph Infection* printout Ruthie had stuck to the wall by the entrance. It sparkled under the veneer of packing tape. It was the only shiny thing in the otherwise dank dungeon of rock. The walls imaged a rotation of illegible tags of bands past. Like a septum piercing on the pope, the sheet stuck out against the dingy walls of Rule 30. The crisp white of the computer paper, lined in orderly digital lettering. That against a whirling sea of the most repulsive lexemes the angsty basement-dwelling youth of the east coast could stitch together: *Phantom Boner, Diarrhea Planet, Rita Rectal & the Rug Munchers*. Not that there weren't ample scribblings from more mildly named indie ska geeks and post-pop punkers. But it was the crusters, the thrashers, the bearded guitar wizards who stapled – core at the end of every other word on their shoddily-coded album apps who seemed to sign the walls in the vilest ways.

Doug was the only one who bothered to read the laminated printout. He scanned the page as he crammed the last bit of pizza crust into his maw; a thin skein of cheesy mozz dangled off his chin. The other two gave it a passing glance as they descended the stairs into the space's atrium. Takashi stopped every now and then to read a tag of some obscure hardcore band he admired. Isa seemed lost in thought and couldn't be bothered with them. Neither acknowledged the heavy thumping of Doug's mass plodding down the stairs behind her.

The first to emerge from the mouth of the staircase was Takashi. He barely stifled a delightful squeal at the many more signatures, stickers and curses flashing across the walls. His nose not six inches from the plexiglass, he scanned each bit of graffiti slowly and diligently like a Turing machine on some ticker tape. Isa followed, the crown of her head parallel to her toes: the signature stance of a mind frozen by a kind of logically-induced ice cream headache. Doug was the last out of the staircase, and the only one who noticed the stale skunky odor and, subsequently, the man lying on the couch, dragging a thumbnail-sized joint.

"Oh, didn't mean to intrude," said Doug, his tongue heavy.

The man lay supine on a cushionless brown loveseat. A stringless acoustic guitar propped by his feet. He wore a thin *Rancid* t-shirt, which arced, gently over his domed

belly. A pale, hairy donut of fat peaked out the bottom, spilling over the waistband of his torn blue jeans. His cheeks, thick and low hanging, were clean-shaven, unlike his bald head circumscribed by a torus of salt and pepper stubble. All this above one major-league schnozz that sloped down towards a pair of cracked lips. The joint was perched between them. His hands behind his head, he managed to hit the joint without touching it in an astounding feat of stoned laziness. Its crimson tip arched up with each inhale and descended limply beneath two columns of smoke from each nostril. He only stared at Doug, puff after puff after puff.

“Oh shit! Did you guys know The Ghost Boners played here?” Takashi, oblivious.

The man’s eyes slid between Doug and Isa, who chewed at hangnail as if, should the nail become detached from her skin, some grand metaphysical truth would sit itself in the crevices of her brain. The man’s gaze settled upon her and shifted from a horizontal vector to a vertical one. His pupils rose and fell as he puffed and puffed and stared at her in the leery way balding men sometimes do.

“Wait, no, not The Ghost Boners... The Goat Boners.” Takashi stepped back from the wall and turned. “Hey Isa, have you heard of The Goat Boners?”

“Mmm, couple’a ska kids from the Oranges,” the man, eyes on Isa.

Tak was silent.

“Sorry, I didn’t see you.”

“...”

“Is, uh, Ruth here?” Doug asked. He could hear the gunky buildup in the man’s sinuses with each wheezy breath he took.

The man pulled out a soda can, occluded by the broken guitar, and stubbed out the smoldering joint.

“Ruthie McRogers?” Doug again.

“Coming!” A smooth alto chimed from the other room.

From a doorless frame across the room she emerged. Tall and thick though not ungainly, Ruthie wore a purple sundress that swelled under the cheerful round of her stomach and thighs. The sleeveless dress exposed to muscular arms with a small spray of red hair sprouting out beneath. Her left shoulder displayed a stick-and-poke tattoo of a colorless banana mid-peel. Hazel eyes sat upon a round face that seemed almost doll-like against her frame. Below them, her nose, the same high-calibur schnozz as the man on the couch, fell perfect line with her hair: a billowing mohawk of fiery curls rising above a crown of the fuzz of a buzz cut three weeks past. She held a monkey wrench in her right hand, which she bounced against her hip arhythmically as she spoke. “All apologies. I’ve gotten a bit deconditioned to that name.”

Isa ceased gnawing at her index finger and looked up.

“Good to see you, Isa.” The skin at corners of her eyes creased into friendly tritons.

Isa pulled back the corners of her mouth into a close-lipped smile. The white of her face turned beetish.

“Ruthie McRogers, you are a sight for sore eyes,” said Takashi as he instinctively (but not unconsciously) flexed every muscle in his torso, producing the slightest of ripples beneath his tight black shirt. “I meant to say hi to you last week—I was in here for the garage band from New Haven.”

“New Haven? We put up some folk act from Torrington. But that was, like, 5 or 6 months ago.” She scratched the back of her head with the wrench. “And, please, don’t call me Ruthie. Not in here at least.”

“Ah I see. What do you go by?”

“When in here I like to go by **Futurabold**. Last name stays the same.”

“Like the font?” said Takashi, his voice rising in pitch with either incredulity or admiration.

“Yup, like the font.”

“I thought that was a typo,” said Doug.

“What was?”

“The article.” Doug began to perspire in sheets. “The one above the stairs.”

“Ah so you’re the literate one here I guess. Name?”

“Uh, I’m Douglas, Doug, whatever. Normal name. Not a typeset.”

“Right, right”. **Futurabold** crossed to him and extended a hand. “Pleasure.”

Doug wiped his hand on the flank of his shorts before grasping hers. “Thanks. We actually went to UG together. We were in the same philosophy lecture I’m pretty sure.”

“Yeah? Which one?”

“Uh, Nineteenth century. Some Hegel, Schopenhauer. Mostly Nietzsche.”

“Right, right. Funny how Google threw in a few humanities into the course load. Y’know, make us feel like we were doing something with our education other than preparation for a life of corporate dronedom. Did you like it?”

“I did actually. I found Nietzsche really inspiring.”

Futurabold screwed her mouth into a smirk. “You white boys and your Nietzsche.”

Doug choked on something between a laugh and a scoff.

“I don’t understand,” Isa interrupted. “Why change your name?”

“A few years ago I assisted my thesis advisor on an ethnography he was writing on the Neo-!Kung up in Rockland. It was initially just a short research project, for the summer, but long story short I ended up joining for a year.”

“And you survived?” said Doug.

“They’re perfectly friendly people,” said **Futurabold**. “Mostly college drop-outs, sick of the modern technocracy. A few older hippies, nudists, vegans and the like too. It’s a lifestyle change, sure. No Lazy Eyes, no tablets. If you wanna eat you gotta learn how to hunt. Or at least what local vegetation isn’t poisonous.”

In one swift, liquid movement, like an expert tennis player taking the first serve at Wimbledon, the man on the couch brought a joint to his lips, lit it and hit it. The hacking wetness of his cough ricocheted across the room.

“The research was with professor Ezra Klein if any of you guys took a class with him back in the day.”

“...”

“Anthro department?”

“Well my degree’s in Evolutionary Ludology.”

A shared blankness extended across the faces of the three.

“UG had a Ludology department?” asked Takashi.

“A small one, yeah,” said **Futurabold**. “Really it was just Klein and a few students. Google was interested in the Neo-!Kung, initially because they were fucking up

any mapping cars or Autonomobiles® that drove by their encampments. Klein though proposed that the Neo-!Kung might serve as a cheap but effective security force, hence all the research into them. Really though I just chose the major so I could get a degree without having to study all that tech shit.”

“Security force?” Tak, again.

“Here,” **Futurabold** laid a hand on Isa’s thin shoulder. “Let’s go to my office shall we?” She pivoted on the balls of her feet—compact pretty shoeless things—and sauntered towards the doorway, her tush like a Lorenz Attractor, coordinates swaying side to side as she walked.

The walls of her office were a stark white and bare save the several dozen sheets of notebook paper covered in sloppy and prolix array of scribbles thumb tacked to them. In the corners laid milk crates filled with various cables, condenser microphones and power strips. The whole place smelled like air freshener and a scattered intellect. A swivel chair sat behind a cheap wooden desk cluttered with Chinese take-out boxes, an enormous PC tower and monitor on which various badly animated tropical fish swam; some free screensaver from forty years ago, Doug assumed. **Futurabold** pulled three empty milk crates from the corner and flipped them upside-down in front of her desk.

“Have a seat,” she said.

She looped around her desk, plopped herself down in her chair and clicked the screen to life. Instantly the fish disappeared, replaced by the toothy smiling face of a black-furred bonobo dotted with icons for a breadth of folders, documents and programs.

“Essentially, the Neo-!Kung attempt to live as close to a paleolithic lifestyle as possible. We sleep in yurts, hunt game and pick berries. You get the idea. The only real piece of technology we used were guns.”

Takashi laughed a bit. “Guns? How’d that happen?”

Futurabold leaned back in her chair. “Our lifestyle habits attracted a fair amount of pretty radical libertarians. They saw the Neo-!Kung as their entryway into an anarchocapitalist paradise. I don’t blame ‘em. Everything was voluntary and law enforcement were too afraid of us to bother. But when you have libertarians, you have guns. Lot’s of goddamn guns. I will admit, they made the hunting much easier.”

Doug crossed his legs, uncrossed them, and then crossed them again, rocking back and forth as he did so. The plastic sides of the milk crate left waffling patterns in the meat of his thighs. “So you came here,” he said, more wanting to prevent Takashi’s unrelenting chatter than have his voice heard. “Dropped the paleolithic life and took over this place to try to get a foothold in the music industry.”

“Sorta.” She leaned back in her chair. “I mean, I certainly don’t view myself as a primitivist any longer. Not in by any Neo-!Kung standards at least. I still do think of myself as an Evolutionary Ludologist though. Constantly trying to pin down the little games through which we operate. Always have. Basically I figure here, with Rule 30, I could at least generate some income—which is not easy for a young shebody to do these days—and help our my uncle. Give him some company.”

“That dude’s your uncle?” Takashi this time.

“Yeah, my Uncle Dee. He operated the venue before me. But he was losing a lot of money on the place so I took it over from him, changed the name, blah blah blah. He’s something of a bouncer or security now I guess.”

“Real animated character.”

“Yeah well, lithium will do that to you.”

Tak squished his lips together in that monkey-like expression of not knowing what to say.

“He’s pretty benign though. Usually stoned quiet during the off hours. When were having a gig he’ll stand by the door. Look all intimidating. It really does keep the crowd capped at a manageable level of chaos. I really wouldn’t be able to handle this operation without him. With him here I can join the crowd, talk to people, you know, conduct research.”

“Wait you’re, like, writing an ethnography about this?”

She gave Tak a quick raise of her right eyebrow. “In a sense. I’m not looking to publish anything per se. But, I figure while I’m managing the place I could spend a good amount of time studying what is either the least or most supremely interesting subcultures walking the planet today.”

“One middle-aged man?”

“The college-aged east-coast suburbanite. I mean look at this place!”

Futurabold flung out her arms forming a W with her mohawk as the central vertex. “This is as lame and shitty as lame and shitty venues go, but I’m constantly getting an obscene amount of booking requests—emails, phone calls, fucking hand-written letters sent in the *mail*— from what seems like every group four twenty-somethings who can play an old Descendents cover. You wanna know why?”

Doug palmed at some wetness on his forehead, waiting for Tak to say something. He didn’t. “Why?”

“Because, back in the tens this venue had some significance. Back when Uncle Dee ran the place. Some no-wavers too who missed the whole New York City Downtown scene they weren’t even alive to see. So this place gets half a paragraph on a few punk wikis, a couple nods in various music history tomes, and now it’s become this bastion for every band who wished they were alive to play Maxwell’s.

“See, it all boils down to the disease with these kids. You know, they’re all more or less talented musically, and, being products of the digital age and whatnot has made them top-shelf networkers. They’ve largely grown up with all the middle-class comforts their parents could afford, honed their musical acumen in their respective high school’s jazz bands, went to college where they put their collective asses to a collective grindstone on some major that ends in the word ‘studies’ and then pow!” She brought her hands down to the desk with a resounding thud. “They hit a wall, proverbially speaking. No job, boyfriend, paternal approval, whatever. So, of course, they form a band with a few of their friends from home. Friends chosen more out of geographic proximity than any sort of shared kindredness or mutual love or respect or whatever emotional mortar modern friendships are adhered by. Friends whose noses are similarly proverbially flattened from hitting similar proverbial walls. And they practice a lot and write a lot and blog a lot. And, nine times outta ten, they sound fantastic. They’re amazing at booking shows and promoting and they usually draw huge flat-nosed crowds. And, I mean, the crowds seem to have a good time. *Seem* being the key word. There’s always invariably the group that stands by the perimeter, arms folded, and watch like they’re angry at the band. More aggressive acts might get people to dance or mosh, but even then flat-nosers will pop out to post about said dancing or moshing, y’know? It’s probably to their benefit anyway. I mean, for all their musicianship, the lyrics these groups spew just royally suck. It’s a

good thing they scream most of the time or their mics malfunction. If the crowd could understand half the shit they belt out they'd probably punch the singer in the face. Or not. I don't know. Musicians our age bewilder me. No offense."

A caesura. **Futurabold** spoke like a puritan reverend. She was well beyond mere finger wagging and tongue-shaking; instead her voice rose and fell with a sort of mixolydian heatedness, like what the fuck is wrong with these people!

Doug needed to collect his thoughts, which zigzagged out in all different directions before speaking. "None taken."

Futurabold puffed out her cheeks and exhaled. Her breath stank of burnt coffee and herbal toothpaste. "Which brings me to the name change. When I was with the Neo-Kung I couldn't go by Ruthie. Not paleo enough, go figure. Instead, I was Mai. One meaningless syllable, but it sounded somewhat primitive. And with a name like that, the results were astounding. I mean, I basically acted like myself. Didn't talk as much, listened a lot more. You know, the whole non-judging observer schtick. You get what I'm saying: same signified, different signifier. But people were so much more open, friendly, trusting.

"So I figure I'd do the same here. Name myself after a font; let them think I'm some sort of postmodern cyberpunk, so indulgent in her own pretensions that they should feel guiltless in indulging theirs." She leaned forward, her elbows on her desk, her breasts cradled by her forearms. "I'll tell ya, it *works*."

From the corners of their eyes Doug and Tak shared a look: one of the rare moments of nervous synchrony that reminded them why they were still friends.

"But that's me. I'm sure you didn't come here to listen to me wax ethnographic. So what's the deal, you three wanna book a show?"

Tak spoke first. "In a sense."

"Uh-huh." **Futurabold** spun the monitor back towards herself and pressed a few keys. She typed slowly and attentively, the way a self-proclaimed "postmodern cyberpunk" would not. "According to my calendar, I have bookings every Tuesday, Thursday, Friday, Saturday and Sunday for the next eight weeks. I supposed you could open for any of them if you want." Another set of keystrokes, clunky and audible. She bit her lower lip as she typed. "Yeah, is you want to headline anything you're going to have to wait until June at the earliest. Remind me though, what do you guys go by?"

"Shackled Uterus," Tak said.

"Tak's idea, not ours," Doug added, his thumb jutting out towards Isa.

"Uh-huh".

"Yeah, I was thinkin'f going for a sorta old school Riot Grrrl vibe." A snarky yet grin spread across Takashi's face, self-assured but almost child-like in its lack of irony. "We're very fifth wave."

"There's a fifth wave now?"

"Something like that," Tak grinned nervously.

"Why? Because you have a queer shebody on bass?"

"Isa plays guitar actually." Takashi swallowed his smile. "Doug has been pushing for a name change though."

"Right, right. I remember listening to a couple of demos you put online."

"Yeah? Y'like?"

“Not bad. You do have two very competent musicians in your ranks from what I could hear.”

At this Doug smirked.

“I’m sorta new to bass guitar. I have a good ear though. I’m practicing—“

“—Which is what we came here to talk about,” Doug interrupted. “What Takashi here is neglecting to tell you is that we aren’t so much in need of a place to perform some much as we are in need of just a general place.”

“A practice space?”

“Exactly.” Doug drummed his fingers on his kneecap in neat little triplets as he spoke.

“You don’t have one? A basement? A garage? A laundry room?”

“Well, we did, but Tak made that space impossible to use.”

“I needed a place to hide my van. I’m sorta on the lam currently.”

Futurabold screwed up her mouth in a tough gnarl of pity and humor. “I’m sorry,” she said. “I’d love to help you, really, but I’m not sure I can do that for you here.”

“We have a shit ton of equipment.” Tak pulled his torso forward, his fingers clamped around the edge of the disk. Exasperation bristled out of him like spines on a sea urchin. “And I couldn’t help’s notice you don’t have too much for yourself. You let us practice here, mi gear es tu gear. For whoever you want. Touring bands, whatever.”

“I’ve done perfectly fine having bands bring their own stuff.”

“This’s top shelf stuff though. Primo shit.”

But Tak’s offers bounced off **Futurabold** like moths against a porchlight: pathologically insistent but ultimately ineffective at breaking through into that hot yellow light.

“I’m sure it is. I appreciate the offer. It’s sweet in a weird way, but—“

“—I’m talkin’ a drum kit, P.A., bass *and* guitar stacks—“

A muffled rappid of hacking coughs, like from the tarred gullet of Futrabold’s own Uncle Dee sounded across the room.”

“Is he alright?” Doug asked, ever sympathetic to respiratory malfunction.

“He’s fine. Everything is fine. You three will be fine too I’m sure. I just can’t let you use my venue for your own personal needs.” Her eyes jumped from Isa to Doug to Tak and back to Isa. “If you give a mouse a cookie he’ll want some milk. If you give three unemployed college grads a space, they’ll want spare keys, squatters rights, creative control—“

“—I’ll have you know,” Tak brought his chin to his chest and flexed his trapezius muscles. A lame attempt at alpha-male-ery by most standards. “That I am most gainf’lly employed currently. Or at least I have a steady income flow”

They locked eyes but **Futurabold** only looked at him like, so what? Tak unflexed, his hands dangling by the sides of the blue milk crate he sat on.

“C’mon. Say something Isa.”

“A banana.”

Futurabold flared her nostrils coyly. “You noticed?” She grazed her fingers over the tattoo on her shoulder. “I got it a few months ago.”

“For what reason?”

“A reminder to myself. That I’m an ape. A primate. That’s what we all are, I mean. Products of evolution. That’s my philosophy at least.”

“I don’t see what the writings of Darwin has to do with philosophy at all.”

Futurabold let Isa’s statement hang in the air a bit, the way a tennis played might let a serving toss enjoy most of its arc before smashing the yellow across the court. “It has everything to do with philosophy. Our whole evolutionary history. Our past lives as primates. They inform every aspect of our existence. Our thoughts, our languages, our cultures, our spiritualities.”

“That is reductive,” said Isa. “And not in the good way.”

“Just cuz you can’t break’t down into if p’s then q’s and, like, little pyramids of dots in between doesn’t make it false.”

“It is speculation about the distant past. That is empirically, causally and metaphysically unknowable.”

“Really Isa?” **Futurabold** tapped her feet on the ground as if to steel her against Isa. Her vagueness. Her overuse of multisyllabic jargon. All punctuated by long periods of closed-lip silence. “When I was doing anthro, there was such a huge focus on the now. On what people are, what they do. But no real discussion on how we got here or why. Not unless you were content pouring over the skull measurements of Pithecanthropus Erectus jawbones for hours on end.”

“So ‘how?’ and ‘why?’. Those are your questions. “Isa returned from the quiet.

“Yeah, well, that’s what I said.”

“I see.” She traced a tattoo on her wrist. A brown tree. Leafless. Its branches sprawling out in all directions. “Those are poor questions. You wish to articulate what cannot be spoken of.”

“Courtney Christ Isa,” Takashi lurched forward, his head in his hands, “Do you have to do this now?”

“We should probably go,” said Doug. “Nice to meet you, uh, **Futurabold**. Sorry for wasting your time.”

“No worries,” she said with a singsong exhale.

“Wait.” Tak shot up, his back erected. “I think we can help you.”

“As I said, I don’t need any equipment. Thank you.”

“How often do you bring bands in here?”

“I’ll have three or four shows a week. Of course you are welcome to come.”

“No, in here.”

“My office?”

Tak whirled his hands over his head. A tornadic affirmation.

“Usually whenever I book someone.”

“You’re undermining yourself.”

“Okay, time for you to leave.”

“Seriously. Hear me out. How many of those tags on the wall are real?”

“The graffiti? In the main room?”

“Yup.”

She blew a raspberry with her lips, droplets of spit wetting her desktop. “It’s that obvious?”

“Hey, I’m not tryin’a call you a poseur or anything. I get it. You’re an anthropologist. Trying construct a certain atmosphere. An ambience.”

“Sure.”

“Well every time you bring a band in here, into this room, you risk completely destroying it. You probably have already and don’t even realize it.”

“Excuse me?”

Tak rose to his feet. His figure, tall and winter-thin, loomed over the desk. “What kinda self-proclaimed ‘cyberpunk’,” he flexed his middle and index fingers around that word as if by bracketing it off between his digits he could highlight its absurdity, “uses a piece a shit desktop like you’ve got.”

“It’s my uncle’s. He gave it to me.”

“What OS are ya using? Mac?”

“I’m not sure what that means. It’s a PC I think. Microsoft.”

Tak gagged before whirling around her disk. He placed the tips of his fingers to the keyboard and deftly typed. “Windows Vista? Seriously? Shit’s from, like, 2005.”

“Well it serves me just fine.”

From **Futurabold**’s side Tak typed a few commands, grunting and moaning in frustration as he did so. “It’s draggin’ ass. I bet you’re not the only one it serves.” He leaned over her shoulders in a manner that might have been flirtatious if it was not saturated with Takashi’s signature vibe of aggression and dramatics. His arms enclosed her body; her mohawk cradled against his neck. He typed and clicked, typed and clicked. His finger strokes fast and masterful like those of a Baroque pianist.

“Yer Uncle’s a big fan of internet porn.”

“What?”

“And he’s not even that good at it, downloading the stuff I mean.”

“How can you tell?”

The monitor was black and littered with clusters of numbers and small almost unreadable fragments of words.

“Well, your PC is loaded with every Trojan, work and piece of malware the internet could cook up. Seriously, this thing is more virus than it is software. I hope you don’t have anything too personal on it.”

“Can you get rid of them?”

“Some, sure.” Takashi backed off and began to circle the room, his hands held behind his back, both smarmy and clerical. “But half of them’ve probably sent your name, address, credit card number and SAT scores to Bulgaria or wherever. Even an esteemed hacker such as myself may have some trouble with some of the more masterfully programmed bugs nesting in your hard drive. He stopped, his back to the rest of his bandmates. He scanned over a sheet of loose-leaf paper thumb-tacked to the wall. A to-do list from several months ago, written in crisp, pink ink. “We’ve been three sheets into the digital age for a near century now. A name change wont help you navigate the waters if you still can’t swim.” He paused and turned with a sinister grin.

“So what are you saying?”

“You let us practice here for the summer and I’ll build you one hell of a computer. Better than anything money can buy. Any visitors with half a brain for technology will be impressed when they see it. Plus, it’ll keep the vast majority of your Uncle’s pornobots at bay.” He let his offer sit. All was quiet as he retook his seat on the overturned milk crate. “The way I see it, you’ll have a mach more efficient tool for your business, and it’ll look sleek as fuck. Your chances of getting outed as the monkey-

brained technophobe you are will decrease greatly, and your charming Uncle Dee will be able to jerk it with minimal risk of damage.”

He flashed some teeth. Doug, meanwhile, writhed in his seat, either in anticipation or to hold in a fart. Isa, now that **Futurabold**'s attention had shifted to Tak, had begun browsing through various news sites on her phone. She didn't read the headline so much as let the sense data of the digital print hit her eyeballs.

Tak's smile was returned. “You have a deal.”

“A wise choice Miss McRoger. We'll be forever indebted.”

“Just don't fuck things up.”

“Fuck-upage will be kept to a contained minimum,” said Doug, “Thank you so much.”

“By the way,” Tak added. “Any idea where I could snatch some hair dye?”

* * *

The waistband of his skinny jeans, lined with various protein bars, condoms, Listerine breath strips and individually wrapped squares of artisanal chocolate, all of which he had skillfully plucked from the tall and labyrinthine dollar store shelves, Takashi waddles out. The automated doors opened for him. A plastic bag that contained three differently colored bottled of blonde hair treatment tapped against his thigh as he shuffled onto the sidewalk. The bottles, one for Strawberry Blonde, another for Vanilla Crème, and a third dubiously labeled “Extra Light Neutral”, were all paid for in full by Takashi. He planned on dumping the contents of all three into a plastic basin and thoroughly comb the emulsion into his hair. He would then watch several hours of pre-millennium music videos on his Lazy Eyes while the dye dried or whatever dyes do to dye.

Isa and Doug waited in the car. Double-parked outside the store, air conditioner on 75% strength, saturating the interior with an audible whoosh. Isa several leagues deep in techno-solipsism. Doug tapped out polyrhythms on his thighs. Four beats per measure on his right hand, three on his left. A simple drummer's exercise made simpler by repeating the phrase *Eat-Your-Goddamn-Spinach* to oneself while polyrhythmizing.

Doug Lamarck-Ganoush, as accomplished a percussionist as a musician under the age of 30 can be, undoubtedly in the upper quartile of all drummers worldwide if such an impossible statistic could be assembled. At least on the grades of technical prowess, variety of genre's that could be tackled comfortable and definitely in the willing-to-improve metric. One hell of a z-score if anybody could know it. From an intense prog-rock obsession in his early teens combined with a lack of social, romantic or academic distractions emerged a pimply-faced fifteen year old who could sound like he was born holding sticks in match grip.

Later, having to grasp the challenges of pop-punk (or whatever genre of the week Takashi stuck on him) he could rip a snare with such controlled gusto that would elicit a loose-jawed *not bad* head nod from Takashi.

“Challenges afford the opportunity to excel,” a little drill sergeant in his brain would tell him. Somewhere on his father's side he descended was from some evolutionary biologist who was still mentioned in textbooks despite getting everything wrong. Not that Doug knew much about biology or the legacy of his great-great-grandfather. But to him, survival of the fittest meant survival of those that could perceive

challenges. Out of challenges stem either failure or adaptation. Some poor hunter-gatherer charged with hunting down a gazelle for his tribe had to invent a spear right? The peacock that couldn't get a mate had to learn to display its feathers. And in such a way, the rigors of post-pop-punk could afford some tight, tight stick work.

Eat-Your-Goddamn-Spinach-ing with an expert fluency, unconscious yet born out of hours of awkward, frustrated and very much conscious hand claps in practice, Doug's thoughts wandered. A drummer and thus like most drummers, the drummer drummed and encoded the world and all that seemed to be the case into the representational modes of beat, rhythm and rest. The body a series of rhythms, himself a collection of metronomes. Or those cheesy electronic beat makers built into cheap keyboards. Respiration in and out. Footsteps, the clanging of limbs on torso, the chaffing swish of inner thigh against inner thigh. Circadian cycles. Morning micturations and postprandial defecations. Sneezes coming in threes when staring at the sun. Hiccups, eye blinks. Clicks of tongue and glottal swishings around the mouth's interior. Chewing, swallowing, peristalsis. The daily afternoon itch for masturbation, when unsatisfied culminating in a weekly nocturnal emission. Hearbeats, systole and diastole. Adjusting fractally to the rest of the bioclock.

After one middling and somewhat productive practice, Isa mentioned some study conducted in Italy. Rhesus monkeys hooked up to a complex-sounding machine. She also referred to the machine as a string of initials. He could remember neither. Some area of the brain lights up. Its lighting-up discovered by accident when the monkeys ate nuts from a bowl or watched another do the same. Further experimentation was conducted and it was found that this small and particular stratum of nerves fires for both a grabbing motion when done by both the self and witnessing others do the same.

"They fire or they don't," Isa said. "A or not A."

The neuronal underpinnings of language and empathy she explained using multisyllabic jargon-heavy syntax. To the drummer though they seemed to be more body rhythms: electric firings, sodium and potassium switches in synchrony, flexion and retraction in the muscles of the hands.

Whenever Isa spoke Doug could never fully grasp who she was speaking to. Her words always seemed to take more of the tone of a badly-performed soliloquy than actual conversation.

Eat-Your-Goddamn-Spinach. Eat-Your-Goddamn-Spinach.

The handle of the door clicked and Tak entered.

"I guess we'll have to take a couple'a trips back'n forth. To get all our shit over."

"That makes sense."

Doug just sat there. He didn't even turn the ignition.

"Are we going?"

"Yes. Sorry."

And they drove. The rain had fully subsided. The New Jersey sky above, gray and cloudy. The roads below slick and pocketed with dark puddles.

"So will we need to stop by an electronics store?"

"Why?"

"For **Futurabold**. Ruthie. Parts for her computer."

"Eh, I can get'm online. Easier that way. More time for you two to repay me."

"We're repaying you?"

“Yeah. Only, like, two thousand bucks apiece. I have to check pricing and shit first.”

The car rumbled and sputtered over the cracked bumpy road, not unlike the peptic gurglings of an unfed stomach.

“Two thousand? Tak, You never said we had to pay anything. I thought you had it covered.”

“C’mon boyo, it was implicit in my offer.”

“I have probably a half K to my name. The ATM wont even let me withdraw money I’m so broke.”

“I could always snag another credit card and use that.”

“No, Tak,” Doug stared forward, miffed he had fallen for Takashi’s oldest of tricks. Tak always dropped bombs while safely buckled in to a car in motion. When driver and shotgun passenger had their respective gazes set forward, saccading between the endless Morse code of yellow dashes on the pavement, license plates displaying puns and rebuses of varying cleverness, billboards that hung above them like missionary messages from on high. Them, the conversants, facing forward and thus relieved of the burdens of eye contact, facial decoding and synchronizations, inconvenient truths could roll of Tak’s tongue like they were written in air. Doug should have seen this coming since the door lock went click.

“Just try’n pay me within the next couple weeks.” He slung his arms over the headrest behind him, his solar plexus opened to the dashboard. “You too, Isa.”

“…”

“Y’know, a ‘thank you’ might be nice. I totally got us access to the space, meaning A) we’ll get to meet tons of bands and B) play shows all the time.”

“…”

“…”

“We need to practice first,” said Doug. “A lot. And I’m all for taking things more seriously which is why I refuse to play under the name ‘Shackled Uterus’ anymore.”

“I thought you liked it!”

“You liked it and you projected your own liking it on to me. My true feelings on the matter vacillate between eye-rolling and a decently strong degree of dislike.”

“Well what does Isa think?”

But Isa never really looked like she cared much. As long as there was music. As long as there was the slight sting of string under fingertip, the Fourier transformers in her hears assembling waves from amp, monitor and sympathetic string vibrations dousing out the thoughts of her thoughts of her thoughts of her thoughts of her thoughts.

1.6.0 — Meadowlands

That damn light above Halisdol's cubicle won't stop flickering. Piece of shit is probably incandescent, Mercato was too cheap to even order fluorescents. And how is Halisdol supposed to get anything productive done with his desk shuttering in and out of darkness, the light clicking indecisively. On a Friday no less, when a failure to finish meant weekend overtime. Sure the light might stay on just fine for an hour; let Halisdol at least get a few messages out to his consult at Big Data or maybe finish a lab prelim. Not that any requests to Mercato or even Buildings & Grounds would even be processed. This is infuriating.

In front of him is a video of two toddlers, both males born with congenital blindness. Big baby eyes being a primary vector for an affect of cuteness, their milky white retinas sapped them of any endearing qualities. To Halisdol they seemed more spectral than human. As if it matters. The studies come easier when there are no ethical palpitations throbbing be(hind/tween) his ears.

The two wear thick black harnesses around their meaty little bodies. They wear diapers and shirts; in a previous iteration, the straps had broken the skin on one toddler's belly causing it to cry/wail/bleat until it was replaced. The harnesses hung down from a large wheel on the room's ceiling. Thus both children were confined to crawl in a circle. This video was of a control case: Halisdol had managed to chart the experimental case in which both children moved forward with the encouragement of a recorded maternal voice.

Alongside the video runs a real-time tracker of rates of change in arm extension, crawling speed and leg movement. A grid of force plates had been installed beneath the carpeting they crawled on, and vectors for their movement are measured as well. Halisdol scans the infinite little vectors, kneading his toes in anticipation of some eigenvalues. Mapped together, the variables should look something patterned, ideally a nice set of eigenvectors varying in magnitude/displacement but not direction. Or so Halisdol hopes, lest his lab loses Melodica some precious government funds. Information scrolls too fast for Halisdol to read. Hopefully the funky little compiler those interns made could account for the myriad values. Halisdol really just needs to make sure no huge irregularities pop out. Or if they do, they could at least be explained in the context of every other irregularity that came about. Dynamical systems were always less about order than framing the chaos as something tangible, anticipatable.

A click and the cubicle is in shadows. The glow of the computer screen gives Halisdol's face a zombie pallor. This can't be good for his vision. Halisdol blinks twice and adjusts the brightness on his Eyes. Comfortable enough.

One of the toddlers stops. He rolls backwards on to his bottom in a caveman squat. The data go wild. Negs where there shouldn't be, thousands of off-kilter measurements in need of flooring. He taps at a few keys and switches to an experimental group. Another two toddlers. Same harness/carpeted floors. Now though a looping recording of a woman speaking to them. Cooing to them. Her voice slow, rhythm and pitch maternally exaggerated. Already they began to crawl faster. Their little arms extending fully, sausage-like fingers grabbing in to the shaggy carpet with each upward inflection of the recording. Halisdol can smell the eigenvectors.

He depresses a trigger at his station. The speakers in the crawl room begin to rotate with the mobile to give the babies the illusion that they are constantly crawling towards its source. They coo and babble along with it, sliding knees they would never see behind their bulbous diapered rears. All ready the incoming data —measurements of the entire experimental élan including force, acceleration and jerk of each limb’s movement, toddler babbles per second, and inflection of maternal speech—seems incommensurably cleaner than before. Any easy write-up for Halisdol, and perhaps even a bonus before the holiday if he can finish it in time.

Click. The strong yellow overhead lamp, combined with the lens backlighting nearly blinds Halisdol. He throws his head back, giving himself some mild whiplash as he brings his hands to his eyes. Even with lids shut his Lazy Eyes remain backlit. He tilts his head forward and removes them. Halisdol preferred to work without them generally, but the built in Mathematica applets made research all the more easy. He blinks. A line graph extends forward in front of him. A crude reading of the data would suggest a slow logarithmic ascent; but no, it zigzags up and down indiscernibly. There is a good chaos: a complexity that may seem daunting yet is easily described with some fun nonlinear equations. And then there’s randomness. This seemed to be the latter. Damn.

For situations when analysis gets too frustrating, Halisdol has an ace up his sleeve. A simple script designed to automate data retrieval, programmed to launch with only a few keystrokes. He does so and before he can say “analysis of covariance” to himself, NO SIGNIFICANT RESULTS presents itself across his screen. Halisdol predicts another Christmas at Kentucky Fried Chicken. A slow nasal inhale—simming whether or not Popeye’s may taste better this year—when the light flickers back off. The mark of a truly awful job: when a lab tech may not even commiserate with himself.

He opens his desk and removes a dropper of saline solution and lubricates his Lazy Eyes. Although the room is dark, the glow of the computer casts enough light for him to do so. With one hand he peels back his eyelids and inserts the contact over his iris. Repeats.

Perhaps the only perk to this otherwise crap job he swung at Melodica is the top-line smart lenses. Halisdol was not necessarily a fan of them himself, but once he was assigned them he could not help but become enamored by their convenience; their simplicity. He only had to think it and wink a few times and a projection of an email tablet to Mercato appears before him.

From: MMM@Melodicaindustries.com

Subject:

Date: 9/05/22 16:43:12 EST

To: EH@Melodicaindustries.com

Evander,

I request your company in my office at my earliest convenience.

Thank you kindly,

Maximillian

What a tickle in the sphincter Maximillian Mauritius Mercato is! And what an unhappy joy it is when the will to procrastinate is achieved through a trip to one's supervisor.

The eggshell walls, and dowdy navy carpets of Halisdol's laboratory seem like a design anomaly compared to the rest of the Manhattan complex. One hundred and twenty one stories of lush green living walls and ceilings. The bamboo floor has a comforting give to it when Halisdol tread upon it, cool and not uncomfortably moist (the bamboo required a constant low-grade irrigation system to stay healthy and ergo had the veneer/consistency of freshly mopped/buffed hardwood. Stalks and leaves and flowering buds thatched together in snowflaking arrays make up the walls and ceiling, spindling around a hypercompressed carbonite frame. Before the buyout by DUST inc. the Melodica tower housed a design akin to Halisdol's office. The drab minimalist décor of the white-collar office. DUST had some trouble in the early twenties appealing to the treehugging demographic—their image transmitted thoughts of desert and detritus—and thus all their locations were literally, made green. And so one morning Halisdol came to work to find construction works bent over the walls with watering cans while others installed giant reverse-tinted windows that gave the city the appearance of being cleaner and less polluted than it actually was.

This was six months ago. Apparently, R&D is a little behind to behold such architectural changes. For a regional manager coming from a company that has become a cornerstone of the modern technosphere, Mercato never seemed to have much interest in research and development.. Sure, he was a shrewd businessman, in possession of an entrepreneurial instinct blah blah blah. That's why Mercato got to come in from DUST six months ago and renovate the building, deconstruct and rebuild the whole chapter of Melodica as he sees fit. Why he gets to enjoy the view from his 80th story office while Halisdol waddles around the base of this unending corporate ziggurat.

The sudden urge to wash his face creeps up Halisdol's spine. In the men's room mirror he once-overs himself. Jaw stubbly, eyes racoonish. To cover greasy unwashed hair he wears his lucky brown fedora, despite working indoors. The ceiling and floor (the bathrooms too had yet to be remodeled) resound with the soft tinny babbles of urine hitting linoleum and water. Halisdol takes a stand at a urinal; giving at least one empty urinal's breadth on each side to prevent any possible infringement of the tacit bathroom code, and wait for a stream. Nothing. He closes his eyes. Still, nothing. The acrid stink of unflushed urine works his way up his nostrils.

When micturational difficulties arise, Halisdol likes to double numbers. 2¹ through 2¹⁰ are easy as breathing, memorized after years of urinary anxiety. Once past 2048 things become problematic and Halisdol has to start some serious crunching, usually breaking his focus from matter below the belt and freeing up a nice stream. This particular he goes to 2¹⁵ to free up. The sound of the trickle harmonized with the soft whir of the fluorescent lights. He zips, washes, makes a polite nod to a man who is inspecting his hairline in the mirror and exits.

On the eightieth floor is Mercado's office. He has the whole floor to himself. The elevator door opens and Evan is facing a cool bamboo door with MMM burned in at about eye level. It opens itself before Halisdol can knock.

And there is Maximillian Mauritius Mercado, feet up on his desk, slicing the tip off a cigar, either oblivious to or gleefully aware of what a fucking caricature of the fat-cat-

corporate-type he really is. From his Eyes he is projecting a .gif of a gaggle of Brazilian women in full Carnivale attire, undulating in a never-ending loop. Mercado does not attempt to turn off the projection or even privatize it upon Halisdol's entrance.

"Have a seat," he says, gesturing in front of his desk. There is no surface to sit on, so far as Halisdol can see.

A beat. And another. Mercado's hand still outstretched. Halisdol plants himself on the floor, his legs crossed.

"And take off your shoes," says Mercado, adding an Argentinean friction to his y. He is obliged, and yet the silence continues until Halisdol clears his throat /removes the fedora. He sits it next to him on the ground.

The whole room smells of tobacco as Mercado smokes, a habit technically banned in all ecobuildings. The ceiling is not high, though the enormous tinted windows gives the office the illusion of re(finement/gality).

"Mistakes are in the making with regards to the toddler studies." He gingerly ashes his cigar, careful to avoid setting the whole skyscraper on fire.

Halisdol swallows. "The results leave something to be desired, I suppose."

"No supposition is required." Mercado's shirt waxes full with an inhale. "The whole thing is, if I may be so vulgar, fucked. If it was up to me I would have the whole project scrapped, shredded and rolled in a leaf of tobacco from whence it may be smoked."

Boats on the Hudson outside. Their sails little pinprick polygons from Halisdol's POV.

"Just on an ideological level. I'm not a mathematician, tough I fail to see why management is so invested in your, what is it, measuring how fast these babies crawl." Mercado failed to break eye contact with Halisdol. He had the penchant for real intimidating F2F's. As if it's a requisite for all these caricatures of fat-cat-corporate-types. "You use such jargon. Phase states. Attractor basins. Fourier transformations. I read these memos and I feel as if you are trying to insult me, beguile me. I hope this is not the truth Evander."

"No sir," Halisdol replied, fighting the urge to rock back and forth autistically. The bodacious Brazilians continued to dance in front of them both.

"Alas Evander, I am merely a rook here at Melodica, forever below the King and Queen. And you, Evander. You are a pawn." Twin tendrils of smoke poured from his nose.

"You understand what I say? I make some decisions. I have moving power, material presence. I have made several keen decisions that have advanced this conglomerate immensely. Yet the burdens of our continuing business efforts do not rest solely upon my back."

"Like your canned noodles?" Halisdol, unable to contain himself.

Mercado's nostrils flare, his eyes narrow.

In the early twenties, while with DUST, Mercado had launched one of the company's first populist attempts at nanotechnology. A series of body-monitoring nanos designed to register cardiovascular stats, blood-hormone level and circadian rhythmicity. Early bots, made strictly of carbon, could interact with the body with minimum immune response, though they decayed within a manner of hours.

Sure the technology had been available for a near decade, but the FDA was reluctant to let nanotech escape from testing on orphans without the promise of some serious potential for marketability. Mercado's brilliant plan was to engineer these nanos into an edible form. Had them sprinkled over a can of high-glucose wheat noodles shaped like dinosaurs with a low-casein alfredo sauce. Each serving contained about 8.5×10^{12} nanos which, after entering the bloodstream via intestinal pilli, monitored the multiplicity of bodily functions in the (likely prepubescent) gustator. After sending a text message of the coupon code retrievable on the inner lining of the pastabots' tin to DUST, parents could download an applet to their tablet or Lazy Eyes. The applet, in bright pastel colors, presented the wakefulness, activity, latitude, longitude, white blood cell count, cortisol level, blood sugar and antibody varieties of the ingestor. The target demographic of such a product chiefly being parents of young children who wish to track the bodily states of their offspring whilst geographically separate. The dish marketed as an edible babysitter of sorts.

Conceptually all Mercado's. Perhaps, if marketed correctly, the product could have made a killing. Though Maximillian, while a smart and savvy businessmen, lacked the lexical adroitness in English (his third language) necessary to form a witty and engaging produce name. He thus coined the unfortunate pun for the product: *Chaperoni & Cheese*. Of course it bombed gloriously.

Strong and aggressive F2Fing is rare these days, Halisdol supposes. Rare enough that what should have been a failure resulting in complete corporate exile instead turns to a promotion as Vice-President of a totally different company. This, Halisdol often wonders, is why Mercado gets a penthouse office made of bamboo while Halisdol himself has asbestos insulation and malfunctioning incandescent lights. Mentet-level computational ability was default among UG grads. Interpersonal ability less so. The paycheck/office size merely followed the classic supply/demand curve.

"A joke! What a rarity from you Evander. Though I have heard it said that sarcasm is of the joke's lowest pedigree," said Mercado like, go fuck yourself. "Verily I did not summon you here for comedic relief. Had I wanted humor I assure you, *you*, Evander, would be among my last option." Mercado pauses to drag from his cigar. Wobbly smoke ringlets emerge from beneath his moustache. He then chortles a good five or ten seconds after his own wisecrack.

A woman bends over to fix a garter, her rotundity in full view. Mercado stares, as if now slightly perplexed by her presence in his office, blinks three times and the projection vanishes. The two smile together, though likely out of different vectors.

Looking up at his superior from the floor, Halisdol can't help but feel that his outstretched neck is naked, his Adam's apple in full view. That his jugular is a bit overexposed. He shifts his weight from one ass check to the other, then back again. Thin Arabic scripture rises from Mercado's smoldering butt. Halisdol leans back, his palms pressed to the floor, which does not creak no matter what he has come to notice.

"Tell me sir," he says, "Why am I here?"

The Argentinean purses his lips together, almost flirtatiously before speaking. "Evander, you know I have very little respect for your work."

"I've picked up on that, sir." Halisdol replies, scratching at his neck.

"Although this lack of affection is not entirely your fault. As stated, I have little tolerance for your discipline." A snort.

“I consider myself a learned man, Evander. One cannot successfully navigate the turbulent rivers of the marketplace without knowledge of economics, psychology, philosophy, sociology and mathematic. And as a revolutionary figure in the nascency of nanotechnology, I have had to teach myself chemistries of both organic and inorganic varieties, particle physics, human physiology, robotics and information science, not too mention the intricacies of the human palette.”

Mercado glanced out the window. New York City grew dusky, though none of its dynamical noises could be heard inside the office, only the whispered silky hum of the building’s nanotubules filtering pollutants from the outside air and poofing in a cool fresh cocktail of Nitrogen, Oxygen and carbon dioxide. Mercado nods his head than shakes it, brightening the room’s fluorescents.

“I am a man of the academy, I am fluent in seven languages. I am an intellectual. And I do not say this as hubristic exaggeration; I say this with a level of objective access to truth that comes with being a polymath. But yet, I do not understand what it is you chaoticians, do Evander. The math that is not math. Your jargon of attractors and phase spaces. It is meant to bewilder the learned and make the bewildered feel learned.”

Halsidol found himself with better posture than normal. As if Mercado’s disdain for him calcified his bones and energized his musculature.

“Alas, I have superiors who, although less learned than I, are more powerful. And they, *they*, see use for you.” Mercado removed his feet from his desk and straightened his spine. “It is my displeasure to offer you a promotion, Evander Halsidol. The president of Research & Development at our Meadowlands complex has fallen ill. The higher ups, for reasons unbeknownst to me, have asked me to offer you his position.”

A sick sweetness in Halsidol’s gut. Heart rate gleefully trouncing towards tachycardia. A strange non-sexual tingling in his gonads.

“How are your management skills, Evander? Hiring? Firing? Team building?”

“I’ve never had to hire or fire anyone, Mercado,” said Halsidol, unsure of why only now he stopped referring to Mercado as “sir”.

“As expected. I took the liberty to hire your lab manager. A recent graduate from Google, an exceptional talent by all measures.”

Mercado winks and an animation is displayed in front of them. Her name in bright bold letters. “I suggest you turn on your Eyes,” he says.

Halsidol blinks twice before thumbing the pockets of his jacket. Dammit, he left the contacts in the lab.

“Are you without them?” Mercado smoothes over his moustache with index and middle fingers. “I sing praises to the Gods that your lack of responsibility is no longer my own,” he says as he retrieves a spare pair from his disk and slides the two wet disks towards Halsidol. He stands, his legs prickly and head heavy with vassal vasovagal syncope, tilts his head back, and places each of the Lazies on his eyes. A stinging moment while his retinas remoisterize and Mercado gives him one of those flippant “sit down” waves of his hand.

The projection comes alive now that Mercado and he are in the same visual channel. “Julia Sets” floats in midair between them. Halsidol cranes his neck around a bit. The image rotates with his POV. Shit, enactive interfaces were the stuff of tech expos. Something Halsidol read about on the train to work but had never experienced firsthand.

“Julia,” says Halisdol. “Her name?”

“Why don’t you try zooming in,” says Mercado.

“Okay.” And Halisdol squints, commanding his Eyes to telescope in on the projection. This gives the name the illusion of accelerating towards him. Just as Halisdol feels as if “Sets” is about to smash into the tip of his nose, the name, like a spider egg sac, pulsing with jittery young, explodes, leaving smaller lexical fragments hanging in the midair. He pinches a cursive “Curriculum Vitae” to his upper right and expands it. Its letters disassemble and replicate spelling out:

University of Google: Class of 2031

BS — Inactive Interface, Applied Bayesian Systems, Evolutionary Robotics

Summa Cum Laude

“Triple major,” said Halisdol. “Impressive.”

“She coded the resume herself,” replied Mercado. “Verily, she should have your job.”

“Experience”, “Skills” and “Recent Publications” bobbed around Mercado’s head.

Halisdol stood, replaced his hat on his head and dusted his slacks off.

“Is the offer to your pleasure?” said Mercado.

“Absolutely,” said Halisdol, a bit lightheaded.

“You will begin Monday,” said Mercado, swinging his feet off and under the desk. He outstretched his hand for a shake. Halisdol took it. “Melodica will provide transportation.”

“Transportation?” Mercado’s palm was paradoxically leathery and greasy.

“You will be stationed at our Meadowlands center. In New Jersey. Your view of the mighty Hudson River shall be supplanted with one of the Passaic. We have kindly provided security for your crossing of the state border.”

As Mercado removed his hand Sets’ resume evaporated, replaced with a feed of what Halisdol recognized as the curb outside his apartment. There was parked a large grey van. Leaning against it were what looked like five half-nude twentysomethings. Their faces slathered with tribal paint. Submachine guns slung across their breasts.

1.7.0 — Email

From: LamarckG@gmail.com
Subject: Practice tomorrow
Date: 3/25/32 11:44:32 PM EST
To: HXCHXRTME@hotmail.net, ispines@gmail.com

Hello all. Remember, practice tomorrow at 5. Rule 30. I can offer a ride if absolutely needed.

Best,
DLG

From: HXCHXRTME@hotmail.net
Subject: RE: Practice tomorrow
Date: 3/25/32 11:46:32 PM EST
To: LamarckG@gmail.com, ispines@gmail.com

k gonna be 25-30 mins late see you then

YRS TRULY,
//T

From: LamarckG@gmail.com
Subject: RE: Practice tomorrow
Date: 3/25/32 11:50:12 PM EST
To: HXCHXRTME@hotmail.net, ispines@gmail.com

No you wont Tak.

DLG

From: HXCHXRTME@hotmail.net
Subject: RE: Practice tomorrow
Date: 3/25/32 11:50:58 PM EST
To: LamarckG@gmail.com, ispines@gmail.com

yes i will prior obligations sry

YRS TRULY,
//T

From: LamarckG@gmail.com
Subject: RE: Practice tomorrow
Date: 3/25/32 11:53:33 PM EST

To: HXCHXRTME@hotmail.net, ispines@gmail.com

How do you plan on getting to Montclair?

DLG

From: HXCHXRTME@hotmail.net

Subject: RE: Practice tomorrow

Date: 3/25/32 11:54:02 PM EST

To: LamarckG@gmail.com, ispines@gmail.com

Car asshole.

YRS TRULY,

//T

From: LamarckG@gmail.com

Subject: RE: Practice tomorrow

Date: 3/26/32 12:00:44 AM EST

To: HXCHXRTME@hotmail.net, ispines@gmail.com

Takashi,

You will be on time to practice and, furthermore, you will ride to Rule 30 with me. Your van is still in my (mother's) garage and there is no way at all you will A) have access to it or B) drive it publicly seeing as you are "on the lam" as you so put it. All apologies, but your "prior obligation" will have to be cancelled/cut short.

See you tomorrow,

Doug

PS Isa, no word from you. Can you make it?

From: HXCHXRTME@hotmail.net

Subject: Practice TODAY

Date: 3/26/32 12:01:13 AM EST

To: LamarckG@gmail.com, ispines@gmail.com

good morning

obligation canceled pick me up @ my house

YRS TRULY,

//T

PS: new band name + pedal mod complete will disclose

From: LamarckG@gmail.com
Subject: RE: Practice TODAY
Date: 3/26/32 12:10:51 AM EST
To: HXCHXRTME@hotmail.net, ispines@gmail.com

What is it?

DLG

From: HXCHXRTME@hotmail.net
Subject: RE: Practice TODAY
Date: 3/26/32 12:11:11 AM EST
To: LamarckG@gmail.com, ispines@gmail.com

pedal mod too complex to address via cyberspace but minds will be blown in due time

YRS TRULY,
//T

From: LamarckG@gmail.com
Subject: RE: Practice TODAY
Date: 3/26/32 12:13:51 AM EST
To: HXCHXRTME@hotmail.net, ispines@gmail.com

I was referring to band name suggestion.

Also, every idea you come up with does not necessarily warrant the label “mind-blowing”.

DLG

From: HXCHXRTME@hotmail.net
Subject: RE: Practice TODAY
Date: 3/26/32 12:14:41 AM EST
To: LamarckG@gmail.com, ispines@gmail.com

no more Shackled Uterus
new nome de guerre = New Ape Idea

w/r/t **Futurabold**'s banana tattoo. she's on to something.
Darwinism is the new thrash.

has a ring no?

YRS TRULY,

//T

From: LamarckG@gmail.com
Subject: RE: Practice TODAY
Date: 3/26/32 12:18:21 AM EST
To: HXCHXRTME@hotmail.net, ispines@gmail.com

Wow I actually like it. If Isa agrees we're golden.

Not sure what "Darwinism is the new thrash" means.

DLG

From: HXCHXRTME@hotmail.net
Subject: RE: Practice TODAY
Date: 3/26/32 12:19:04 AM EST
To: LamarckG@gmail.com, ispines@gmail.com

meaning is interaction between observer and observed content
see schrödinger and his zombie pussy

alt nome de guerre: schrödinger and his zombie pussy

YRS TRULY,
//T

From: LamarckG@gmail.com
Subject: RE: Practice TODAY
Date: 3/26/32 12:22:22 AM EST
To: HXCHXRTME@hotmail.net, ispines@gmail.com

I prefer New Ape Idea

Goodnight + See you tomorrow,
DLG

From: ispines@gmail.com
Subject: RE: Practice TODAY
Date: 3/26/32 05:13:37 AM EST
To: HXCHXRTME@hotmail.net, ispines@gmail.com

I will be there

1.8.0 — Pus

Among the clunky white magazine tablets neatly stashed on an accordion-shaped rack lies a single printout sheet of paper. A flier, likely left there by accident, having been swiped off a storefront window or traffic light pole before exiting the short-term memory of the swiper who left it, rests, flat, face up. It is found and scanned over several times by Lamarck-Ganoush as he finds it—strangely enough—in the waiting room of a dermatologist’s office in Lodi.

The head clinician, a Dr. Bactria, specializes in the treatment of *Acne vulgaris*. For a reasonable \$3K per hour, he kindly asks his patients (mostly pubescent males such as Doug) to strip down to their boxer-briefs and sit on a large pleather chair. From a comfortable distance, Dr. Bactria will scan his mostly naked, cold, goosefleshed and supine up and down. His eyebrows flexed, his weight resting slightly more on one leg than the other, index finger pointed against pursed lips. And smile, move over to a counter top with sink, disinfect hands, and latex them.

Alongside the patient sits a cart, papertowled and displaying what looked like baroque eating utensils designed by serial killers for politicians. Part of Dr. Bactria’s cheap hourly rates—Doug suspects—come from his no frills, low tech approach to skin care. While other clinicians may prescribe their patients some nanopills and have them zap away at their blemishes, moisten their eczema and smooth their psoriasis, Bactria prefers the use of painful, medieval tools for his procedures:

1. Pinch several squares of gauze between index finger and thumb and soak it in sterilizing solution.
 - 1.1. Though skin contact with sterilizing solution may produce a stinging sensation for some patients, it is best to always preface the sterilization with a “This should feel like a refreshing tingle” so as to assuage any anxieties they may have regarding the upcoming procedure.
2. With gauze, sterilize visible pustules, cysts, papules and wens.
3. Using steel lance, drain all nodules.
 - 3.1. Puncture followed by immediate placement of pressure to base of the cyst being the operative mode of drainage.
 - 3.1.1. Reference someone called Quentin Tarantino
 - 3.1.1.1. Who? Patient says.
 - 3.1.2. Lance may require reesterilization between drainings.
 - 3.2. Excess pus and blood may be wiped with gauze.
4. Inject all lesions with Cortisone solution.
 - 4.1. For severe *vulgaris* drainages, supplement with 300mg clindamycin injection.
 - 4.1.1. Announce to patient “the worst is over.”
 - 4.1.2. He says he feels “something not unlike only a tickle”
 - 4.1.2.1. Unusually stoic this one is.
 - 4.1.2.1.1. Say out loud. Preface with “As Yoda says,”
 - 4.1.2.1.2. Again. Who?
 - 4.2. Seem perplexed.
 - 4.3. Wipe off all excess fluid with clean gauze.

5. Ask a patient if he has history of clinical depression, anxiety or bipolarism.
 - 5.1. Say “well that rules out acutane.”
6. Hand patient a small hotel bottle of moisturizer.
 - 6.1. Instruct patient with order to “Get washed”.
 - 6.2. Before leaving scan patient over one more time.
 - 6.2.1. Comment that a change in diet would not only benefit his skin.

Doug leaves his office with the flyer folded in his back pocket and a \$90 prescription for a topical antibiotic that will make his dermis feel as if red harvester ants had begun to form a colony beneath its outer layers.

That evening he lies in bed, the foam mattress curving hyperbolically under him, and thinks. This is his ritual, the thinking. Unlike most of the fit, the skinny, the generally not-unhealthy who tend to crank out their most profound musings whilst in the shower, or jogging or enjoying solid BMs, Lamarck, a chubster, with acne across his face and chest that leaks greasy blood when even the softest of fabrics rubs against it, does most of his heavy-duty thinking in bed. Not in a going-off-to-sleep sort of mental vagabondery that most engage in. Lamarck likes to ration off his major thinking-time into one intense nightly hour. He lies in bed and draws up an outline of general topics he needs to work through, ranging in gravity from what he would pack himself for lunch the next morning to the occasional suicidal ideations of the lonely adolescent.

Doug is sixteen. His health waning, dermis riddled with infections, he finds solace in this regimented evening cognition. His body immobile, sinking into the bed and devoting much of its energy to postprandial peristalsis. Contra the extreme flexibility of his mind at work. The Cartesian duality of it. If his body breaks, well, fuck it. At least his brain works at its near-max potential. Mind over matter, to be cliché. *Mens sana in corpore afflicto*.

What he rolls over this evening, as he lay in bed, brochure sandwiched in his back pocket, well, that should be obvious. He lay and he let his eyes glaze over the ceiling, white with those white stucco phrenological lumps.

A few more years working at the Petco off of route 17. At least until college. Minimum expenditure: burgers and White Manna every weekday lunch are perhaps his main expenses. The occasional album. Music is not an issue: he could leech a torrent like a motherfucker and his Dad left him his vinyl collection that took up four milk crates and spanned from “Diarrhea Planet” to *The Very Best of Oingo Boingo*. Last year he went through a short marijuana-and-PC-games faze. Maybe set him back a solid 70K over a year or two. Still though, Doug saved up a lot of proverbial dough. What was the fee? \$650 a week? Hardly a dent in the bank account.

A sharp ache in his chest, he bears quietly. As if a secondary clindamycin injection scraped up against his clavicle. It nags at him so much his throat burns. Eyes undaunted by the prospect of tears, he watches the ceiling stucco grow blue then yellow then white.

The night soon gives way to a cold, New Jersey October morning. Crisp and wet. Barbara, his mother, not yet fully awake began to energize herself with caffeine and frequent trips to the bathroom before putting on her scrubs and grinding over to Newark Beth Israel. Tessie sits in his cage, bruxing and ignoring the Cap’n Crunch pieces left for

her. Lamarck reopens an ex-zit while shaving and yellowish goo seeps out while he eats, the flyer, below his mother's car keys.

"Really?" says Barbara Ganoush as she wipes a booger from her tear duct.

"I can cover it," her son replies.

"I'm not even sure what a Theremin is."

"It's a Russian musical instrument. You know the Beach Boys?"

"Possibly" Barbara slips more Captain Crunch into Tessie's cage.

"It makes those weird sci-fi sounds in *Good Vibrations*."

"It's an instrument?"

"Yup."

"A *musical* instrument."

"Indeed it is. Two thermo-sensitive glass tubes wired to an amplifier. You move your hands to control frequency and pitch." Doug pours himself a bowl of cereal and sits at the table by the rat's cage.

"What about the drums?"

"What about them?"

Doug wipes at the still-lacerating laceration with the edge of his sleeve. A small maroon rhododendron blooms on the cotton. "I'm not saying I'm giving up percussion. Theremin lessons will let me expand my musical horizons. It's evolution really. Use and disuse. If I want to increase my fitness I should pick up advantageous skills."

"Is this a puberty thing Doug?"

"Mom, no!"

"I don't know why a girl would ask you to play the Thermium—"

"It's not about that Mom."

"You have a lot of talents. Heaps. Start a band, girls like drummers."

"This is about me growing as an individual. No girls, social pressures, whatever. I just want to sharpen my abilities."

"You have a great gift for music."

"That's about the only gift I have."

"Oh sweetie."

"_"

(A bite of cereal.)

"_"

"Well if you want to spend your money on lessons, I can't stop you," says Barbara. "Will I have to buy you one of these things?"

"If I want to practice at home, yeah. But I can cover it. I've saved up. If I build it it'll be cheaper too."

"You can build one?"

"I'll figure it out. Learn some electrical engineering. Again, use and disuse."

"We can discuss this later. I need to get to the hospital. Don't forget to clean Tessie's cage."

And with that she was out the door, leaving her son, grinning over his sugary breakfast.

1.9.0 — Shebody

Not much noise comes from Isa. That much hadn't changed. Her breath rate always stays constant, even in the throes of what must have been vertebrae-liquefying pleasure. Consistently long deep draws through the nose and a soft whisper of CO2 out of her mouth. Her small high breasts rising from her ribs and falling in equal measure. Only Isa Spines, with her inward turn, her steely silences could make **Futurabold** doubt her fucksmanship. Her aptitude for romance, to use an antiquated term, otherwise drew tremendous accolades from those graced enough to enter her naked confidence. A master of the lost art of flirting said a blonde one-nighter from back in UG. Though any scintilla of general F2F competence could grant one mastery, **Futurabold** suspects, what with ninety-nine percent of courtship occurring via Wi-fi. One on-again-off-again militia dyke told her that she "sure knew her away around a clit," on an on-again week. Shakespeare that shebody was not.

It is Isa's fingernail, trimmed short and unpolished, tracing the outline of **Futurabold**'s banana, tickling the skin along her deltoid that lets **Futurabold** know. A tacit fascination with that simple stick-&-poke, while the shebody herself has explosive visis whorling about her arms, slithering from her ribs to her pelvic bone, framing her pert breasts and stomach. Sometimes marine life, other times long feather trees, now they are explosions of color. Neon and day glo. Toxic and stimulating. But fingers do not run across them. No, Isa sits cross-legged and hunched over the simple stationary tat. Gently reinscribing its sketchy guilelessness.

"Your fingers are soft."

"I haven't callused on my right hand."

"Mhmm."

"..."

"..."

"My picking hand."

"I figured." **Futurabold**, fighting the urge to doze off.

"..."

"Hey I?"

"..."

Isa always made witty repartee almost impossible. Cut and dry Q&A would have to suffice. "Why guitar?"

Futurabold's room smells peaty and warm. Not unlike the Neo-!Kung yurt she stayed in up by Rockland. Though the rapid paradiddles of Gatling gun fire and their smoky discharge was noticeably absent now.

"Guitar is a simple instrument. Segmented. Clear. The relationship of any one note to another is always visible."

"Isn't that true for most instruments?"

A lock of hair falls in front of Isa's brow. She takes a hand from the supine **Futurabold** and brushes it out of her face. "Perhaps."

"..."

"I feel natural playing guitar. In a happier context."

"Makes sense."

"A queer idiom."

“Makes sense?”

“Mhm.”

A ceiling fan spins overhead. The slow currents it generates cool the sweat off their bodies.

“I usually do not like my world. Guitar changes that.”

The bedsprings, old and hopelessly worn, groan as **Futurabold** rolls onto her back. The dimple on her lower back winking at Isa as it moved out of sight.

“You would say that. I’ve never seen you respond in a p-valence to anything that brings you outside of the cozy warmth of your noggin.”

“I am not stuck in my head.”

Futurabold props herself up on her forearms, the blue sheet falling from her bust. “You are *so* stuck in your head Isa. I understand it.” A smile. “For a long time I wanted to get in there myself.”

“I hate the phrase. ‘Inside my head.’ Homunculus bullshit. It’s poor grammar.”

“Ah. This game again.”

“It’s not a game.”

“No, it’s not I,” says **Futurabold**. “You’re off in your own little world and it’s not fun or playful. It’s devastating.”

“It’s not little. My world.”

“Oh no, it’s huge. Vast. Consuming.” A note of energy worked its way into **Futurabold**’s voice. She sits up further. “Why else would you choose to be stuck there?”

“I don’t choose anything!”

They share a gaze. One smiling flirtatiously. The other, **Futurabold** can see, near tears. Such an Isa thing to do, turn post-coital teasing into a Cartesian duel. The shebody is uncrackable and hence hard to resist.

“…”

“…”

“Why are you so quiet?” **Futurabold** fingers along the ridge of Isa’s ear.

“I visited Takashi’s family once. His father’s house for Passover.”

“Okay.”

“A part of the ritual is dedicated to an allegory of four sons. Each is a picture of a different kind of child. Each one is explained and then Takashi’s mother read from a book explaining how one is supposed to teach that child about their Judaism.”

“Sounds hokey.”

“I thought so at first. There is an evil son who is bitter and ironic. One must be stern and reprimanding with him. One is a simple son who requires patience and calm. Another is the genius. He is inquisitive and constantly asking questions. The parent should engage the child’s intellect and help it grow.”

Futurabold has never seen Isa this talkative. Let alone on the subject of religion.

“The last of the four is the dumb child. Though I’m sure ‘dumb’ is a unit of political correctness standing in for some for of disability or retardation. The child is dumb because it is unable to ask questions. The parent must then take the time to teach the child without any feedback from it.”

“Right.”

“I have not gone to another holiday for this reason. Why is the silent one retarded? Why is he not lauded as brilliant? He is the only one who understands the uselessness of asking a question.”

“Is that so?”

Isa turns and lifts herself out of bed. She steps into her pants and sets them to tight black denim, then pulls them up to her bony hips.

“You never seemed the religious type,” **Futurabold** says.

“I’m not. Though I do find some truth in mysticism. There is so little about my world I can speak of.”

“Your world?”

The babble of conversation in another room, muted by the concrete walls that on one side contained a rotation of white-on-black insignias and on the other are a cool lavender, filter into **Futurabold**’s bedroom. Likely roadies for the evening’s show kvetching as roadies do. **Futurabold** lifts a tablet from her nightstand, scaled down to quarter size and thumbs across its flat plexiglass. The doorknob lets out an audible snap as it relocks itself.

“Run a simulation of yourself as a Autonomobile®,” Isa says. “You have different perceptual channels, a sonar dish on the roof, cameras and proximity detectors on the front and back bumpers. You are built to sense what is around you in terms of traffic flow.”

“I’m simulating.”

Isa pulls on a white tank over her head. It hangs loose on her ectomorphic frame.

“Now imagine I turn all your perceivers inward. You no longer see the world but your own inner workings. Suspend any mechanical difficulties this may require.”

“I follow, I follow.”

“You’ll try and order your chassis, your wheels, your engine; however, it will all be in the terminology of your world. Other cars, roads, pedestrians.”

Futurabold stares at her knees, a look of open-mouthed infantile confusion on her face.

“So how am I supposed to tweeze myself apart from what I see? I am my world. It is a terrible reality.”

She leaves small elliptical indents in the carpeting as she moved about, picking up stray socks and shoes strewn across the floor.

“And so you prefer guitar, rather than something like singing—“

“I hate singing.”

“—Because you hate to speak. Unless spoken too.”

“Even that makes me nauseous.”

“So why are you talking to me?”

“I would be rude not to.”

“So I’m not, like, a figment of your imagination?”

The murmuring outside grows louder, more aggressive. Likely someone forgot to pack a cable or a drum pedal. **Futurabold** will have to deal with that soon.

“I don’t think I’m imagining you, no. You’re likely not a hallucination. But you’re not a ‘you’ either. If that makes sense.”

Futurabold’s screws her eyes up into her skull like, fuck this bullshit. “I don’t even know what that means.”

“Suppose I try to enter your mind. I do not have access to your thoughts, your emotions. So I run a simulation. I put myself in your shoes so to speak. I have several techniques for doing this, all of which revolve around my language.”

“And we’re back at the language thing.”

“I may think about how you feel. I compile clues from your body language, your verbiage, and I assemble a mental state: an impression of you. Though this **Futurabold** I create is still an assemblage of my impressions, deductions, inferences. You are a virtual machine I run on my hardware. Not a separate computer.”

“But what about me. Like the shit independent of you?” **Futurabold** clutches at her sheets that hung thick off her body as she spoke. Strange how those that are the most detached and skeptical, the superlatively aloof draw out a desperate earnestness in their others. Ironic that the confrontation with the real threat that I and You are but glottal conveniences than a solid complete truth can encourage such childish genuineness.

“You are you and I am I. Irreconcilable save for when one tries to sim the other. And what can you say about the world?” Isa shrugs, the hundreds of little muscles in her face all tensed in consternation. “Everything I see, feel, smell it’s all tainted by me. I can’t know anything without putting the me in it.” She closes her lips, salmon and dry, and swallows. “Acceptance of that and the whole universe falls into place. It becomes understandable. Or rather, you understand that anything other than introversion is, well, meaningless. No sadness, loneliness. It’s not learned helplessness. It’s peace.”

It feels as if several pints of antifreeze had been injected into **Futurabold**’s aorta. An inner shivering impossible to quell. “Where do you get these ideas from?” she says.

“I read,” replies Isa. “I’m usually streaming some text as I walk about. It’s much easier than grinding through the day to day. The trivialities.” A blink. **Futurabold** recognizes it instantly. A defense mechanism of sorts. As if, by closing one’s eyelids and reopening them she could push a refresh button on the world. Reduce socializing to net crawling.

The philosophical waxing, another defense mechanism. Like the pothead sixteen year old who imbibed herself with tetrahydracannabinoid, all to turn her hormonal thoughts of anger and jealousy and romance to something simplistic. Something Euclidean and easy to chart out. Even though years had passed, she could still recognize a tenseness in Isa that any sort of prolonged nakedness elicited. A post-coital uneasiness and, by proxy, a hyperawareness that rests itself in the central nervous system. Not that Isa isn’t generally in a state of hyperawareness. But this is not the usual recursive trapping; the thought within a thought within a thought within a whole array of thoughts Isa usually seems trapped in. This is a breaking out. A situatedness. Real and probably terrifying for her. To put back on her Lazy Eyes. To retreat in the cool comforts of the digital. That would be an affront to the anthropologist ex-lover. A shaking off; a dismissal. An act of cowardice.

“Shit,” Isa muttered.

“An acquaintance of mine kept near a gig of books in her yurt. Up in Rockland.”

Isa gropes at her pockets, pressing her palms flat against the outer meat of her thighs.

“Like *books* books. Hardcover, ink-on-paper writing. I say a ‘near’ gig’s worth because I have no way of telling. This specific acquaintance of mine got on the whole

paleolithic revival scene at a pretty young age. Never once saw a digital screen in her whole life. No phones either. Can you sim? Any entirely analogue existence. All information acquired through print or conversational channels. Had the attention span of a yogi too.”

Isa swallows as she scans the floor. “ I sim she was lonely.”

“Now when I was around,” says **Futurabold**.

Isa’s breaths grow audible. The joke missed.

“Though she seemed contented. She was alone at times I suppose. She told me loneliness was failed solitude once. I gather that’s the mindset you oughta have if you’ve decidedly avoided tablets your whole life. Now, many of us lived screenless on the compound, but that was a recently acquired form of abstinence. I mean, most of us were given training smartphones at what, seven or eight? I’ve never heard of parents who are willing to send their kids off too school without at least a basic cellphone, like, what if they get kidnapped?”

“And she read these prints?”

“Of course.”

“I was under the impression that illiteracy was mandated.”

“It’s hard to unlearn how to read. But some of the more zealous Neo !Kung’s took offense to her. A small subset of us claimed that even the slightest bit of written communication rewired the brain just so slightly away from their paleolithic ideal. Though most of our extra-tribal business required literacy so the non-readers were pretty few.”

“Ideal.” She says it slow-like, her ribs turning over to an autumnal red.

“You know, our primary state. How 95% of our evolutionary history designed us to be.”

Isa leans on one leg, her hips angling out and bony above her waistband. “How is this inferred?”

“Fossil dating, genetics research. Mostly speculation. But not sloppy work. I mean, we know that nineteen twentieths of human history was paleolithic. We lived as hunter-gatherers. Really once we started farming our culture began evolving faster than our biology. Or psychology for that matter. It’s not hard to reverse-engineer our origins. It’s logic really.”

“ I don’t think logic quite works as such.”

Futurabold emits a sigh. “Of course not. My point is we know that our brains evolved during a long period of non-literacy. Brains were not built to read, reading just harnesses certain neural structures or something. That’s your forte.”

“My forte?”

“Stripping everything I find interesting down into action potentials and vector coding.”

“Vector coding was more Takashi’s jam, as he would say.”

Her head hangs forward, the front of **Futurabold**’s mohawk hanging over her face. “Courtney Christ the two of you were insufferable back then.”

“Is that not your sin too?”

“What?”

“Reduction. You axiomatize as well. Perhaps not neurally or mathematically. But I could accuse you of stripping everything I love down to evolution. To ancient apes long dead.”

“It’s not a reduction, it’s elaboration,” says **Futurabold**. “As if you love anything.”

A purple wave, likely a facsimile of Hokusai forms along Isa’s shoulders and triceps. It collapses into itself, leaving the skin in the wake’s wake a bit more yellow than Isa’s natural tone.

“I love guitar,” she says.

“But is that truly your preference?”

“How could it not be mine?”

Futurabold smiles without teeth. Her lips, she was often told, were her best feature. Thick and eternally unchapped. They peak below her nose: a schnoz whose bubosness she often lamented during her adolescence. Not anything like Isa’s, who has an aquiline and slanted nostrils that gave her a cool tactical aura. When her hair was shorter she could pass for a Roman consul, constantly stewing over aqueduct placement or whatever.

“Of course its something you like to do. I’m not trying to take that away from you. But have you ever wondered what’s at the root of that?”

Isa kneels at the edge of the bed and bent over. Her vertebrae enunciate themselves under her shirt, as does the tip of her ass crack, which peaks out above her waistband as she searches beneath the bed.

“I don’t need any more psychoanalysis.”

“Oh, the whole practice disgusts me. Bourgeois pseudoscience. You’d think it’d have died off by now. I mean it’s twenty-fucking-three-oh, you’d think people would get a clue.”

“I don’t believe that. But I’ve had the best nanoanalysis the government could provide.” Her voice vibrated the bed as she spoke.

“I won’t even try to unpackage what that is.”

“I can pull out some info for you in a minute,” said Isa, muted by the bedsprings and thick mattress.

“You enjoy guitar because it’s in your genes. Music is an evolved adaptation, like most anything we humans do.”

“Is this more of that Ape Idea Takashi is so enamored with?” Isa’s fingers made a soft rodentine swishing as she ran them along the floor.

“Once you start thinking critically about your identity, how you are irrevocably a primate borne out of the successes and failures of millions of generations of great apes past, your whole sense of self disintegrates and reassembles itself anew.”

Isa slows. **Futurabold** can smell the perspiration leaking from Isa’s pores once she said “identity”. Normally she would be like, why even make the effort? Spines is usually so obdurate about anything philosophical. So set in her skepticism, steadfast in her doubt. This scintilla of open-mindedness she displayed now was something quasimiraculous. Likely the afterglow of some decent fucking, probably after several months of abstinence — as nice as Takashi and that Ganoush kid were, they hardly seem like effective wingmen, plus Isa is the type that was impossibly monastic unless you, like,

practically shoved yours in her face — that let **Futurabold** insert her proverbial foot into the door of Isa’s solipsism.

“You asked how we Neo-!Kung communicated. What with hardly any digital interface and about a third abstaining from the written word altogether. We did it as our primal foremothers did. We told stories. Sang songs around the campfire.”

“How droll,” says Isa. And how quaint of her to say something like “droll”, **Futurabold** thinks.

She feels thirsty. Her mouth is dry and her whole skin feels sticky but worn. She can taste the swampiness of her own breath.

“It takes getting used to. A loggy lifestyle. The modern world is a drug and we’re addicted to it by pubescence. You feel withdrawal. The phantom vibrations of tablet messages never sent. The uncomfortable shutterbug feeling in your head when you’re forced to F2F every time info needs transmitting. It’s nauseating, delirious. Your eyeballs hurt from the lack of backlighting. Takashi called us Alcoholics Anonymous 2.0. For good measure maybe.

“You do get used to it. Most of us at least. Low dropout rate. Especially if you were a musician. Those that could sing, play flute, strum guitar. They were the most eager, the most zealous. They were the fulcrums around which our community survived.”

“Doesn’t mean I would fit in, Ruthie.”

“Not what I—“

“A is guitarist. B is guitarist and primitivist. Ergo A is also primitivist. False. Bad induction.” Isa rolls forward, somersaulting off the bed. Her mass elicits hardly a thud from the tile floor.

“And nobody calls me Ruthie anymore.”

Isa lifts herself up. **Futurabold** once thought of her as wry. Her stomach was nearly concave, and she slumped slightly when standing emphasizing her hip thinness, her waifish legs and arms. Now though, she seems more insectoid if anything.

“You underestimate yourself, I.” **Futurabold** stands from her bed. The rug tickles at the webbing of her toes. “You need people. You don’t think you do. But you’re not an island.” She approached Isa and placed her palm of the small of Isa’s back.

“How are you so certain?”

“Because you’re a fucking human being.”

Isa pulls away. She yanks at the corner of the bedsheet, causing it to billow up from the mattress. She shakes it off over the mattress as if to beat answers out of it.

“You and I and everyone else, we came from the same place. Early sapiens didn’t philosophize. They didn’t read. Hell, it took a few thousand years before they could even talk to one another.” **Futurabold** stands there, naked, above Isa. The hair on her legs bristling with evaporating sweat. “They *sang*. They *danced*. Together. No words or sentences or logic. No problems of reference. No split between inner and outer. They just experienced and shared. That’s what we’re rooted in.”

“But how do you know this?” Isa, her back to **Futurabold**, clawing at the dusty fabric mattress cover.

“There’s a huge amount of literature,” **Futurabold** replies. “Maxine had a few dozen books on evolutionary psychology.”

“Maxine?”

“My friend with the library.”

“...”

“...”

“I suggest you look them up. Next time you’re in need of something to read.”

Isa rises, resting her buttocks on the back of her ankles. “I wish I could,” she said.
“But I can’t find my Eyes.”

A shoddy webcam, covertly snagged from the musty audio-visual closet in the telecommunications building three miles across campus, sits loosely duct taped to the plastic hardcover of Hofstadter's *Gödel Escher Bach: An Eternal Golden Braid*. The camera is oblong and ovoid, like a flattened novelty penny popular at souvenir shops. It stands atop a black plastic square with a circular joint allows it to be rotated some. The black is circumscribed by silver tape, which harnesses it neatly to the hefty book, which itself lays supine on a stack of several other hardcover textbooks, only half of which belong to Doug. The webcam, a dark digital ellipse, gazes straightforward noncommittally at the musician. Its posterior a tangled thresh of red, blue and white wires, all connected to various ports in a nearby Google laptop. Its screen is dark with inactivity.

The musician stands in front of the camera, the space between the two bifurcated by a squat metal rectangle out of which two glass tubes protrude: one horizontally the other vertically. His hands hover above them gently: one hand to a tube. It is as if he is stroking some large invisible cat, not wishing to wake it. The alien-looking device issues an equally alien-sounding purr, which graduates into a wail. The way a cop car on Jupiter might sound. Through careful, controlled movements of his fingers, the wail ebbs, peaks, descends and peaks again, looping chromatically. Every few seconds the musician takes a white dishcloth from his hind pocket and wipes off his palms and face so as to prevent even a droplet of sweat from landing on the glass tubes. Although he sweats bullets, he is efficient at keeping it relegated to his dermis and the cloth.

In the penumbra of the webcam's gaze, registering as no more than a blob of background color, sits the musician's only female friend at his desk. Over the past twenty days or so the shebody has listened to the Theremin's moans and whistles slowly evolve from the stuff of old science fiction movies to a consistent set of chromatic modulations. Up and down and up and down again. Bulky headphones sealing in her ears, gray hoodie pulled over her head, she blasts self-similar drum and bass loops while she alternates between combing through what must be thousands of lines of C#, editing, for...while-ing, and inserting in missing semi-colons, and a heated game of something called Starcraft with some kid in Seoul who she says is able to spam something called Zerglings faster than her laptop can process them.

Both students, steeped in the clammy solipsism of the budding virtuoso, two-thirds of the dorm-room's official occupants, concentrate, unflinching in their efforts. One raising and lowering his right hand by fractions of an inch, lips pursed and nostrils flared in focus. Every few seconds, when some pitch he judges to be a quarter-tone off, he lets his hands drop to his sides, pumps his fists a few times in frustration and reaches over to his laptop, pressing the space bar twice to stop and reset his recording.

In the back of the room Julia Sets stretches her arms above her head. Her marines proved no match for his opponent's brutal zerging, she says to Doug. No matter. Her computer science project was likely coming along swimmingly. She says she intends to design and engineer a small, automated card game in which each suit and number corresponded to a set of tactical properties. Cards were to be dealt and placed on a grid, the player on one end and the computerized opponent on the other. The cards could be moved and combined in a complex yet fairly intuitive manner, the goal being to bankrupt the opponent of its given reservoir of points.

She had pitched the concept to his professor, a bald bespectacled man who wore both suspenders and a belt simultaneously, as “the perfect amalgamation of chess and five card stud”. Tongue inserted firmly into his cheek, she decided then to call the game Clubs: The Gathering.

Coding this is her priority at the moment, she assures Doug. The Starcraft is more of a psychological experiment for her. All the games she plays are. A little probe into the skull of another, see their wits, rationality, ability to think on the fly. Creativity, skill and deception become a sort of tri-pronged model of the mind for him.

She breaks herself from his screen, hits the control and S keys with her spindly programmer’s fingers. Hoodie down, she rests her headphones around the back of her neck like an imperial collar. Sharp tinny electronica still pulsates out from them.

“Turn that off please,” a note of agitation colors Doug’s voice.

“Are you practicing?”

“Recording.” I really can’t have background noise.”

“The webcast?”

For the past two semesters, Doug Lamarck-Ganoush had ascended into the modern apotheosis of internet fame. He had created a series of YouTube videos, each one consisting of a low-resolution Doug playing classic works on the Theremin. Despite the low sound and video quality, a recording of he largo section of Gershwin’s *Rhapsody in Blue* generated him a not insignificant 41,212 views as of that morning. His other thirty-eight videos—featuring Beethoven’s *Moonlight Sonata* and Bizet’s *Habanera* from *Carmen* and everything in between— each held a respectable few thousand views. The one exception being an April Fool’s clip of Cage’s *4:22*, which the internet Theremin community found more perplexing than witty or clever.

“It’s not a webcast. It’s technically a video series.”

Sets hits a key, cutting off the music from her headphones. “Right, of course. Sorry.”

“It’s okay. I’m not going to be internet ready anytime soon.”

“What are you working on?”

“Rimsky-Korsakoff. *Flight of the Bumblebee*.”

“Never heard of it.”

“Yes you have,” and Doug lifts his right hand, his fingers closed in on his palm in a delicate gnarl. His left hand grazes the horizontal tube. With a sharp nasal inhale he lifts them and the Theremin sings to life. He slides his hand back and forth over a radius of no more than an inch, curling his fingers as he does so to account for every last pitch shift and semi-demi-quaver the Russian Orientalist initially proscribed in the song’s rapidity. The tune is instantly recognizable to Sets, although she cannot remember where from. Likely some 64-bit platformer from before all her adult teeth grew in. But Doug’s tune only enlivens the complexity of piece from Sets’ simple memory. Every small sweet of his left hand ushers in waves of crescendos and decrescendos. The knuckles on his right hand, white with intensity, seem to contain every ounce of musical competence the dude has worked for. His copper hair, tied off in a droopy bun bobs as he plays. The lively insectoid buzz of the Theremin and his hunched concentration radiate a kind of liquid fluency with body and instrument. A disregard for rules and praxis that only occurs after hundreds of hours of careful attention to them.

And as soon as the piece starts, it races to a finish.

“You’re amazing!”

“…”

“So what’s the problem? That sounded like your best one yet.”

“I fucked up the second key change. I was off pitch.”

“I couldn’t tell.”

“I get nervous when the camera’s on. I guess I have performance anxiety.”

Sets nods knowingly. “Be as the neural net,” she says as he thumbs at a particularly curly patch of beard. “Know thy goals. Know thy failures. And constantly recalibrate.”

“Leviticus?”

“Rumelhart.”

“Never heard of him.”

Sets exhales slowly, the air whistled between her teeth, yellowed by brightly colored sodas, extra-dark coffees and chewing tobacco. “He’s sort of important in some spheres. You wouldn’t wrong yourself to check him out.”

“Is he one of your computer guys?”

“In a sense,” says Sets, crossing and uncrossing his legs as he does so. “But not strictly so. He’s more interested in the intersections between technology and psychology.”

Doug shutters at this audibly. “No thanks.”

“It’s really cutting edge stuff. Or at least it was, like, fifty years ago.”

“Again, no thanks.”

She slings her headphones on one ear at a time. “It might prove a nice change for you. Compared to all those thick German tomes you bury your face in all the time.”

“They’re classics,” Doug’s throat begins to ache that kind of dull whine that comes with getting caught in an unnecessary bickering with a friend. “And I have very little interest in technology. Other than from a Heideggerian point of view.”

A single “Ha!,” more of the diaphragm instantly processing and purging itself from the smallest iota of perceived irony than a laugh, escapes from Sets. For Julia treats ironic statements like functions in great need of debugging. Self-reflexive modules in constant loops, like a family of snakes that eat their own tails in order to stave off hunger. Just because the function is executing doesn’t mean it is accomplishing anything outside of itself. “Doug, you practice Theremin for your own viral video series. And you say you have no interest in technology?”

“Not in that sense.”

Sets turns her head, bringing his ear to his shoulder. First her right, then her left. His neck cracks both times. “Then in what sense?”

The Theremin meanwhile had been releasing a low moan, barely registering the heat coming off of Doug’s hand. It adds a droning backdrop to their conversation. Doug, taking a precious second to think of some pithy reply to Sets, lets his attentional frame expand and incorporate the plaintiff basso of the device. He turns a knob on its ventral side and the Theremin shuts off.

“It’s a tool for self-improvement. A means to an end. A hobby.”

“But a tool! A tool!”

And as Doug resists the urge to turn the use of ‘tool’ back at Sets, a bubble of gas froths up somewhere in his bowels. He feels it ripple and expand, like a softball coated in

open safety pins, sticking the soft mucous walls of his intestines. He holds in stomach stoically and manages to squeak out a “So?” with some effort.

Sets, back to Doug, spine hunched over her keyboard snickers. She always had the tendency to border on rafhinkery when debating Doug. “Tools are technology. We need them to survive. The moment we turned from apes to man was when we figured out how to click two stones together to make fire. We’re nothing without our technology.”

Doug begins to piece together an argument about readiness-to-hand and *Das Man* and their relationship to man’s relationship to his own Being, translating guttural sounding German neologisms into English, but decides the whole point would be moot. Brilliant as Sets was, she always displayed a certain myopia to that which could not be explained algorithmically. And Continental Phenomenology isn’t exactly the easiest family of thought to be expressed in English, let alone computationally. There was a reason why all those Anglo-Saxons got caught up making truth tables and axiomatizing everything they could they could think of around the time Husserl started bracketing off the mind.

“I should introduce you to a friend of mine,” Doug says instead.

“You have friends?”

“A few actually.”

Above Sets hangs a poster the guy says he stole from his older brother. A set of blonde and buxom androids, characters in a cult-hit sci-fi webseries, look back at Doug with triumphant eyes, the black of space behind them. Both Sets and Doug are fans of the show, although neither had seen it during its original run on the net. Sets watches it almost nightly, pirating it from various torrent spots. Doug sometimes allows himself a break from whatever task he is engaged in to watch, although usually he just listens to the show as he practices. Sets notices Doug noticing the poster, the 32 by 20 Golden rectangle of geeky real estate on their wall. A tacit reminder that neither was in a place to insult the other’s social acumen.

“And yet you never bring them here.” Sets crinkles her nose.

“I respect the dojo. This is a consecrated place of practice. Of working towards excellence. Not frivolity.”

Sets’ voice rises half an octave. “Tell that to the other guy.” And they both share a brief but hearty laugh.

“I’ll introduce you two. See what you think of her.”

“Her?”

“You heard me.”

“Another shebody? Oh wonder of wonders!”

“I wouldn’t get your hopes up.”

But Sets is beaming a saccharine sweet smile. “Hopes are usually nil for you Doug,” she replies. “Barely enough to register.”

“Right.”

“But we’re similar, you’re saying? Have a lot in common?”

“You think in a similar way. At least it seems to me. Complimentary styles.”

“Left-hand and right-hand isomorphs.”

Doug shrugs, his bun wagging behind a little. “Sure.”

“Bring her by. I’m sure we’ll have a lot to talk about.”

Eyes roll. “You’ll see.”

It is a crisp February evening outside. The University of Google quad grass saturated with water, the wet afterbirth of a mild snowstorm a week prior. The room's window shades, uncharacteristically up, are caked with the thick black of a winter's night. Despite the coolness outside, the room impinges on uncomfortably warm for Doug, who has the temperature preferences of a two-day-old corpse. In order to prevent the small-but-consistent rivulets of sweat from dotting his clothes, little dots of moisture that bring with them a whole host of corporeal woes for Doug including extra-pungent body odor, an increase of little pus-filled *acne vulgaris* pimples along his forehead, chin, neck, chest and back, as well as dehydration, Doug has been inching the dojo's thermostat down by half-degrees daily. It now reads a comfortable 58° Fahrenheit and Doug goes about his practice dry and content. Sets, who has yet to outwardly display knowledge that the dojo even has some faculties for climate-control, has spent the past two weeks wearing the same dark gray hoodie daily, its dorsal side acquiring a few grease stains in the process.

The third guy though, can't stand it. That or he's been on some stimulants binge, insufflating various powders that lacerate the septum with other insufflators who don't sleep and take many pictures on their tablets and smartphones but never smile for them. Or perhaps he's found a partner and spends night after night in their room engaging in those fleshy activities that Theremin players and neckbeards enjoy much less frequently. In any case, his bed with the dark blue sheets and the *Big Black* poster above it has remained empty for over a week.

The Theremin too responds strangely to the cold. While it works fine, so far as Doug can see, it produces a more trebly tone. Airy, almost flute-like. Doug Lamarck-Ganoush does not see this as cause for alarm. Rather, he anthropomorphizes the box and tubes. He ascribes its recent bird-like timbre to a happiness and general bodily contentedness its master rarely gets. That's what musicians do, he figures. They make their instruments human, imbues them with personalities. Guitarists name their guitars, and their guitars are always girls. Not women or females. Always a Sally, or a Louisa. Doug named his Theremin Kate after no one in particular.

The habit must have some advantage for it to promulgate, so Doug figures. As if, by granting that which is wooden, metal, catgut, or glass, a name, some personality and perhaps sex appeal, one could hope to absorb some of that into their playing. Their music therefore having a sort of excess of humanity. An over-the-top-ness. People eat that shit up.

Playing music well is a lot like having really good sex, or so Doug has heard.

At any given moment the dojo is a matrix of values: the temperature, the length of Sets' hair, Doug's degree of perspiration (and the related variables of severity of acne, pungency of B.O, as well as hydration level), the tone of the Theremin, the binary here or not-here-ness of the third roommate. All neatly written down and equally spaced in a rectangular grid. Each value of a different unit of measurement: degrees Fahrenheit, Hertz, milliliters; however, each type of unit is in itself discrete and numerical.

Sets brings this up to Doug and his roommate often enough. The dojo as matrix (although he kindly skips over the Doug-related variables of sweat, acne et cetera when he talks of the whole shebang). Sets is all about this Impossible Mathematician. Some statistics dweeb who has access to some unearthly computer program that stores access to every single possible variable and measurable bit of information the universe could cook

up. This, of course, includes every value in the Dojo Matrix. So, says Sets, if this Impossible Mathematician were to assemble and note down each Dojo Matrix at given time intervals, every 24 hours for instance, he would eventually find himself with a huge data table of pretty similar points, all changing slightly with each measurement.

“Like sketches in a flipbook,” is how Sets puts it.

Between each Matrix the Impossible Mathematician could extract another grid of values; these numbers determined by the difference between the two matrices. So if the upper-rightmost square, say the number of visible whiteheads on Doug’s chin, had a value of 4 on the 67th and, perhaps due to purchasing some Clearasil that day, the same square reads a value of 1 on the 68th matrix, the third betweenness matrix would display a -3 in it’s upper-most right-hand plot. What the Impossible Mathematician will get, according to Sets, is a parallel set of matrices full of changes. Grid after grid after grid of little deltas.

And it is at this moment that Doug, t-shirt dry, listening to Kate’s soft siren hums, makes his own little mathematical discovery. Although hardly a numbers guy, and his discovery breaching little more than high school calc, Doug realizes that if Sets’ Impossible Mathematician were to take all of his in between matrices, and plot out a third set of all the deltas between *them*, he would be able to see how strongly all the variables change. Like acceleration versus velocity. These second-degree deltas, the change of changes, were the least tangible to measure. The points of inflections across a sea of curves. Yet, Doug thinks, if one had access to them, he could have access to the change of changes of changes matrix, and the change of changes of changes of changes matrix. Rates of change until it all boils down to one measly flat line. Knowledge of that, and the possibilities for feedback are limitless. A systematic, 4D outline of the very underpinnings of the Dojo.

Doug opens his mouth, his tongue flexed slightly, all excited and whatnot to say his proof to Sets but he is interrupted with a bang. Only the Third Guy can both open a door a slam it at the same time. And there he is in the doorway, tall, lean. Black boots, black skinny jeans, black Misfits tee and black hair naturally spiked.

“DLG and Julia, boy are you two sights for a pair of very sore eyes.”

1.11.1 — SHANNON

Isa preferred to sit in the bathroom during shows. Away from the amps and the monitors, the shredding vocal chords and the moshers. Toilet seat down, chin cradled in her palms. Her elbows pressed a pink waning gibbous into each thigh. If the band was especially loud, she inserted into each ear a wadded up sheet of the thin fibrous toilet paper punk venues usually stocked themselves with. The concrete walls and wooden door provided a pleasant muffle to the sounds careening in from the main room. Vocals became mashed together, lyrics undistinguishable. Guitar chords and bass chugs too. If the drummer was especially sloppy, as they often were, the whole group would morph into a thick mud castle of sound. The solitude that the average bathroom brought was an added bonus. Thankfully the large majority of punk venues sported a single unisex inlet rather than a multi-stall Lysol and linoleum deal. Rule 30 no exception.

Currently a six-piecer from Bayonne was at the mic. One drummer, four guitars and a saxophone. Isa couldn't recall the name but remembered the billing read something like "No Wave Revival". She removed a bit of tissue to excavate a plug of wax. Above the sink, her reflection did the same behind the bars of sharpie and mascara writing across the mirror.

Ears, Isa thought, sometimes look like little babies curled up in the fetal position. If I squint hard enough.

Her calves cooled against the porcelain toilet, Isa sat and listened to her thoughts. Soft-focus and analogue, she felt a strange lack of need to digitize, to dive into the endless rabbit hole of windows within windows her Eyes brought. Perhaps the endless propositions and doodles along the walls sapped her of that. A novel-sized amount of political aphorisms and ejaculating penises. Linguistic methadone to the heroin of hypertext. They sated her as she sat in her little solitary isle in an ocean of noise and chaos, occasionally broken by thumps of the zealous pit-dweller thrown against the door.

Something funny about faces she thought. Or, that is to say, faces exhibit a queer property; more strange than humorous. How utterly illogical they were. Disturbingly so. Through the mirror she frowned to herself. Not sad about anything, just exercising facial muscles; a movement devoid of content. And yet she still could feel that purple orb of sadness inside her, as if by reflex.

A frowning face is not a proposition. It is not a statement that corresponds to the world. It is neither a p nor a q. There is no grammar to it. But it still feels like it means something. Or, rather, it feels as if a frowning face contains information. Ugh.

And what an ugly word that is: "feels". Why not "knows"? Why not "I know I am sad?" or, "I am uncertain as to whether or not I am sad". Why replace that with "I feel sad." "Feel" is indiscriminate. It is loose, sloppy.

Like her hair that she noticed is bushing out from the small band she ties it back in. Isa kept her hair in a neat, small ponytail. In one fluid motion she removed the band, sliding it off onto her wrist, pulled back on her hair and retied it.

If I was another person, Isa thought, I would remark on how cliché this all is. Looking in the mirror and feeling sad. Or, better said, looking in the mirror and acknowledging a sadness.

And if I was yet another person, I might recognize the cliché and embrace it and employ it further. And by speaking about it hope to transcend beyond it. I would not sit in silence; rather I would clog myself with smug noise. As if by generating enough circular momentum, my thoughts eating their own tails, I could propel myself upward.

But Isa was not another person and she was still. The outside thumps and bumps and No Wave squeals stacked upon each other only to become dampened by the tissues in her ears, greased with wax.

A curious aspect of music is how it is never curious. Sound is always discrete, analyzable. Even the hairiest of sound waves can be broken down into simpler elements, thanks to Fourier. Genres change, instruments evolve, one might think they are listening to something novel. But that which seems wide and complex is borne out of a false multiplicity. Music is always familiar, always comfortably within the bounds of understanding. Even on first listen good music always sounds recognizable. There are no limits to music, unlike other forms of communication. In that sense, No Wave never needed reviving, it was alive all along.

That was not to say music was not without its puzzles, its blank unknowable craters. For example, what the vibrating guitar string, the sound wave emitted and the tone in Isa's head had in common.

Her frown vanished from sight. Paradoxes always did her well. Sitting on the toilet, Isa could have been the last person on earth, for all she knew.

A curious thing aspect of mirrors is how they let Isa see her own eyeballs. In a world without reflecting surfaces, Isa knew, she would never guess she had eyes. Nothing about the appearance of the world gives any clue to the shape of her retina, the color of her iris. Sure, she could *feel* she has eyes, but that word is tricky so she omits it. After all, feelings may be doubted. Sense skepticism and the tunnel that it pulls one through, a drippy dank darkness Isa found herself in so often she had begun to carve little tallies into its walls. Each a representation of a night spent inside the solipsistic dark. A countless number of fish ribcages inscribed around her, countless not because they were endless, but because the unlit tunnel prevented anything from being seen.

The revivalists crescendoed outside the bathroom and grinded to a halt, leaving only the trickling of their delay pedals rehashing those last few chords in their wake.

If Isa was another she might have played with the homonymy shared between her name and the word "eyes". Generated a handful of puns or long-winded sentences consisting of the same two phonemes. Hang up her language like a dress on a clothesline and watch it dance in the breeze.

The wooden door thumped twice. No more No Wave yet it seemed the moshers continued. Isa unplugged her ears, the tissues sticky and green. All seemed quiet in Rule 30, save the knocking.

"Isa—Isa—Isa."

Had some neural logic gate been switched inside her? Was some proto-wordplay frothing up between her ears?

"C'mon. People are leaving." Another report on the wood. "I want to show you something."

A recognizable nasally tenor.

"Seriously, I'm comin' in. Are you shitting or somethin'? If yr shittin' you better speak now, save us an embarrassing situation. I'm turning the knob."

But the knob did not turn. Isa had locked the door nearly an hour before. The knocks increased in both frequency and force. "Hammering" was a suitable word, Isa thought. Or, better yet, "Pounding."

"Dammit, Isa."

Without lifting herself from the toilet Isa leaned over, unlocked the door and opened it. There appeared to her Takashi, his face flushed, tight black shirt tighter and blacker with sweat.

“You missed a rogue fuckin’ act.”

“I heard it.”

“No you didn’t.”

Takashi glanced over each shoulder before entering the bathroom. Behind him a tall mustached man, saxophone slung around his shoulder, smoked a cigarette as he wheeled his amp out. Tak spun around and gave him a chin-to-chest “nice set” head nod. It was reciprocated and Takashi closed the door.

“Can I have a word with you,” he said.

“...”

“Aren’t you gonna ask what about?”

Isa took a moment to once again redo her ponytail. “About what?”

A smile broke across Tak’s face. “I’m glad you asked.” Takashi pressed his palms together and made a gun with his fingers, the barrel resting on the cleft of his chin. “I’ve made a bit of an executive decision with New Ape Idea.”

“I do not know what you refer to.”

“It’s our new band name. My idea.”

“I see.”

“Anyway, I figured, we have a new name, new gear, new practice space. We basically hit the refresh button on the whole project. Right?”

“I suppose.”

“So, I’m thinkin’, now that were evolving past our old forms. Y’know, learning from our mistakes or whatever, maybe we should experiment our different responsibilities within the band. Reconfigure the instrumentation a bit.”

“I’m staying on guitar. Sorry. I’m the only one who can play it.”

“No no no. Not where I’m heading with this.” Tak backed into the sink, and hit the cold-water lever with his elbow. As he turned the water off, he indulged himself to a brief self-inspection in the mirror. Isa had not stopped staring at her reflection since he began speaking. The externalities of self-involvement seem the same, though the internal components could not be more opposed.

“Although, I’m not too bad at guitar. Just sayin’.” Takashi always seemed charmed by his own image.

“...”

And a strange form of eye contact emerged: each one looking into the irises of the other’s reflection: the closest the two may ever had come to real-deal 100%-organic F2Fing. For Isa, that real-deal 100%-organic F2Fing was like tapping at the glass walls of herself with a tiny hammer. Or that preemptive chill the sunbather gets before jumping into cold water, yet a thousand-times more potent. Because staring into that major info output vector could remind her that there were inputs other than her own. And that is a difficult system to integrate oneself into.

“I want you on vocals.”

A chorus of *shit, shit, shit* was all that resounded between Isa’s ears. “I don’t sing,” she said.

“Good,” he said as he spun around. A shit-eating grin plastered on his face. “I don’t want you to sing. Singing’s old, tired, dead. You can scream or speak or whatever kinda shit feels best. I’m sure it’ll work.”

“I don’t think you get it. I don’t sing, meaning, I don’t vocalize. Period.” Isa’s voice broke as she talked. “I don’t go near microphones. I play guitar, mostly with my back to the audience, if I even have an audience, and I don’t scream or shout or speak. I am silent.”

“I can teach you to get over stage fright. There are tools fer it, like anything else.”

Isa gripped the rim of the toilet bowl beneath her. “It’s not stage fright. I am not afraid of other people. I just will not sing. My voice will not be heard.”

“Well, will you at least *think* about it?”

“I did.”

“For a prolonged period of time.”

“Why? I thought you liked fronting. Won’t Doug have a problem with this?”

“DLG? Ha! He’d be glad to see me stop singing. Any way I can avoid interaction with the crowd has, like, a majorly positive valence to him.”

“...”

“And, to your first question, I have realized that even a man as viciously talented as myself will not excel at everything. There are those ‘f us programmed to solve nonlinear equations and play bass guitar, and others meant to shred their larynxes night after night after night. I am, lamentably, the former.”

“...”

“Think it over will ya?”

Isa’s grip on the toilet bowl relaxed. Her knuckles darkened back to their original pink.

“And feel free to opt out of the aforementioned larynx-shredding. It’s been done b’fore, overdone, forgotten ‘bout, revived and overdone again. Do whatever feels best fer your lyrics.”

“My lyrics?”

“Yuh-huh. I’m not writing lyrics any more. Another of my lesser talents. I suck at it.”

“I never thought that.”

Takashi pursed his lips as his eyebrows ascended towards his hairline. An infantile look of surprise at an earnest compliment. “Really?” he said.

Isa hoisted herself onto Tak’s ego like a mountain climber on a sturdy ledge. “Sure. They always seemed...felt...fine.”

“Thank you, Isa. Really.” Tak’s voice turned soft and viscous. “I wish I felt that way.”

A silence, but not on Isa’s volition. For once, her mind flooded with say-able words, but Isa’s mouth could not form them.

“Ugh, but, like, that’s just not how I see it.”

“...”

“Y’know? Take our song, *My Dad is Not a Riot Grrrl*”

“Which one is that?”

Takashi snapped his fingers and whistled a few tuneless bars. They sounded entirely unfamiliar to Isa.

“I see.”

“So, like, whenever I sing the chorus, y’know:

*My Papa’s eyes got all misty
When he voted for Pres. Christie
For terms one, two and three,
And I’m like, ‘Fuck Authority’*

“I feel like the crowd never *gets* it. That last line especially. Like, I’m being ironic but I’m also not. I mean, sure, I hated Christie but that’s popular sentiment. Plus he hasn’t been relevant since, what, eight years ago?

“I’m sorta mocking the fact that I’m writing a punk tune about it but still acknowledging the sentiment behind it. If only there was a way to vocalize the quotation marks around ‘*Fuck Authority*’.

“So I’m scrapping it. Time to be humble or whatever. Our music’s good, we can keep that, but you’re responsible for the verbiage.”

“I’m not singing.”

A knock followed by a muted voice, “Isa? A thousand pardons. When you’re done in there, **Futurabold** requests your company.”

“I think Doug should sing. Not me.”

“Doug? Seriously?” Takashi’s voice turned staccato and loud again.

“Takashi?” from behind the door.

“DLG has the charisma and personal appeal of a hemorrhoid. You’re on vocals.”

“Takashi, I can hear you!”

“Actually, I say go with mumblin’. That’s my point-oh-two.”

“Mumbling?”

“Tak? Isa? Can I come in?”

Takashi leaned over and locked the bathroom door. “Yeah, y’know, speak softly and carry a big stick. Didn’t Cobain say that?”

“I don’t think so.”

Several raps from outside. “Guys?”

“That’s kinda the point though. Nobody could understand what he was singing right? And yet he’s remembered as this genius vocalist. Just do that. Or sing in German.”

“I don’t speak German.”

“That’s too bad. Everything sounds badass in German. It’s like the MatLab of human languages. We could be like Rammstein.”

“Takashi, you are being neither cute nor adorable. Isa, will you please let me in? I am not endeared!”

“Some old German band. Nu-metal, but not as godawful as most of the genre. They had this one song, the lyrics were hard to make out so everyone penned these conspiracy theories over what they meant. Journalists, literary critics, not to mention the 14-20 year old middle-American males that made up most of their demographic. Speculation all around. They make millions offa this single, right? Turns out, all they were saying was ‘I have you. I have you.’”

“I have you?”

Doug rattled the knob a bit, but the door would not budge.

“Exactly. Folks give such a major, sphincter-splitting shit about lyrics. They don’t realize half the time they’re makin’ m up themselves.”

“I see.”

“As I said Isa, think it over. It’s yr call, no pressure.” Takashi turned the brass nut, unlocking the door. “And by that I mean, the choice as been made, lotsa pressure.

“I’m not singing. Again. I’m not singing.”

“And yet you’ll sing. It’s written in the stars. Welcome to the music industry babe.” Takashi opened the door to a bent-over Doug, hands on his thighs, his face beetish.

“Thank. You. Isa.” Doug managed between pants.

“Isa didn’t do shit for you,” Tak said as he stepped out. “And seriously Doug, get in shape.”

“I’m. Asthmatic. Dick. And anxiety. Increases it. Tenfold.”

“Anxiety?”

Doug stood up and plugged his nostrils for a count of three before inhaling through them sharply. “Well. I rightly thought you two were having a pow-wow of sorts in there. What, given Isa’s general lavatory-related concert praxis. And yet I *assumed* you two would let me in if I knocked. I winded myself banging on the door only to realize perhaps I was disturbing some gentleman’s deification, or worse, an attractive woman powdering her nose or greasing her mohawk and I subconsciously started to have a minor-scale panic attack.

“I start sweating and my heart beats faster. And then, I realize my sweating and palpitations, and I recognize that I am have a minor-scale panic attack. So I try to calm myself down: deep breathing, count to ten, to no avail of course. So then I start panicking that I can’t overcome my panic attack, so my small anxieties turn into a full-on, self-aware fit of neurosis. And I get dizzy and really start sweating, like much more than before, and biting my nails. I become so nervous, you know, that someone else is watching me have a panic attack. So I have a tertiary panic attack. A panic attack that others are watching my panic attack about my panic attack, and judging me with utmost cruelty. I shake. I feel nauseous. My spine feels like an overboiled carrot.

“That’s when you opened the door. Lucky for me I wasn’t interrupting some innocent lady’s micturation. It’s just Takashi and Isa, grabassing around. You two just suck.”

“Christ, Ganoush.”

“That’s my line.”

“Yeah, well. Good news. Isa’s on vocals.”

“I’m not.”

Doug’s chin skewed sideways into a goofy open-mouthed smile. “Really? That’s amazing.”

“I never said that.”

“Yeah, figured I’m not the front man type. Need to focus on playing out of the pocket or whatever the fuck bassists say they do. Oh, and were scrapping my lyrics too. Isa’s gonna rewrite ‘em fer all our tunes.”

“Takashi, I’m astounded. Truly. I never thought you’d be so mature.”

“I wish you weren’t so excited by this, DLG. It’s a bit, I dunno, patronizing or something.”

The corners of Doug's lips twitched.

"I can't sing. I will neither mumble nor scream. I will not look at the audience. I will not, I will not I will not!" Isa's voice, pinched and warbly, climbing close to a shout.

Tak and Doug stood. Silent. Their faces fish-like.

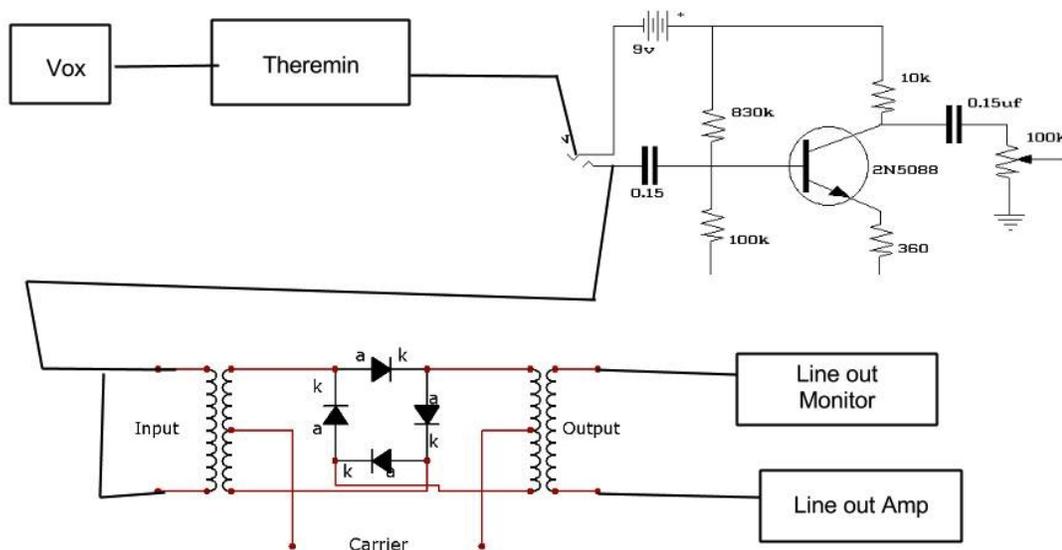
"Maybe I can change your mind," Takashi started. "I have something for you Isa."

Isa kept her gaze at her knees.

"Isa," Tak said. "I shared with you a doc. Can you project it for us?"

And with that Isa tilted her chin upward, her normally white skin crimson. She blinked, slowly, deliberately, and the home-screen of her Eyes showed itself to the three. Superpositioned above the mirror, Isa opened a shared docs folder where a blinking pink .jpeg from Takashi waited.

"Open it," he said. And with another blink she did. Before them was a complex schematic. Of course, Isa, with her lack of knowledge of electrical engineering, could grasp little from Takashi's complex handiwork.



SHANNON
by TME

"What is this?" asked Doug.

"I hope you don't mind," Tak interjected, a vein protruding from his forehead beneath his blonde spikes. "But I rigged some of our equipment together. Created a revolution in sound design."

"Our equipment?"

"Well I stole most of it. So I guess it's mostly mine."

"It is so not yours," said Doug.

Takashi paused to thumb at his nose, either in diffidence or to swipe away a booger. “Punks not dead DEEG,” he said. “What you see here is my SHANNON. The finest and most-cutting edge piece of vocal modulation hardware ever created.”

Isa could not retreat into herself, stare at her legs and daydream, lest she change the position of the projection.

“See, what we have here is an input, the signal from the microphone, fed into your old Theremin, Doug.”

“You can’t use my Theremin!” Doug shouted, his voice cracked pubescently.

“Too late.” Tak shrugged. “It has already been subsumed by the SHANNON.”

“I never said you could—!”

“Too. Late. Doug,” Takashi repeated himself. “It’s part of something greater now.”

Doug swallowed.

“Where was I? The Theremin feeds into an LBP-1 which you see here. That distorts the signal. Makes it richer. Following that we go through a ring modulator which, well, modulates it. All this is fed into the amp.”

With a defeated tone Doug said, “Won’t that sound like shit?”

Takashi smiled. “But punks love shit. Yr failing to see what this will do. We place the Theremin in front of the pit. The heat and movement of the mosh will mitigate its signal. The energy of the crowd modulates to vocals!

”You see, all communication relies on a bit of ambient noise right? This puppy’s namesake, Claude Shannon pointed that out first. Think about it, right now, I’m moving my lips and vocal chords, the vibrating air gets mixed up with the ambient noise of the band in the next room, yr bodily functions, whatever. But somehow yr able to parse out my signal from that noise. My SHANNON essentially removes that noise, or rather, it encapsulates it within the communicative system. It joins the roles of musician, the speaker, and the audience member, the listener. Really, what I’ve invented is a new paradigm for punk rock!”

The projection flashed then shut off. Isa’s face was in her palms.

“What did you do to her, Takashi?”

“Shit, nothing!”

“I don’t want to sing.”

“ She said she’d think it over.”

“I *am* thinking it over.”

“Well, don’t think so hard. You’ll give yrself an aneurism.”

Isa was too entangled in her own thoughts to draw offense. Only Doug inhaled through his teeth.

“Why don’t we give this a rest yeah? No vocals for now, well focus on instrumentals. It’s not like we have a show coming up right?” he said.

“...”

“Whatever.”

“Anyway, **Futurabold**’s growing irate I’m sure. You know, she’s been in her office waiting for us for the past half hour I imagine.”

From behind Doug, Tak espied the form of **Futurabold**’s Uncle Dee. He leaned against the doorframe to his niece’s office, thick hairy arms folded across his chest. His

shirt pocked with grease stains, his jeans tattered around his knees, he watched over them like a Golem over a small Yiddish village. Silent, formidable.

“Yeah, uh, let’s do that,” Tak said. He gave Uncle Dee a nod. It went unreturned.

Inside her office **Futurabold** sat at her desk. In the corner of her room laid her old PC tower and monitor, already tenanted by a few different species of arthropods. In front of her was her new monitor. A clear plexiglass rectangle propped up on a curved aluminum support, the screen three times the size and one two hundredth the width of her old one. Next to it was the monitor, hand assembled by Takashi. The hardware sat inside an unused pizza box for the ‘ria across the street. (Tak insisted that this would give **Futurabold**’s office a definite DIY appeal, plus the cardboard would provide excellent cooling for the hard drive). Atop the screen was a tiny, almost invisibly small pinhole. Inside it lay a motion-tracker that allowed **Futurabold** to interface with the machine mouse-free. She could simply manipulate any item on the screen through simple hand gestures, or if she was feeling particularly lazy head nods. While convenient, these features required that users make little auxiliary hand gestures. An easy feat while alone, but difficult during meetings when she both had to use the computer and interface with whatever folks were populating the milk crates in front of her. In recent weeks, Tak had noted, **Futurabold** had adopted a certain rigidity when in her office, her lack of movements implying a sort of austerity she simply did not have. Doug could relate. Thankfully, punks, despite their deep-running anti-authoritarian pathos, were much more likely to respect her and follow venue praxis.

Futurabold said nothing when the three entered. She merely waved her hands towards the three overturned crates in front of her desk waiting for them. That, or she minimized a window on her display; it was difficult to tell.

“Uh, sorry that took so long,” Doug said first. He took the middle crate. “We had to have a little band powwow beforehand.”

“Uh huh,” **Futurabold**, nonplussed.

“You know. Internal politics needed sorting out. You understand how these things go.” Doug removed his glasses and buffed the lenses with the edge of his shirt. An excuse to keep his eyes lowered.

“Right.”

“Who were the guys just playing?” Tak asked. “Killer set. Tell ’em I said that.”

“Pontius Pilates,” **Futurabold** responded. “From where else but Brooklyn.” Her voice was flat and interested.

Takashi attempted a polite laugh.

A faint hack sounded in from outside. Most likely Uncle Dee. Otherwise the room was quiet. The silence roared on for several seconds at least. Doug and Takashi squirmed on their crates. Isa sat, somehow more silent than usual.

“So what’s this about?” Tak broke the quiet. “Are we headlining a show or something?”

“Not exactly,” said **Futurabold**. “I received a strange email this morning. I was wondering if you three could help me out, give me some info.”

“May we take a look?” Doug asked. “Shed some proverbial light on the darkness and such.”

“You absolutely may,” **Futurabold** replied. She rolled herself away from the desk so the three could approach. Tak and Doug swung around the desk immediately. Isa took her time. She pulled out her tablet, and punched in the entrance code.

“What the fuck?” **Futurabold**, her eyebrows nearly touching her mohawk. The monitor went dark, only to restart itself with a thousands of characters of nonsense zooming across it.

Takashi squinted to get a better look. “Encrypted data,” he said. “A pretty elaborate cipher too.”

“You can tell?” Doug asked.

“I mean, all encryption looks the same at first glance. I just know that the government usually has some pretty high-caliber coding on its software.”

“These are government codes?”

“Well, it’s government software, like I said.”

“I don’t care what it is. Just make it stop!” said **Futurabold**.

“Gimmie one sec.” Takashi scratched at the nape of his neck, his pupils darting across the code. “Yeah, it looks like this is all input from a nearby device. Everybody, turn off your tablets.”

Futurabold and Tak pulled out the clear rectangles from their pockets and switched them off.

“Phones too, Doug.”

Doug unearthed a boxy Paleolithic Nokia from his shorts. He pressed a button and it darkened.

The monitor still buzzed with code.

“Is everything off?” Tak asked, his gaze set on Isa. With a sigh she blinked off her Eyes, cringing as she did so.

The computer reset itself, its screen returned to the **Futurabold**’s smiling bonobo.

“Curious, very curious,” said Tak.

“What was that?” **Futurabold** asked, afraid to touch her own computer.

“It looks like we have a DUSTER in our midst,” he replied. “At least that’s how it seems. All government machines built in the past five years or so will automatically input any signals coming from a nearby dyad.”

“How did you get me a government computer?”

“I stole it.”

“What?!”

“Well, I should correct yr mistaken assumption. It’s not a government computer, its government software. The hardware I put together myself, bought it all at Best Buy. The software, the programs that run on the hardware, that I pirated.”

Takashi could hear Doug’s breath rate accelerate. Here comes the lecture. “Are you *trying* to get yourself arrested?” Doug said. “Mother of God, Takashi, how can you be so reckless?”

A sigh and a quick rolling of the eyes from Tak. “It’s mostly risk-free, Doug. The number one rule of net pirating: the bigger your source ware, the easier it is to cop. And now I ask you, what source is more overwhelmingly huge than the government?”

“I don’t follow,” said **Futurabold**.

“See, the government has put a heavy investment into regulating the internet, an otherwise free flow of information. If you are a ruling body, cyberspace is scary as shit. It’s distributed, lawless but democratic. So anytime the NSA catches a few chem nerds discussing their favorite uranium isotope on some backseeded forum, Congress passes another set of oversight laws. Y’know, to keep us safe.

“The problem is though, is that the government is run by old fogies. Graying dudes who went to Yale and Harvard when the TI-83 was cutting edge and marketable prices. They had zero idea how the net, or all of cybertechnology for that matter, works when they were elected. And it’s not like they put in much effort in keeping up with that wonderful exponential curve of growth and development.

“What you get, basically, is a set of lawmakers who, although their membership is ever-changing, are always lamentably behind-the-times.”

“And this helps me how?” **Futurabold** asked.

“Well, old fogie politicians hire old fogie technocrats to enact their politics, right? See, legislatures have a lot of power. I mean, they are the law, yeah? But that’s their problem. Double-edged sword or somethin’. If they write up a 3000 page cybersecurity bill say, monitoring all search engine key strokes that contain a possible iteration of the Chinese characters for ‘zoo porn’ and ‘Lee Harvey Oswald’, they need to also find a team to create the software to implement said tracking. Resumes are combed through. Phone calls are made. Backgrounds are screened. And eighteen months after the bill is signed into effect a crack-team of computer science PhD’s are assembled, who, over the course of a year or two, create and disseminate code patches for all major web browsers and search engines. Problem is, though, while these Stanford elites were sippin’ Starbucks and leisurely programming on their subsidized Mac Books, some fourteen year old black hat from Nebraska with pubes growin’ on his chin read the news and already figured every possible hypothetical hack and crack to their code *in advance*. Hard as the powers-that-be may try, they will never be able to keep pace with the basement-dwelling masses. Y’follow?”

Takashi scanned the faces of the other three. All were lacquered with varying degrees of confusion, save Isa’s who’s eyes were glassed over, likely stoned on her own thoughts.

“While I’m not the, uh, shall we say *technophile* you are Takashi, I can’t quite find the takeaway here.” Doug said slowly. His upper lip twitching as he tried to crunch together some solid takeaway from Tak’s ramblings. “Political vindications aside, it seems to me that the lack of comparative efficiency between government officials and the hacker subculture don’t have a lot of, well, relevance to the situation at hand.”

Tak emitted a histrionic sigh. “You missed my point, Doug.”

“I wasn’t aware you had a point, Tak.”

“Isn’t it obvious? The government is massive and slow with an enormous bank account. But govware is still state of the art. Or what the state of the art looked like two years ago. All it takes is one guy to figure out how to crack it and in three days copies in forty different languages are available for pirating for all his friends.”

“Isn’t that illegal?” asked Doug.

Takashi shrugged. “I mean, I guess so. But it’s not that heavily persecuted. A good hacker doesn’t get caught. A bad hacker gets caught and then hired by the government to help formulate the next report of wares. Half the time he’ll still be black-

hatting and leave some obvious holes for his darkly-capped buddies to snatch up from the underground.”

“And that’s where you got the—“

“—The OS for **Futurabold**’s computer. Yep. I have a government connection.”

“Well you may need to pull some favors with your little buddy,” **Futurabold** said. “Check out this article I read today.”

Asylum News: Police Blotter

New Suspects Emerge in Guitar Heist

Paramus, NJ

In a new development in an ongoing case in which a Guitar Center Superstore was burglarized last month, Police Chief Jared Moucet announced that investigators are on to a new lead. One of the guitars stolen, a rare vintage model known as a “Fender Jazzmaster” was tagged with a GPS tracking sticker. Moucet has tracked the position of the guitar to Hoboken, NJ, although no arrests have been made. Moucet gave no further information on the case.

Doug gulped audibly. “So shall I state the obvious?”

“What the fuck is *Asylum News*?” Tak said, like whatever.

“Look it up,” said **Futurabold**.

“Scoot over,” said Takashi as he pawed at the screen summoning a search engine.

Doug twiddled his fingers in an attempt to scroll down, but to no avail, Takashi had control. “So do you think they’ve found us out, **Futurabold**?”

“Us Doug? I am not a part of *us*.”

“Or course,” Doug stammered. We wouldn’t implicate you or anything. “I just want to know—“

“I threw out that tracker weeks ago. Unless it’s on the floor of my van. How could they have found us?”

“But wouldn’t the police have, like, emailed us?” said Doug. “Why aren’t we arrested? Should I be paranoid, Tak?”

“Paranoia is just a realistic assessment of one’s place in this vastly networked world. It’s an existential security blanket. Makes you feel like you matter to something else.”

“That doesn’t help.”

“Paranoia is realism, Doug,” said Takashi. He pulled at his skeletal bass-guitarist fingers, cracking them as he spoke. “At least in this case it is. Whether or not the police have contacted us, in all likelihood, we’re fucked. Royally.”

Doug twisted a greasy lock of hair on the back of his neck. “It’s not giving any suspect names. Just Hoboken. It’s a huge city.” He glanced at **Futurabold** whose arms were folded under her breasts. “Could this be a prank? One of your Neo-!Kung friends or something?”

“My Paleolithic friends would not be the type to use the internet, let alone read.”

“So that’s a no?”

“Doubt it. The hardcore members were so into their own naturalist philosophy the eschewed technology altogether. The more mild ones probably have better things to do, you know, muling rutabaga in from Canada.”

“Yr not worried by this?”

“Worried? No. Confused? A little. I was just hoping the fuzz don’t snag you before this weekend.”

“This weekend?”

“You’re headlining on Friday.”

“Seriously?” said Takashi and Doug in unison, albeit with vastly different intonations.

“Yuh-huh. Frida and the Felchers canceled. Tour van broke down. So you’re booked for a forty-five minute set. Better get ready.”

A wild grin broke across Takashi’s mug, obfuscating any email-induced nervousness. “You got it, sister.”

Uncle Dee sat at his stool, thumbing and folding over \$500 bill after bill into a thick sandwich, marking a thick Sharpie X on the backs of hands of the youngsters w/o ID. Not that Rule 30 had a bar/alcohol-serving capabilities anyway. Though they seemed eager to have the black marks inked on their hands, regardless of age. Nostalgic for the days of the straight-edge scene, not that they had lived through that. The others might sneak in a flask or a Coke can filled with Jack or non-synth Green Dragon. Obviously not attempting to be edge. Or at least, like, come off as edge. No veneration or nostalgia or even a calculated affect of respect for that era for them.

Uncle Dee could remember that time though. The age of Black Flag, Minor Threat. Hardcore basement bands and trendy anti-trendy straight-edgers.

Of course, Uncle Dee's memories of that time mostly consisted of him parked in front of an episode of "Sesame Street", eating single-serving packets of what was alternately marketed as vanilla yogurt and pudding.

Though these kid that filtered into the building — kids being any human of age [2, 28] inclusive—hadn't seemed to change much since Dee's own time between those brackets. They still wore Chuck Taylors and/or combat boots. Piercings, stick 'n pokes ('cept now they could move and change and shit), band tees with sleeves cut off, androgynous anti-stylish haircuts for hebody and shebody alike. When they would once talk awkwardly or diddle with their cellphones in concerts of yore they would now play with those clear tablets or message each other with those contact lens things. Same difference though.

Even the music sounded the same. Or, like, even the ways it would sound different between various times and genres would still be in the same fundamental ways. As if a pendulum with a period of, say, 8 years or so constantly swung back and forth. At one height maximum was the real good organic shit. Lack of production, effects. Raw vocals and bloody pick guards. But that kinda raucousness can only be trendy for a section of 5 years, Dee thinks. Eventually the trendulum will swing to the other side. The pole of synthesizers, electronics. Lyrics finely attenuated to be anything but the pathos-ridden snarls of that which was popular 7 years prior. Exquisite irony and vapidty.

No matter where the trendulum is in its swing trajectory, the music can't escape some essential qualities. Lyrics, no matter how bathetic, are usually driven by lust, disdain for authority or both. General aching melancholy works too. Same for affected anhedonia. All over some offspring of a I-IV-V progression. Snare hits—mechanical or not— on downbeats. Though as the trendulum swings it' eventually slows down towards the basin at the center. The nadir of its path. Certainly it can't swing back and forth forever, Dee wondered.

"Goat Boners still playing?" said one skinny kid with astounding vascularity. Dee's seen him before.

"No", Dee. He reaches out a hand for cash.

And the kid just stared back eyebrows all screwy like, what? He had two shebodies behind him. One with pink hair and a *Chapped Assholes* tank put her hand on his shoulder. "Who's headlining?" she asked.

Dee looked into the atrium. A handful of punks pogoed up and down, either out of boredom or to keep warm. Others scanned the plexiglass walls as they flashed countless insignias in a loop. In the corner that fat kid L'Marque was screwing together a highhat

stand. The other two were probably backstage with Ruthie or something. They'd been hanging around here for months; what did Ruthie say they were called?

"New Ape Idea," said Dee, the words taking their time to pour out of his mouth.

The kid looked at the two shebodies behind him. They shrugged together.

"Fifteen hundred," said Dee and they payed.

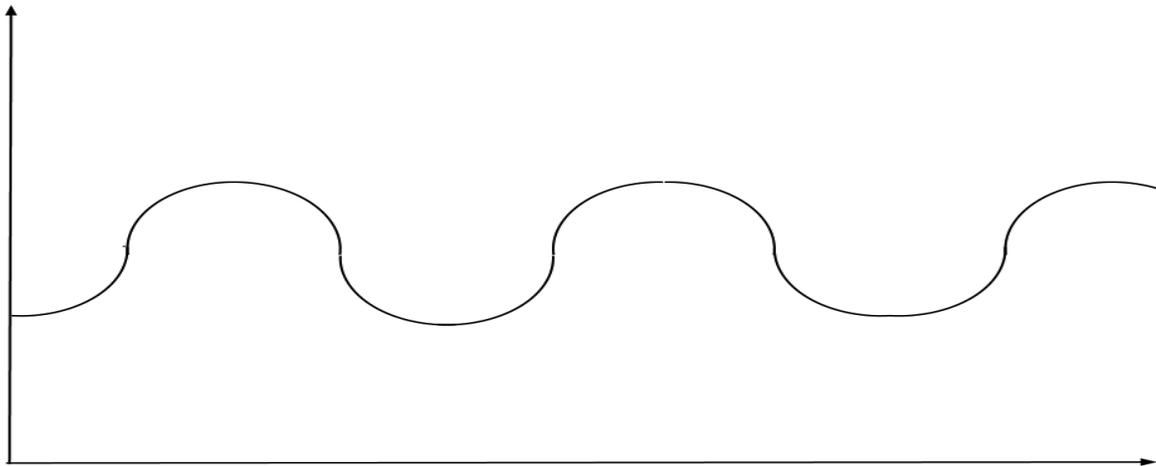
A squawk of mic feedback. That blonde kid was fucking around with some knobs on this weird-ass pedal with glass tubes popping out of it. The feedback died down and he stood up and spoke into the mic. The shrieking returned. The fatty ripped a few paradiddles on the drum set. Warming up with eccentric rhythmic patterns, alternating between traditional and matched grips. Dee didn't see Ruthie on stage or the pixie with the color-changing sleeve tats.

A closed fist appeared demanding that it be X'd. Dee did so without even glancing up to see if there is ID accompanying it.

The blonde marched off stage and returned with blue Fender Jazz-Effing-Master, like Dee hadn't seen for decades. He plugged the guitar into a pedalboard and tuned it. He whammed out an E chord to an A, unplugged it, and leant it against the stack and disappearing into the audience. The chubby kid set his sticks on the stand and filed suit. Why the hell did Ruthie make the openers set up?

They got off and a couple more kids filtered in. Like 5 or 6 asked about the Goat Boners and two don't even pay. They left instead with their eyes screwed up.

When pendulums swing, they only usually swing to and fro, right? Dee thought to himself. Same with the trendulum. Like left and right and left and right, up and down and up and down and up and down. You could probably graph it out, comparing how the height changes over time. Dee simmed something like:



With the first valley being the hxc punks (Black Flag, Minor Threat, DK's etc), then the next crest is, like, Madonna or Michael Jackson, then Nirvana, Backstreet Boys, Fucked Up, Bieber, McJagger & the Nuggets, SparkleJamz etc. etc. etc ,

But that's in, like, two dimensions, he thought, unaware that he gave back the fat shebody with the septum ring an extra K in change. Why doesn't somebody, when the pendulum is swinging, stick out a finger and poke it. Add a third dimension. A Z. So it's swinging every which way not just left and right. But forward and back. And forward-right and back-left and left-forward and back-right. Didn't some Foocoh guy do that?

The first band had an old-fashioned drum machine wired to the PA. The guitarist started to hammer at a student's half-size Stratocaster. The bassist played an upright, a mic dangling inside its F-hole. The chord swung about as he let loose a few open E's for tuning. He turned and squinted at the drum machine, activating it and giving a flat MIDI-fied 4/4 rock beat.

"Hello Hoboken! We are the Ass-Pube Snowmen," the bassist said, "And this song is in A minor."

And they started ramming at their strings. Totally trying to pit themselves two notches below the lowest nadir the trendulum had swung over. Really coming at about the point of inflection between high and low. Dee'd heard it before. The calculus of the opening act at Rule 30 was, like, totally predictable.

Ruthie'd come out of her office, Dee notices. She was standing along the wall, a notepad in her hand. Ever since she got back from living with the cavemen people, she liked to write about the kids, she told Dee, the younger of whom are spazzing out to this horseshit while the older, taller ones just stand and nod.

Just as with the openers, the audience reactions to a first set had a repeating, deterministic quality as well.

Which meant that in about fifteen minutes the elders would start to file out and smoke cloves and menthol lights on the sidewalk outside and complain. This placed them among the more open-minded concertgoers Dee had encountered. Back when he ran the place the hipster:punk ratio was a bit more skewed. Kids would buy tickets, stand for two minutes, and smoke for the next 118.

By his calculations, Dee could slip out, enjoy a 10-minute spliff and reenter in time to handle the wave of out-goers. Dee assigned a certain credulity to his calculations because he forgot to take his afternoon pills with lunch and has only been inhaling cabbagey synthed herb for the last few days. Ruthie preferred when he'd have a clearer head for these shows.

The Ass-Pube Snowmen announced that their next song is a Johnny Cash cover but neither the vocals or the guitar lines were discernable. Somebody turned the bass mic way up. The plodding straight-eighths-on-the-root bass line didn't quite line up to tempo with the drum machine that'd been playing the same metronomic beat non-stop for the past three songs.

By his recalculations, Dee realized he probably only has time for half a spliff before kids start leaving.

From the sidewalk outside Rule 30 the band is barely audible. Dee sparks and inhales. The synth stuff always smelled more sulfuric than plant-like, Dee's noticed. He used to get higher back when the stuff was illegal. The medical card felt good when he first got it, near two decades ago, but ever since the gov took over whole hemp industry Dee McRoger's felt like he's been smoking the spindly leaves of pesticide-sprayed conifers rather than anything remotely cannabanoidal. Not that this had been a sufficient enough reason to quit smoking.

Mallorey always seemed to materialize outta nowhere. He was in the same black trench coat he always wore, collared shirt and tie beneath. He was tall, sported a conservative high and tight crew cut and smiled a lot—all qualities more commonly exhibited by investment bankers than zine journalists.

“Mr. McRogers” he said with a nod. Kid still called Dee mister, which cracked up Dee and infuriated him in equal measure.

Dee didn't say much and held out the spliff, two-thirds gone currently. Malloreay put up his palm like, no thanks and Dee, stoned into synchronicity, did the same.

Night fell on Hoboken to the warm drumbeats leaking from Rule 30 and the soft purr of Automobiles® driving past. A couple bar hoppers yelped about something as they stumble into the pizza joint across the block. Malloreay, hands in pockets, seemed to take it all in too. An appreciation of ambience, quietude: more atypical qualities he seemed to have.

“**Futurabold** tells me she's debuting a band that's not to be missed.”

“Tonight?” mumbled Dee.

Malloreay smiled. “Apparently their bassist had the idea that they should plug a Goat Boners show on every music blog they could find. Y'know, bring in a crowd. Then change the headliner to the new folks when it's too late for anybody to leave.”

Dee scratched at his head and tried to remember which one of them was tuning the bass before.

“Ballsy move no?” said Malloreay. “I mean, if those cats can't play we'll have a small scale riot inside.”

“...Cats.”

“I'm gonna head inside. Put the ticket charge on my tab, will you Mr. McRogers?” Malloreay depressed the knot of his collar and his outfit changes to a sleeveless white muscle-tee, camouflage shorts and combat boots.

And the two entered Rule 30. Just as a threesome exited, cigs already in hand. Perfect calculating.

Inside the Ass-Pube Snowmen are already getting booted off. The bassist held his large upright on his back like a pack mule. The other kid looks like he's tearing up as he turns off the drum machine.

Ruthie exited her office with the two Ape kids. The tall skinny one leapt up on stage while the fat one took his time, wringing his hands and stretching his wrists. The former picked up his precision bass and plugged it in. Real high-quality instrument, by the looks of it. The latter sat at his throne and picked up his sticks. At least they had an organic, embodied drummer, New Ape Idea. The bassist looked miffed and so did the drummer. With even longer strides than before, the bassist leapt off stage and through the crowd, navigating the growing pit with ease. He skirted towards the bathroom and, without knocking, opened the door and pulled out the short shebody with the trippy tats. He led her by the wrist up to the stage.

After slinging that blue Jazzmaster around her shoulder she stepped up to the mic, eyes closed, biting her lower lip like, “Oh shit”. The crowd was restless and murmuring to itself. Dee calculated they're probably all simming the witty insults they'd later hurl up at her unless she started to play some tuneage stat.

A couple beats and the chinky bassist leaned forward and yelled, “Hello, we are New Ape Idea, and this is our first song!” and a few younger shebodies in the crowd hooted in mock-adoration.

For someone his size the drummer could sure move. He was all over the set, Hawaii Five-O-ing up and down the toms and snare. The cymbals sounded crisper than

Dee remembered. His face was calm and cool if not a bit nervous and his shirt already seemed to be logged with sweat.

Contra the bassist who was hopping up and down like a fucking monkey but his timing was uneven and his mids were turned up a bit too high and was that a flanger that he was running the signal through? Why a bassist would use any phasing on their sound was beyond Dee, but the kids didn't seem to mind terribly. A couple nodded their heads and shifted their bodyweight from knee to knee in time with the bass drum hits. Then again, there was always enough audience members to dance to even the most atonal arrhythmic garbage at Rule 30.

The shebody with the guitar stared at her toes while the drummer and bassist exchanged worried looks, which was impressive given their level of simultaneous physical activity and then they shift to glaring at the shebody. The crowd started to jeer. Dee could see Malloreay and Ruthie leaning against the wall, Ruthie's hand cupped to her mouth speaking to him.

Dee took his seat at the folding chair in the venue's atrium. He watched the graffiti flash by; at this point he'd near memorized the order by which they change. Monikers of bands, real and fake, eliding into one another. The scribbled, looping Ls and Is and Anarchy As blurring into over-recognition.

A trite "You suck!" enunciated itself from the crowd. The music had stopped and the bassist's long arm was around the guitarists shoulders, his thin muscles visibly tensed. He F2F'd with the shebody, his back to the sweaty mass at the drum kit who craned his neck like he was trying to join in too.

"No refunds," said Dee to a shirtless ectomorph, an X-ed hand outstretched. "Fuck off," he retorted and left.

A few teenagers pogoed a bit in the crowd. Moshing in the absence of music. Buying in to it. That what they were witnessing, a total incompetence of musicians of a certain style who practically breed themselves for lack of talent or fine motor skills.

This sentiment did not seem to be shared by the majority of the crowd though, who just seemed pissed.

A small gaggle of regulars, unlit cloves already wedged between lips, turned to leave. Dee, tongue to palette, already began to enunciate the liquid N of another "No Refunds", when the bassist took the mic.

"Hold yr horses. We're gonna try that one again."

The drummer clicked off four on the rim of his snare. And the guitarist turned her back to the audience, lips to the mic like she was Miles fucking Davis. The guitar line was plaintiff yet fuzzy. The bass just fuzzy. Cloves descended from lips and reentered pockets. Heads nodded, hips swayed side to side. These kids were *dancing*. At Rule 30—a space where physiological activity was relegated to either the ingestion of nicotine, the simultaneous folding of arms/nodding of heads or the full-throttle bodily slamming. The rare bird that was dancing only showed itself with the most ironic of plumages. But these kids, they were, well, embodying the music. The drummer looking especially gorilla-like, pounding on the toms, signaling steps and turns with each click.

From their wall, even Malloreay and Ruthie tapped their toes, lips pouted and impressed. Dee—despite his haze—took little time to recognize that he was the only spectator in the room. The only set of eyes scanning the dance floor. Although he was usually spectating in the company of his niece and perhaps a few of Rule 30's jaded elder

concertgoers, that night he was alone. The rest were involved in the music. Infectiously. Their limbs slapping sides and spines swiveling with each paradiddle and pinched harmonic emanating from the stage. Their bodies imbibed the music the way one could not help but to gulp down a cool glass of water on a humid July night.

Within his steel-toed boots Dee could feel a big toe sliding about with the jagged bass line. He too now crossed that threshold.

A shared nod between the two hebodies on stage and then a transfer of stares to the shebody. Her back to the audience, she brought teeth to the metal gridding on the microphone and vocalized.

The shebody's voice was both liquid and sharp. The stuff of vocal chords stretched and pinkening with microlacerations within its tissues. A howl and the cooing of mother-to-child transubstantiated into one single aural force, rippling with harmonics. A waveform that seemed to exhibit properties of square and saw-toothed and rounded sinusoids, depending on which transform of the wave you may happen to hone in on, but, through some property of higher-level calculus which Dee only grokked at the most cursory of levels, has the shape of none of them. The emotional vector of said howl-coo exhibiting joyful and orgasmic and plaintiff and enraged and lonely valences as well.

*You can't change [INDECIPHERABLE] it's lost and abominable.
Without your mother's [INDECIPHERABLE] wont happen this way.
To the despot of unhappiness: Why do you trust facts?
And [INDECIPHERABLE] it to your [INDECIPHERABLE] indifference
Don't you know change happens within and between?*

Of course the crowd exploded at this all. Bodies leapt and tumbled over one another. Limbs flailed. Heads bobbed up and down, the mass of them appearing like a flesh arcade game of Whack-A-Mole from Dee McRoger's youth. Torsos flexed and crumpled. Buttocks and hamstrings tensed and relaxed. The synergies of their movements creating a pit like a living superorganism, emergent from the bumping and grinding of its parts.

The Pit-Thing undulated and writhed. Its internal movements seemed to be the engine of the sound coming off stage. As if as the Pit-Thing grew and expanded itself, drawing more head-nodders into body-slammers, the music too scaled up. Not so much a discrete modulation—a change in key, a crescendo, a quickening of tempo—but an increase in viscosity. A thickening, an enriching of the vocals and guitar and bass and the pops and fizzes and hums and whirs that arise between them.

A baldheaded and suspended hebody, body weight approx. \geq 250lbs arabesqued overhead, the tips of his fingers and back of his palm grazed the ceiling piping, before rotating and swan diving into the crowd. The forearms of many moshers joisted him up and carried him across the Pit-Thing, after which he was deposited at the Thing's perimeter. With his arc and fall over the many-bodied body, Dee could hear the slightest swelling within the vocals. If the mosh pit was a superorganism than New Ape Idea was its voice. The sound of its own growl igniting it all the more.

Well it's an automata of course. An assemblage of state machines. A network, not nec. neural. A complex system. Why are there so many names for the same shit? Each

punk is a node that transmits its state to all its neighboring nodes and they do the same. I'm, like, pretty sure ants have a similar interaction scheme. Totally Marxist little things. No division of labor. Shit, we should write a song about ants. The punks'll eat that up. Or would that conflict with the trendy paleolithic punk philosophy going around? Crap, we're spewing that stuff now. Maybe if the crowd doesn't like us we'll set up a new ant theme. "Ant Behavior": could that be an LP?

The visitats of some of the punks, responding to the shifts in their blood pressures, skin temperatures and moistness and muscular flexions in the fibers beneath the tattoos, whorled and pulsed. Mandelbrot sets recouring in on themselves. Snowflake-type-objects in an infinite state of genesis. Fibonacci spirals, well, spiraling. The whole Pit-Thing was a recursive sort of animal. With complexities within complexities within complexities. That the changing of a single tattoo over time in a way reflects the shape of the entire mosh pit, occured to Dee, who felt really warm. Not in a fever-type vector or an over-arousal. Not the frictive heat generated by the Pit-Thing. And not a sweating warmth either, but something comfortable, uterine.

*Why draw so close to me? Do you not [INDECIPHERABLE]
"Not so," said the ghost to the machine.
[INDECIPHERABLE]
Can't you hear it scream?*

From the wall, Malloreys face looked smushed. Not unlike a modern painting assembled out of a greater concern for plurality of perspective than adherence to reality. Something not quite capable of expressing any sort of emotional vector.

"I told you," **Futurabold** leaned towards him and said, though her voice, evincing an air of disbelief, undercut any positive affect she attempted.

"Yeah. Well, I. Yeah" Malloreys returned, his head bobbing crane-like. "I don't know what you told me. But if you said anything you were probably right." He stared at his hands in order to make sure he was not slipped a hallucinogen in the past half-hour. It seemed he was not. "What are they called again?"

"New Ape Idea," said **Futurabold**, impressed as an amateur Evolutionary Ludologist could get.

"Uh-huh, Uh-huh. And what are they saying?"

1. I do not wish to turn around.
 - 1.1. Should I turn around the crowd will show itself to me.
 - 1.1.1. Of course, this will make me nervous
 - 1.1.1.1. By that I mean, I already entertain a state of anxiety. A viewing of the crowd will increase that.
 - 1.1.2. Is "itself" the word I wish to use?
 - 1.1.2.1. Or rather, would "the crowd will show themselves to me" be a more appropriate phrase?
 - 1.1.2.2. The real question is: is/are there any aspect(s) of a crowd that denotes it as a singularity or a plurality?

- 1.1.2.2.1. Multiple crowds would obviously warrant a “themselves”.
 - 1.1.2.3. An investigation into the structural/morphological composition of the crowd may be necessary.
 - 1.1.2.3.1. Though such an investigation would require my turning around.
 - 1.1.2.3.2. The crowd has a sort of grammar to it, I suppose.
 - 1.1.2.3.2.1. Each body an object a subject and a verb. Paradoxically.
 - 1.1.2.3.2.2. Though “grammar” implies certain rules.
 - 1.1.2.3.2.3. Are there rules to moshing?
 - 1.1.2.3.2.3.1. Though perhaps the grammar is loose. Not strict. Like that of a child learning to speak or Takashi when drunk.
 - 1.1.2.3.2.3.1.1. Or what I have been spewing into the mic so far.
2. This is why I prefer guitar: its structure necessitates that it may only be played in certain fashions.

The Charibdic endoderm of the Pit-Thing swirled clock-wise. Somehow. Dee couldn’t calculate whether this was due to physics, probability or psychology. Do all mosh pits eventually turn clock-wise? Dee had never made note of such before. Wouldn’t counter-clockwise be more appropriate for mosh rotation, you know, like, given the whole punk non-conformity thing?

Shit. Dee was stoned. Like, really, really stoned. Not in the couch-locked gravity-on-Jupiter weightedness of the usual stoned. Nor the somatosensory zigzagging of the synthesized stuff gave him or the slow logarithmic ascent of a spliff buzz. This was something stimulating. Electric. Bizarre. He found his legs walking. Arthritic stiffness evaporated from within his joints; a spark of testosterone perhaps summoned by the pituitary. The Pig-Thing drew closer, he could smell the perspiration-cum-trendy-dirtiness of its innards.

*&-//1-&-2-E-&-A-3-E-A-4//1-A-E-A-3-4//&-&-A-3-4//EAT-YOUR-GODDAMN-SPINACH//EAT-YOUR-GODDAMN-SPINACH//2-4//BOYSENBERRY-4-&//
 ~~~~~  
 (Keep ankles arched. Roll wrists into the upbeat. Lean paradiddle w/ thumb.)*

*1-2-&-3-&-4//CHOCOLATE-CHOCOLATE-3-4//&-2-&-3-&//1-2-3-A//1-2-3-4//&-&-A-4//1-2-&-&4//BOYSENBERRY-4-&//2-//BOYSENBERRY-4-&//1-2-3-A//  
 ~~~~~  
 (Flexion in lower-back. Shift to ¾. Christ, Takashi don’t do that with your hips)*

Besides an elbow to the jaw, the Pit-Thing absorbed Dee with little physical injury to either entity. Although Dee himself did not mosh, the moshing grew all the more because of his presence. Just as the kinetics of a pinball increases with the addition of bumpers in the arcade games of Dee’s youth. The Pit-Thing bursted into a wall of

shouts and cheers when the music ceased. A paradox that it should grow and come at the absence of sound, when it was from noise that the Pit-Thing germinated itself.

“Thank you and go fuck yourself! We’ve got 32 more for you!” said the bassist, snatching the mic from the shebody’s mouth.”

Part II

“The more specified a system is, the easier it is to cheat it.”
—Heinz von Foerster

“It’s not about isolation. It’s about time.”
—Diarrhea Planet, *Warm Ridin’*

2.1.0 — Adulation

Staph Infection

Issue 22

Editor's Pick—Go Bananas for New Ape Idea!

By Mickey Malloreay

Gentles and Ladymen! Cast off your Lazy Eyes! Through your tablets to the linoleum! (They always made better dinner trays than listening devices.) I am here, donning my only formalwear that isn't totally trashed to eulogize w/ you, dear readers, over the death of the Digital Age.

For too long we have consumed our music— our Goat Boners .mp4s and pirated Diarrhea Planet demos of yesterday—through the most unsavory of mediums. Those suits at the so-called “major labels” have doggedly tried to neuter the immaterial cojones off the punkgeist: the holy ghost of all that is rebellious, rude & DIY. They've clogged our sense-holes with their capitalist pig-rock. Music consumption in the past 30 years has grown from a simply aural experience to an entire epileptic fit of stimulation. To think that an “album” used to just contain 80 minutes of sound, not a prepackaged app containing games, animations (and of course advertisements) to bombard yourself w/ on the morning commute. Art is not an app for your contact lenses!

But, just as I was preparing to go out with the music, my vodka-and-sleeping-pill-cocktail sweating on my nightstand, fantasies of who would be the first to find my corpse and new “Zombie Punx Fuck Off!” chestpiece simming through my brain, I decided to pay one last to one of my favorite Hoboken haunts: Rule 30¹.

The place was packed with the grungy rawkers that normally frequent it. Apparently, venue-manager **Futurabold** McRogers tells me she originally booked Frida and the Felchers to headline, but some territorial hunter-gatherers turned their van's tires to Swiss cheese. Needless to say, when New Ape Idea took the stage, the crowd was already simming ways to heckle them off stage and then blog of their awfulness.

Did you read the headline? Of course they didn't suck. And no, New Ape Idea is not one of those cerebral avant-thrash units that coat their caterwauling in some sort of postmodern pretense. Neither are they electronic beat-machines that only sound good when your neurochemistry has been sufficiently saturated with methamphetamine and MDMA. New Ape Idea puts out good vibrations that are more organic than a vegan's diarrhea and fresher than the kale paste he ate for breakfast. In fact, New Ape Idea has such a medulla-meltingly original sound, it may be easier to describe the band by what it is *not*:

- Hyper-produced automated tween trash

¹ Dedicated SI readers may notice a trend in my reportage. Chiefly that I tend to give glowing reviews for just about every act to merge from New Jersey's crustiest of coves. This is neither conspiracy nor fraud. Trust me, beloved readership, when I say that under the management of scene queen **Futurabold** McRogers, Rule 30 has been putting up the crunchiest, most brewtal riffage to date. I don't know what it is to the place, but if you haven't made pilgrimage to this new Mecca of Punk get on your knees and start shuffling! If you're from out of state, let's hope you have some Neo-!Kung connections to get you across state lines.

- Highschool hxc tough-guys
- Gender-bending Queercore Burlesque-rock
- Jock rock, stoner sludge or anything with the word “pop” in it
- Forgettable²

This trio is *it!* Guitarist/voxist/Visitat enthusiast Isa Spines works the fret-board of her Jazzmaster like it’s a hated ex-boyfriend in a gimp suit³. To say she rips or shreds is a vast understatement. Spines is the rare guitar virtuoso who can milk her nickel-plated Ernie Balls for every harmonic they’ve got. Think back to when you first stole your Pop’s “Screaming Females” CD, or your grandma’s “Dinosaur Jr.” cassettes. Yeah, the shebody is that good.

Spines’ six-stringed heroics though are effectively counterpointed by New Ape Idea’s solid rhythm section. Bassist Tak Miyagi-Edelstein plays like Sid Vicious with twice the taste, 2/3rds the talent and way, way, way more expensive gear. I’ve never seen a Rickenbacker withstand such abuse!⁴ Drummer Doug Lamarck-Ganoush blasts beats with monk-like focus and Spartan athleticism. Watching New Ape Idea play⁵ I get the feeling that this Lamarck-Ganoush guy was into some serious math-core as a young’un.

New Ape Idea’s sound is like Nitrous-Oxide for the blood. It’ll awaken your inner chimpanzee, and, let me tell you, he hasn’t been let out in a while. In fact, he’ll probably want to scream, hump and/or pummel the nearest hominid into submission. And that’s what the mosh pit did. Hebodies and shebodies, I have never seen a pit so wild in a few geological epochs. New Ape Idea is composed of the sort of virtuosic thrashers that can adapt to their crowd. A wilder mosh begets wilder music which begets wilder music. You get the idea. An impressive feat rendered even more impressive when one realizes Spines has kept her back to the audience the entire set. The shebody must have ESP.

Traditionally, the punk aesthetic has privileged attitude over sound, emotion over skill. While the New Ape triage produce music that is hardly baroque, the three are goddamn good at what they do. That’s not to say that Spines can’t wail. She can, and her lyrics are like something written by Shakespeare with a hangover. Take this couplet from the first song of the set:

“Sun rises on an empty scene//I hope you drown in gasoline.”

Right? Right??? I don’t know what they mean, but I can certainly feel it. Although Spines was more than certainly available for an interview, she refused to comment on any of the post-set questions I volleyed at her back stage. Like I said, the shebody has attitude.

Overall, New Ape Idea is both a force-to-be-reckoned-with and a trio not-to-be-missed. Ten out of ten. Five stars. Two thumbs up. Blah blah blah. Currently, they have no music available for download/torrenting so any interested parties will have to see them

² Unless you have connections with the right synthesizer, in which case, send me an email and hook me up!

³ Or ex-girlfriend. I don’t wanna assume.

⁴ Speaking of equipment, New Ape Idea packs more gear than an ElectroHarmonix warehouse. For a trio capable of producing such raw, unbridled punk, they step on more fx pedals than I knew existed.

⁵ And you *have* to watch New Ape Idea play. Seriously, it’s the best live show I’ve seen in, like, two weeks. And I go to a lot of shows.

live⁶. **Futurabold** McRogers informed me, given the trios astounding debut, they will now be headlining weekly shows every Friday night at Rule 30 in Hoboken.

2.2.0 — Sets

⁶ Remember what I said about the end of the Digital Age?

“Whatever Mercado told you, it was likely an exaggeration,” said Mr. Halisdol, his hands folded behind him priest-like, as he gazed out over the swampland below. “He’s an excellent businessman, ergo he’s a pathological mistruther.”

Sets nodded and returned her attention to her tablet screen. The eternal hunt for that perpetually-missing semicolon.

“For example, I’m sure he made an enormous stink about his ventures into nanotech.”

Julia sat up a bit as she spoke. “Oh please, I know we don’t have any reliable robotics at that scale.” She added in the errant punctuation mark with a triumphant key stroke before crumpling her spine back into code-monkey posture. “Like, I mean, I knew a couple engineering student back at school, brilliant shebodies, they liked to vaporize non-synth and build motors that could fit within a strand of polypeptides. It was certainly impressive in a way. But even they couldn’t figure out automation at that level.”

Mr. Halisdol turns towards her and sort of smiles, his lips closed. “So, then, what did you think of Mercado?”

“Same as you probably: he’s full of it,” said Sets, who then attempted eye contact. Mr. Halisdol looks underfed. His breath smelled ketotic the times she got too close to him. F2Fing with him was always uncomfortable. “We only spoke a handful of times, during the interview process.”

The Meadowlands smelled like dead birds, Julia thought as she coded. Even whatever state of the art air filtrations system the Melodica building employed couldn’t mask the stench completely.

“I assumed that whenever Mr. Mercado was talking about his, what was it called?”

“Chaperoni & Cheese.”

“Right. That. He was speaking of microbots. You know, action at the macro-molecular level rather than the atomic.”

“Very astute, Ms. Sets.”

And Julia just shrugged slightly.

“They were overhyped DNA walkers,” Halisdol added, his voice phlegmy. “The technology has been in development for decades, nobody had capitalized on it though.”

“Walkers?”

“That’s what I’ve heard them called. I suppose the name was created to emphasize their movement.”

“Why wouldn’t they move,” said Julia, scooting a back a bit from her workstation.

“That’s the wrong question,” replied Halisdol, who turned from the window and made another F2F attempt that made Julia taste bile. “It’s not about whether or not they move, it’s the question of where computation lies. See, for too long roboticists tried to focus on thought as occurring within the robot. You know, between while loops in the internal programming. That produced some pretty brittle AI, so eventually researchers had the bright idea of off-loading thought onto the robot’s structure.”

“Morphological computation,” said Julia like, no shit. “We learned that first semester at UG.”

Halisdol touched the blade of his fedora then tugged at the knot of his tie. “Of course you did. But you are the privileged recipient of a modern education. These facts were less obvious in the early tens.

“Essentially, the Walkers that Mercado bought were spider-shaped artificial organelles. Each leg consisted of single stand of deoxyribozyme. The legs are able to cleave RNA substrates, so long as they have the correct ribose moiety count, which may be found across a DNA matrix. The substrate is cleaved into harmless organic compounds. They do nothing to the cell’s functioning. Once a substrate is cleaved the walker will be forced to rotate so its legs may attach to the next bit of RNA. That way, it can walk, turn, stop, you name it. All depending on the structure of the walker and its surroundings.

“These were of course the crude designs from several years ago. With funding from Mercado we were able to make them smaller, faster and move without any destruction to the cell’s biochemistry. Not to mention we made them trackable. Again, the man is an entrepreneur, not a scientist.”

Julia palmed at the back of her neck while Mr. Halisdol spoke. “How do you remember all this? I didn’t know you had a background in chemistry.”

Mr. Halisdol gave her another sort-of smile and blinked on a projection from his Lazis. Schematics of the walkers, long squiggly chemical things, appeared before them.

“So they can move,” said Julia. “Where’s computation in them?”

“The movement is computation,” said Mr. Halisdol, this time showing some teeth dotted fuzzy white with plague. “Cognition is not a noun, it’s a verb. It’s dynamic. Something one does, a bubbling forth. The Greeks had a word for it: ‘Autopoesis’. Once you realize this the whole universe makes much more sense. And, paradoxically, it seems much less simple.”

“I get it,” Julia lied. Engineers, she thought, were not built to grapple with high-caliber metaphor. Let alone ones in dead languages.

Two cracks resounded: when Halisdol rotates his head ninety degrees right and then left. Why her boss never took off that old-ass hat, even when indoors, is a greater mystery to Julia Sets than the dynamics of any biochemical automaton. Mr. Halisdol always would stare out of those windows, tepid and anxious. As if those mutant mosquitoes zipping aimlessly about those marshes below them were buzzing a death plot. The man turned from the window and treaded towards his desk where he sat but did not type.

“How is the Markov analysis patch going?” he asked after a short while.

“I finished it two weeks ago,” Julia wanted to say but didn’t. “Fine. I’m finished. I’ve debugged it pretty thoroughly, but please inform me if it’s not acceptable,” is what came out instead. Mr. Halisdol nodded and asked if she could send it over. She blinked twice then nodded, zipping the code file. Julia squinted her eyes shut and opened them, Mr. Halisdol did the same.

Several measures of silence. Just the whirring of air ionization and the barely-audible whooshing of Automobiles® driving outside and forty stories below, punctuated by the percussive tapping of Julia Sets at work. She made sure to request an old-school keyboard from corporate when she was hired. It was more ergonomic, she felt, than those flat plexiglass tablet keys. Or worse laser projections. Those made her feel like an imbecile, playing secretary tap-tap-tapping away at the flat bamboo surface of her

desk. She enjoyed the solid feel of plastic keyboard. The plastic giving way to the spidery movement of her fingertips, punching out an if...else or fractillic binary search tree made her feel like a virtuoso pianist. The victorious tap of the semi-colon a fermata'd end to a symphony movement.

“Ms. Sets,” Mr. Halisdol croaks. He clears his throat. “Do you have any experience working with, well, children?”

“No I don't.”

“Toddlers? Infants?” He smoothes the pleats of his kakkhis.

“...”

“It didn't say so on your resume.”

Julia rubbernecks around, facing her boss. “ Well, that's because I've never worked with them.”

“Right, right.” Halisdol nods gravely and excuses himself to the restroom.

It's strange that the whole office is shared by only the two of them, Julia has thought several times in the past month. Their office, while not particularly big, feels open, expansive. Not that there are empty cubicles. But the small banzai plants in the corners, the high expansive windows, which seem to render the outside smog sunny and the chilly bamboo tilling give the place an oriental feel.

Not that Julia Sets has held many jobs before. Though at the several lab internships she undertook while a student at Google she was usually placed in a sea of cubicles. All in depressing white. Here she and Halisdol shared no walls between them. Their presence to one another was unavoidable. Perhaps some of the higher-ups found a more intimate work environment yielded higher productivity.

But that couldn't be the case. Melodica seemed to have several workers. Whenever Julia left her lab she saw a huge variety of suits and researchers, though she knew no names. Everyone walked about quickly, with downcast eyes. Orientation for Julia consisted of Mr. Halisdol giving her a quick, mumbly tour, wearing the same fedora and beige suit he always does, before leading her to a desk, presenting her with a pair of Lazy Eyes and a memo giving her first assignment. Intimacy was not one of Melodica's core virtues.

Mr. Halisdol returns, shaking his hands dry, and asks what two to the eighteenth power is.

“Two-hundred sixty-two thousand one-hundred forty-four,” replies Julia without a hitch.

“Of course!” says Mr. Halisdol, a bit pained. He sits.

Like many white hat coders, Julia feels particularly ignorant of any of the (isol/alien)ating aspects of a corporate gig such as what she's doing at Melodica. Code is discrete, traceable. Often to the point of brittleness. People, and all the social schemas that come attached to them are brittle as well, but in a whole different vector. Facial expressions, body language and prosody all had to be constantly scanned for hidden packets of information. Sure there was redundancy between them. The emotional valence of an interlocutor was not always so obvious. Wearing Lazy Eyes, the only required element of dress at Melodica, only obfuscated the whole mind-reading process. What, with weather updates, advertisements and emails constantly flooding one's field of vision.

At her console, Julia could sometimes reach a special form of working nirvana. “Flow”, as it is called sometimes. At UG she once read a study concluding the average adult brain may only process a pitiful 126 bits/second of information. Of course, most of that processing is dedicated to vestibular coordination, proprioception and the like. It was obvious why Julia often felt as if her consciousness module drifts between various perceptual pathways. Even the blisteringly loud sound of construction outside may be phased out with relative ease after a few minutes of busywork at her desk. Unlike many of her peers, with their goldfish attention spans, Julia could dedicate most of her processing power to a single task for hours upon hours. Any coding or software engineering project, provided that its solution is not immediately obvious, could elicit a state of flow within a matter of minutes. Even quicker if she could listen to music. Most of the analysis patches assigned by Mr. Halisdol were sufficient.

“Do you like children?” he asked.

Julia picked at one of her many earrings as she spoke. “In what sense? I don’t dislike them.”

“Would seeing infants with developmental disabilities disturb you?”

“I’m not sure. Probably not, I mean. They can’t help it.”

“What about infants in pain?”

What was the deal with this hebody? Julia unzipped a recording Doug sent her and played it through her earbuds. Another bonus behind these Lazy Eyes: a wireless in-ear listening system. Totally portable and comfortable, too. No need to listen to Mr. Halisdol blather on.

“I have a project.....Children.....Therapeutic Measures.....”

Courtney Christ, the group sounded good. And this was just a live recording. In a studio they could sound phenomenal.

“Mostly orphans.....Patches.....Julia?.....Julia?”

With surprising speed Mr. Halisdol rocked up from his desk and tapped her on the shoulder. “What are you listening to?”

Shit, Julia was on speaker mode.

“It’s a band,” she stammered. “A few friends from University. Sorry, I didn’t mean to turn it on, must have been a glitch in my Eyes.” Julia could feel her face growing warm with embarrassment. Maybe Mr. Halisdol would spare her any rebuking. Or, better yet, take a hint and shut up.

His face gnarled up in a twisted gleeful smile, lips open but toothless, eyes squinted and sparkling, Mr. Halisdol took an audible nasal inhale. “And, do tell me Ms. Sets, what are they called?”

2.3.0 Invitation

Doug pressed his nose right into the binding of that hipster loggy text while he read. He'd been pecking at several works by this Feldenkreis guy before and after shows. Something about the mind/body connection not really being a connection at all. They're the same entity. For Takashi that sounded obvious enough. No need to write several treatises on it, but the paperbacks seemed to help Doug drum better, or, at least, keep his cool on stage. He's sat up straighter too, his spine erect, almost pompously so. Whereas as Tak, Isa et al. usually just slouched atop of **Futurabold's** milk crates.

"Keeping cool," wasn't always the most desirable quality for a punk to have, Takashi thought. Tak, who preferred to jump around all ape shit while plucking at his bass, playing grabass with the moshers at the lip of the stage. It wasn't a good show unless somebody's nose was bleeding by the end of it, right?

But then why this huge adulation of Isa? The crowds that fill Rule 30 grow bigger every show. **Futurabold** can't even stand on the sidelines and watch, the venue is so packed sometimes. She's had to listen from her office. They always chant her name too. Before New Ape Idea takes the stage. And when they exit. And that shebody never is one to bid affection from anyone, let alone the audience. So far, she's usually performed with her back to them. Or her eyes shut tight. So cool her temperature never breaks in to the double digits. Kelvin.

As lame as Doug's post-show Feldenkreis ritual was, Isa's was even more redundant, Tak thought. Isa liked to tune her Jazzmaster. Helpful before shows, obviously. But totally useless in **Futurabold's** office, while waiting for the crowds to dissipate. And it was never so much of a tuning as a random, spastic turning of the chrome tuning keys at the guitar's head. Like, what the fuck, right? At least Takashi would engage with the punks. Swap stories, give tips to up-and-comers. What's a band without self-promotion?, he always thought. Then, when enough had left, he'd head into the carpeted room with the cot for a cigarette and a half-hour schluff.

Upon reawakening, Takashi headed back into the office. Doug and Isa, reading, tuning. A nod from Takashi is unreciprocated. **Futurabold** is at her console, waving her fingers around, probably filling out the calendar for next month, or playing Minesweeper.

"Would you three be interested in headlining two shows a week?" she said.

Isa grunted something, Doug did not respond.

"How big of a cut from ticket sales are we gonna get?" Tak answered.

"You want a cut now?" said **Futurabold**.

Takashi pulled a red milk crate across the floor, it emitted a thin friction groan as he did so. "Your ticket sales must be at an all-time high—"

"—Sold out shows are nothing new."

"Yeah, but you paid most of 'em right? We're local. No gas costs. Nothing. If you want us to play, yr gonna have to pay."

"You're not our manager," interrupted Doug.

"Shut up DLG," said Tak. "Yr just as broke as I am." He sat.

Futurabold scaled down her screen and pushed it to the side before leaning over her desk towards Takashi. "I thought letting you play here was a favor. You needed asylum, I said I'd give it to you for two months, and I have."

“And I built you a computer, and brought in absurd ticket-sales on the regular,” Takashi folded his arms across his chest.

“With stolen software—”

“Pirated!” Takashi quick-like. “And upgraded by hand. Don’t pretend it isn’t, like, the greatest, sleekest, most useable OS you’ve ever encountered. Not that a bonerbo like yrself could even appreciate it.

A distention of the zygomaticus followed by a flexion of each of **Futurabold’s** obicularis muscles formed a weird smile-smirk, at least as Takashi could scan. Weird facial expressions always made it hard for Tak to sim whatever the shebody’s emotional valence was at the moment.

“Bonobo,” she corrected. The various emotional vectors across **Futurabold’s** facial musculature neutralized, the aggregate of them creating a placid Markov equilibrium. And then a whole rest with a liberal fermata on top, so long that even Doug and Isa looked up from their personal post-set distractions.

Doug laid the Feldenkreis paperback across his lap, careful not to bend the spine. “Takashi”, he said, “**Futurabold** has done us a favor, letting us play here. We don’t need extra conflict.” He raised a didactic finger up, caught himself and lowered his arm. Takashi could never decide whether Doug was a more or less efficacious arguer because of his lack of gesture.

“A favor?” Tak snapped. “Puh-leeze The Neo-!Kung profiteer is working us over while fattening her wallet. We owe her nothing.”

“I’m putting myself at legal risk harboring you,” **Futurabold** said.

“You think any other punk band you let stay here wouldn’t have a record?”

Futurabold sat back in her chair. “Probably not. This isn’t like it was forty, fifty years ago. Punk is just a word, a label. It’s got sense, but no contemporary referent. Waiting for any and every suburban dweebazoid poseur to grab and stick on themselves. Most self-avowed punks don’t have much on their records other than ‘honor student.’”

“Not us! We’re the real thing!” Tak, exuberantly happy to have said that in earnest. “And we fill up Rule 30 night after night because of that. Because we’re not just poseurs!”

“Speak for yourself,” said Lamarck-Ganoush.

“Rule 30 fills up because there is nowhere else to go,” said **Futurabold**. “Those ‘real’ punk bands live in their van and, well, tour. From what I gather.”

“We could go on tour—“

“And what? Transport millions of dollars of stolen goods across state-lines? You know troopers will inspect your vans at the borders. Unless you try and cross through Neo-!Kung territory. And you’ll need either lots of money or an inside connection to do that.”

She smirked. Was she blackmailing them? Takashi thought. It seemed uncharacteristic of her, to threaten to sick the paleo-people with their guns on them if they defected from her venue.

Maybe she could just read him? She simmed that Tak simmed that New Ape Idea had no other venue options. Takashi loved to argue, but hated doing it when anything was at stake. For Tak, interfacing was a kind of nakedness. An honesty he couldn’t control. Verbiage and gestures, they could all be willfully manipulated. He could choose the right

things to say and the best hand gestures to punctuate them with. Though the face, with its hundreds of muscles involuntarily contracting at all times, that was a liability.

There must be a term for it, the paranoia Takashi had. The constant fear that one's thoughts in all their surreal perversity were somehow leaking out from the head and into the atmosphere. That every other person was cued in to some hi-def real-time transcript of his thoughts but was too mortified or polite to ever tell him.

If there was a leak, Takashi figured, his face must be it. The face being the brain's main info output vector. The way some could tell, just by how crinkled the corners of his eyes were, whether or not his smile was genuine.

Takashi turned around, facing Isa, twiddling her chrome knobs. Where Takashi felt his brain had sprung a leak, and all of his inner contents were spewing out into the atmosphere, like a busted oil pipeline in the ocean, Isa, her reckoned, thought the opposite. An introvert, Isa feared that she was a sort of giant bracket on the world. That everything around her was actually contained within her.

It must be a paradoxically a comfortable fear though, Takashi thought. Worrying that you are like a giant amoeba, having assimilated everything around you into your own goopy cytoplasm.

"It's about exchanging a good for a service," Takashi muttered. "Basic economics."

"Three unemployed Google grads hungry for money," **Futurabold** smiled coyly, fingering the clear glass square atop her desk that was her monitor. "You could get a job. Work as a code monkey, I'm sure there are thousands of gullible start-ups deluded enough to hire you."

"And you would be out of a band."

"If you want to earn anything," said **Futurabold**, her voice exuding a Dorian frankness, "Why not record an album?"

"And have it pirated?"

"So now, Mr. Miyagi-Edelstein, you are anti-piracy?"

Recording was in itself a problem for New Ape Idea. If situated in a recording booth with soft insane-asylum egg-carton walls, flat snowshoe condenser mics and a sound-board with an impossible number of switches, the three would be doomed to sound ordinary. Like the semi-amateurs they were.

Takashi recognized this from their first show. A recording booth would deprive them of a necessary context. Like baby rhesus monkeys clinging to steel wool with a rubber nipple instead of their mother's teat. What transformed Doug, Isa and him from three musical bumpkins toeing up against poseurdom, to the primal punks of New Ape Idea was Rule 30. Or, more importantly, the élan of a few hundred visitatted punks thrashing out their collective discontents with Mom, Dad, Uncle Sam, their job/lack of one et alia. Their shimmies and slams and atavistic, antiauthoritarian anti-dance, aggregated, modulated and distorted by Takashi's SHANNON.

Tak took a moment to crack his knuckles in satisfaction, simming it all. Though far from the musical talent that Isa or even Doug was, Takashi felt he had successfully earned his place in the band. Sure DLG and Spines had ability, but the SHANNON added a new dimension of nuance to their sound. It allowed them to sing the siren song of the pit's own moshing back to itself. The necessary feedback component that turned a chaotic phase-space into a dynamical system. The music and dance a strange attractor. Ergo,

without the necessary left hand side of the equation, mosh pit + SHANNON, there could be no equivalence to the right: New Ape Idea. In practice they sounded flat, weak, banal.

“It makes sense you joined the Neo-!Kung,” said Takashi to **Futurabold**, smiling with calculated insouciance. “You are a natural-born capitalist.”

“Excuse me?”

“I bring you millions, maybe billions of dollars of new equipment plus revenue,” Tak attempted as best he could to affect a cocktail of Japanese humility with Jewish guilt, head bowed slightly, voice nasalized, “And you only seek to alienate me from my creative labor.”

With a resounding “Fuck you!” **Futurabold** slammed her hands on her desk, rattling the monitor. Perhaps Marxist rhetoric was not the best approach to win over an ex-anarcho-capitalist, Takashi thought. Good thing **Futurabold** stopped him then, he was just about to quote Adorno.

Doug leapt up to his feet, folding the book under a dampened armpit as he did so. The guy seemed to be moving faster in recent weeks, Takashi had noticed, maybe lost a few lbs around the chin too. Isa looked up as well with an expression of consternation mixed with surprise. Her hands remained on the Jazzmaster.

Doug took several slow breaths, in through the nose out through the mouth while he spoke. His voice level with a soothing valence. “Please Takashi, let’s not bite the hand that feeds.”

“You call this feeding?” Takashi’s brow exhibited impressive vascularity at times of emotional distress.

Doug cleared his throat, as if summoning the logical faculties necessary to counter Takashi’s remonstrance. Meanwhile, **Futurabold**’s nostrils flared. Takashi had never seen the shebody—normally cool and nonchalant—so royally pissed.

“I’m with Tak,” said Isa, setting the blue axe by her side.

A shared look between the other three. Pupils sliding back and forth, from tear duct to crows-feet. Looks of surprise plastered across them. Takashi himself frothed with a sort of warm pride. Like that of a parent whose mute child uttered her first words, he simmed. And better yet a tie-making vote in his conflict with **Futurabold**.

But Doug’s caveman Nokia flip-phone had to ruin Tak’s scheppin nachas. With that tweedle-dee ringtone they never updated. Courtney Christ, the thing must have been a training-phone from, like, 2006. Did he not get a government Smartphone when he entered kindergarten?

“Excuse me,” said Doug in a hush as he pulled the brick of Finnish zeerust out of his cargo shorts. He depressed a button on the phone’s side, silencing it.

“If I’m going to continue to sing, I’d like to at least get payment for it,” said Isa, an unusual fierceness in her eye contact. Well, eye contact alone was unusual for her. “I’ve been simming with the idea of quitting. Or, rather, at least stepping down from vocals.”

“Why?” said Takashi, breaking the ensuing silence.

“I hate singing,” she said.

“So, what’s new?” said Takashi. “You always hated singing.”

“You fail to simulate. I *loathe* it. I feel nauseous. The sulci of my brain fill with pus.”

“Well Isa,” Doug started, “You’re really talented at it. Perhaps you don’t realize your own potential, bad posture can do that.”

“I should correct myself,” said Isa. An expanding Mandelbrot set worked its way across her forearm. “It is not the singing I loathe, rather, it is the singing in front of others.”

“Stage anxiety,” said **Futurabold**.

“How do you even see the crowd?” said Tak. “You keep yr back to ‘em the whole time.”

“I am still aware of their presence.”

Again, the trebly digital ringtone of Doug’s phone cut in. Takashi could hear it hum and vibrate in Doug’s pocket.

“How does that still work?” Tak, massaging his temples.

Doug coughed a bit. “I, uh, well, I take good care of my belongings. It was my Dad’s. From when I was a toddler.”

“If you need money, you should sell that. I’m sure the Smithsonian would put it on display,” said **Futurabold**. “It must be an antique.”

“Worthless,” said Takashi. “Maybe save for the little powdered fold inside some of the transistors. We have landfills full of these. Besides—“

—“It has sentimental value,” Doug added.

“Well, turn it off!” said Tak. “Or put it on vibrate. Or something.”

“I can’t shut it off,” said Doug. “I’m afraid I’ll blow the system when I turn it on again. It’s a very fragile device.”

“It’s a fucking Nokia,” said Tak.

It rang again, causing Takashi to tug at his Scandinavian blonde spikes. Doug flipped the screen up, it giving an audible plastic clack as it did so.

“Excuse me,” he said. His shorts made a swishing sound as he exited **Futurabold**’s office and closed the door behind him.

Tak eyeballed the closed door. “Well,” he said. “If we were to take a vote, of all currently present on the issue of New Ape Idea’s future payment, I would suspect you would be outnumbered, Ruthie.”

“Don’t call me Ruthie,” **Futurabold** said. “You didn’t know me then.”

“Uh huh. All in favor of future compensation in the form of a percentage of ticket sales to New Ape Idea, please raise your hand.” Takashi grinned at **Futurabold** monkey-like as he raised his.

“Look behind you,” she said. He turned to see Isa palms were at her sides.

“What? Spines, I thought you said—“

“I said I’d prefer compensation if I am to keep singing. However, ideally, I would prefer not to sing at all.”

“Well that screws us both,” Tak said to **Futurabold**, when Doug reentered the room.

“How so?” **Futurabold** replied.

“If Isa won’t sing, we have no band. You have no profit. We’re at a stalemate.”

From outside Takashi could hear the muffled sound of Doug pacing, talking on his phone.

“Why can’t you just put a video on your Lazies or something?” Tak craned his head around to Isa, his body followed suit. “It’s the 21st century rule for social anxiety:

stare at a screen with your digital happy place until the presence of all others seems to evaporate.”

“I would,” said Isa, “but I’ve been playing blind.”

“Excuse me?”

“I lost my Lazy Eyes. Two months ago. I haven’t found them since.”

“Couldn’t you buy another pair?” **Futurabold**, kneading the knuckle of her index finger.

“I can’t. Too expensive.”

“Aha!” Takashi extended a digit up in the air. His nail overgrown and purpled from vigorous bass playing. “A classic triple bind. Each of us is imposing a condition making the wishes of the other impossible to actualize. If I studied a bit more game theory as an undergrad perhaps I could weed this one out.”

Takashi gnawed at his nail in contemplation, unearthing a bit of the dirt caked beneath the enamel with his teeth.

“Though perhaps this isn’t a problem math can solve. It’s a problem with language,” he said. “Before I addressed the issue as payment for ‘New Ape Idea’. I’m gonna say that Isa singing is an unchangeable essence of the band. It is necessarily signified by the signifier. We’ve never played a gig as ‘New Ape Idea’ without Spines on vocals. We change that, we’re back to being ‘Shackled Uterus’.”

Futurabold pouted her lips together and folded her arms across her chest. She drummed her fingers on the meaty paleness of her underarms.

Isa spoke first. “Yes. A problem of reference.” She nodded at Takashi in understanding. “This entire schism revolves around whether the label ‘New Ape Idea’ refers to a band with me as a singer.”

“I’m inclined to say it does,” said Takashi.

“As am I. To my chagrin.”

“So yr in?”

The door creaked as Doug opened it, panting as he entered the room. Beads of sweat dribbled down his neck, zig-zagging around his stubble like metal balls in an old plinko game.

“We’re having a vote,” said Takashi without missing a beat. “Do you think we should be getting a slice of ticket income?”

“Did **Futurabold** consent to this?” Doug asked.

“You think democracy requires complete consent?” was all **Futurabold** replied.

“I voted for no conflict.” Doug said.

“No longer an option, DLG.”

“Well”, Doug pulled a handkerchief out of one of his bulbous pockets and dabbed at his neck and brow. “I suppose I vote for payment. But we may have other options.”

“See!” said Takashi. “Fifteen percent. Five for each of us.”

“Other options?” Isa picked up her guitar and slung the strap over her shoulder. She chucked out a muted chord.

“I received a phone call from an old friend from university—“

Takashi emitted a loud guffaw. “A phone call? Seriously?”

“My phone was ringing.”

“I can’t tell if that’s hip or obnoxious,” said Takashi. “She couldn’t, like, email you?”

“She apparently tried, but got no response.”

“Who was this?” said **Futurabold**, leaning over her desk.

“Julia Sets. A good friend of mine.”

“Your girlfriend from sophomore year?”

“Not exactly girlfriend, wasn’t that sort of shebody.”

“But she was in our room all the time yeh?”

“This is true,” said Doug. “Apparently, she’s working for a satellite R&D department for some microtech company. She heard a bootleg I sent her of our first show and, for reasons indeterminate, her company is looking to book recording artists and she’d like to have us come in.”

“You recorded us?”

“With my phone,” said Doug. “I keep recordings of all my musical endeavors. It was a habit I developed back when I had my theremin.”

“Why didn’t you tell me?” said Takashi. “Us.”

“I didn’t sell it or anything like that,” replied Doug. “Just a few low-fi recordings for Babs and a few friends. They came out surprisingly well given the limited capacities.”

Takashi pivoted the ball of his foot into the shag carpet below, rotating it back and forth as he thought. “You realize, whatever deal they may offer us, Lamarck-Ganoush, we will likely not be able to sound anything like we do live. Different SHANNON parameters and all.”

“I assumed that,” said Doug. He looked towards Isa; she seemed unusually interested in the conversation. “Though, I’m not exactly sure they want to record us. At least not in a standard record deal. You know, make a whole applet with audio and visual effects for mass consumption. They’re a microtech company, after all.”

“So what do they want with us?”

“Again, indeterminate.”

“A phone call,” said Isa, “seems a quixotic method of proposing such a deal. Compared to the multiplicity of other mediums for communication available. Though I am not an expert on the subject.”

“What do you mean?” said Takashi, though he understood. There was just something intriguing about hearing Isa speak at length. A rare bird, Isa’s monologues were, they elicited steadfast attention from even a loudmouth like Takashi. Like that of a young child hearing fables from a mother figure.

Isa shrugged and shook her head. “Speaking into a microphone and having another’s voice spoken directly into your ear. It’s so, well, *intimate*.” She sat back down on the crate and twiddled at one of the potentiometers by the Jazzmaster’s bridge. “How does one stand it? Why not send a message. Something written, typed out, epistolary.”

“Sets did try and contact us apparently,” said Doug. “For weeks. The call was a last resort.”

“I saw nothing,” said Takashi. “And I’m pretty vigilant about this kinda stuff.”

“She apparently also sent a message to **Futurabold** via Rule 30’s website.”

“Strange,” said **Futurabold**, “I didn’t see anything either.”

“Hold on,” said Takashi, “Lemme see.” He walked around her desk, trailing the pads of his fingers along its wooden top as he did so. **Futurabold** threw her mass to the side, hoping to move her rolling chair in deference to Tak; however, because of her weight, an inability of her chair’s wheels to turn in the shag carpeting, or an interaction

effect of the two, she did not budge. With an audible exhale she stood, relinquishing the black desk chair to Takashi who took it without looking at her.

In a series of movements, so fluid and skilled the required little conscious thought, Tak picked up the monitor from the desk top, affixed it to its stand and expanded it into a Golden rectangle, width approx. 1 meter. Like the conductor of a symphonic orchestra he waved his hands in the air, sliding through screens and windows.

Futurabold watched silently. He hoped she was taking notes.

“The only results I’m getting for the search terms ‘Julia’ or ‘Sets’ are irrelevant. ‘Sets’ is giving me way to many set-length requests from booking bands, but I don’t find much scanning over them,” he said. “What was the name of the company she works for?”

“Something like ‘Melodica’,” said Doug.

“Spelling?”

“Unsure.”

“Say it again,” Tak ordered.

“Melodica.”

“Slower and more loudly.”

“ME-LO-DI-CA.”

“Thank you,” said Takashi all singsong. “I’m running a search using your voice input and a text-to-speech patch.” He thumbed at his nose. “Still nothing.”

“How bizarre,” said **Futurabold**.

“Agreed,” Doug wiped at the lens of his glasses with the bottom hem of his shirt.

“Ah! Hold on, I’ve got it,” Takashi popped a little bit out of his seat as he spoke. He twirled his index and middle fingers in a spiraling pattern like an amateur hypnotist, lips closed but obviously grinning behind them. “Yes, she’s been emailing us, several times now for the past 22 days.”

“So why didn’t we get it?” Doug asked.

“For whatever reason, all the messages were filtered out as spam.”

“How could that be?” said Doug. “The Gmail accounts from school?”

“Rule 30 isn’t on the UG server,” said **Futurabold**.

“Correct,” Tak added, eyes still glued to the giant translucent screen. “I build the mail filtering system myself.”

“So was it a bug?” Doug, like c’mon.

“As I said, I built the system myself. There are no bugs.”

“So what was—“

Tak swatted his hand in front of him, as if batting away Doug’s nagging. He initiated two media players and an internet browser in doing so. “I’m looking, I’m looking. Oy.” Takashi called upon the laser keyboard and typed soundlessly while the other three waited. “Bizarre,” he said. “Sets tried to reach us through her company email address right? But it was filtered out because it was a governmental ISP.”

“State?” said **Futurabold**.

“Nah, Federal,” said Takashi, bewildered.

“Why are messages from governmental ISP filtered out?” said Doug.

“Mostly cuz they piss me off.”

“Maybe **Futurabold** would want those messages—“

“I was under the impression that **Futurabold** is a punk.”

“I just study them,” she said.

Takashi rolled his eyes like, whatever.
“Even so,” said Doug. “We’re in a legal snafu, shouldn’t we be keeping a close eye on anything we get from the government, not shuffling them away?”
“What, is the police gonna email us and be like ‘You stole shit, yr under arrest!’” said Takashi.
“Not my point,” said Lamarck-Ganoush.
“You never have one, boyo.”
“Are we back to that again?”
“What does she ask?” said Isa.
Doug approached the desk and read over Takashi’s shoulder he said.
“Wants us to record something for R&D,” said Takashi. “The Fuck?”
“She’s offering us a tour of the facilities,” said Doug. “Maybe this will make more sense in that context.”
Tak squinted to read. “In Secaucus? Ugh! How are we s’posed to get there? Motorboat?”
“I guess we’re driving,” said Doug.

2.4.0 Attractor

Swamp grass is about the only flora left that could grow in wild abundance in New Jersey. Most of the Garden State had been routinely deforested to make room for highways and turnpikes blurred over by the zipping of Automobiles® at triple-digit mph's. Even the Pine Barrens had gone more barren than pine in the decades since President Christie ascended from state to federal executive office, and superstorm after superstorm tore up the shore line, coating everywhere from Asbury Park to Mahwah in countless grains of sand, summer after summer.

But somehow, the swamp grass, species indeterminate, more brown than green, rose from the muddy crust of the meadowlands. Five, six feet tall, making it difficult for any of the passengers in Doug's sedan to see the bamboo Melodica tower until they were in its parking lot.

Two-thirds of the car's occupants drove down to the Meadowlands in silence. Doug, as per usual, gripped the steering wheel with white knuckles and perspiring palms. Those Automobiles® drove way too fast, though they were accurate drivers, deftly maneuverable and possessed way more faculties for accident avoidance—radar and visual proximity sensors abound—than the able-bodied human driver of last century. Doug knew that. Though he still felt his heart palpitate in anxiety, his body's various sphincter clenching, his dermis growing wet watching the other vehicles zoom and swerve around him. Highway driving like this provoked a small-scale existential fear that made recourse with Takashi difficult if not frustrating. Tak, who spent the whole 45 min. driving picking the dirt out from underneath his fingernails and berating Doug for his shitty cell-phone, loggy paperback books and antiquated car. Calling them bad attempts at hipsterdom, retro-faddism and an inability to reckon with whatever the hell the "post-post-modern technological landscape" was. Doug preferred to just take it. Be the better man and get his aggressor from point A to B safely.

It was Isa, if anyone, who came to Lamarck-Ganoush's defense. Even going so far as to tell Takashi to "shut up" while on the cloverleaf on to I-95. Not that she was talkative by any measure for the duration of the drive.

After a quick but deliberate angle-parking job, the three exited the sedan. Doug locked it, turning the key into a metal lock on the driver's door, which elicited a scoff from Takashi.

Although it was the tallest skyscraper in the Meadowland's area—and the largest building period around save the gargantuan Bank of America NY Giants Memorial Stadium and Recreation Complex—the Melodica tower didn't strike any of New Ape Idea as "tall" per se. It was maybe only 45 stories from Doug eyeballing it. Though it had the appearance of a giant tree rather than a man-made structure. It was the first ecobuilding any of them had seen firsthand, the Takashi quickly remarked they were "no-big-deal Green Capitalist scams" that were "like, everywhere" in the NYC area. The front door was locked. It had a clear scanner that turned red and beeped when Takashi pressed the pad of his thumb to it. Doug removed his Nokia from his pocket—he kept Sets on speed dial.

"She'll buzz us in," said Doug, flipping the black thing shut and pocketing it. "Her lab is on the twentieth floor."

And with that, the glass doors parted and the three entered the building.

Takashi's teeth chattered as they walked through the lobby. The air smelled minty and over-processed. Isa pinched her collar, and her shirt grew long sleeves that obscured

her tattoos. Doug, the type to wear shorts and tennis shoes independent of air temperature, humidity or precipitation, was unfazed.

The five elevator doors were made of steel; the only visible metal on the entire floor. From the lobby extended two long hallways, each with ten or fifteen bamboo doors. Occasionally, a hebody or shebody in a darkish suit would slide one of the doors open and power-walk to another, eyes downcast and face of a solemn or bored valence. They made little social vocalizations to one another, only brief nods devoid of and F2F contact. Doug cleared his throat and summoned an up elevator, which dinged with its arrival almost instantaneously. For a company called “Melodica”, the atrium was whisper-quiet, almost clinically so.

“Shee-it, this set-up is, like, corporate to the tenth power,” said Takashi.

“...”

“...”

Takashi sniffed as the elevator beeped with each successive floor it ascended past. “No comment?”

“It’s rude to talk in an elevator,” said Doug.

“Yeah, but it’s just us in here, boyo.”

“Don’t call me boyo.”

“And conventions are only determined by the social gathering which contracts them,” said Takashi.

“...”

“...”

“I’m just saying,” he said, “I don’t quite get what this hebody wants with us.”

“Julia is female,” said Doug, punctuated by a gaseous stomach rumble.

“Not her, this hebody.” Takashi windmilled his arms about, gesturing across the elevator.

“Why is Melodica male?” Doug asked.

“Corporate personhood law dictates that all incorporated businesses and ventures are to be designated as either male or unisex,” said Isa.

“Yeah, a bunch of those fourth-wave feminists tried to start referring to all corporations in the female,” said Tak. “Which caught on, to the point where SCOTUS got all tied up trying to parse reproductive rights litigation with traditional corporate regulation. It was big on the news blogs for, like, five hours back in the twenties.”

“So why wouldn’t, uh, he want us?”

“Because we’re punk as fuck,” said Takashi, volume rising, “and this hebody is so white collar it’s blinding.”

“You can be white collar and punk.”

“You Doug,” said Tak, “Need to look up the definition of your terms. Logical fallacy, right Isa?”

But before Isa had the chance to respond, though she likely would not have, the doors parted, revealing a long hallway. Its walls were more window than opaque, and Doug felt as if the sunlight streaming through them was brighter, cleaner, more Hi-Def than the 100%-real waveforms outside. Takashi, adjacent to Doug, toed at the heels of his Chucks, slipping them off, as if by instinct.

“The floor is so cool,” he mumbled, standing still. “Like, in a temperature vector, rather than a trend one.”

Although Doug wanted to verify the claim, he was not willing to risk removing his footwear. He simmed a highly-probable scenario of an unpleasant olfactory stimulus articulating itself. He instead bent over at the waist and knees, and touched the floor with his fingertips.

“It’s artificially chilled,” Doug said. He noticed that he was not sweating.

Isa approached the door and stopped a meter away. Tak and Doug were to catch up. There was no discernible way to open the door. No knobs, handles. Doug waved his hand in front of the door, heat-sensitive machines being a specialty of his, but the beige rectangle remained closed. He unpocketed his flip-phone, ready to redial Julia Sets, when Takashi approached the door, and stood, reshoed, on a slight square recess in the floor.

The door slid open, revealing a wide room, evincing both clutteredness and spaciousness. The eastern wall was a giant window, overseeing a vista of unused train-tracks, over-used highways and a sea of the brown-green marshiness around them. The Bank of America NY Giants Memorial Stadium and Recreation Complex a cerulean ovoid in the distance. The corners and walls were guarded by small banzai shrubbery, arranged like the first image on a Bing search for “Feng Shui”. The air filtration system sounded as if it were whispering to itself. There were two desks in the room, bamboo as well. They were cluttered with fat stacks of paper, huge gaping display monitors and PC towers tall enough to look like they were from the mid-naughts. One desk, the closer one to the door, was unoccupied. Julia sat at the other, hunched over, some Gothic Mumblesludge on speaker. Her Eyes projected a high-lumen interactions window and shell filled with colorful lines of code. Sense-holes plugged, she was unaware to the arrival of Takashi, Doug and Isa.

“Julia?” said Doug, though she still remained unawares. They stepped forward anyway, Doug leading this time, into the lab. The door shut behind them, eliciting a turn from Sets.

“Ganooooooush!” she said. The various projections and sounds coming from her area disappeared. She pushed herself away from her desk, stood from her chair and waddle towards them.

“Good to see you Julia,” Doug said and they entered a meaty embrace. Unafraid of body odor, (though not entirely devoid of it), this was the first hug Doug had initiated in years so far as he remembers.

“I haven’t seen Python in years,” said Tak, sauntering over to them.

“And you still haven’t,” Sets said. “That was SQL, I’m blinding myself with data entry.” And a chuckle.

“Really?” said Takashi. He scratched at the back of his head. “It seemed to colorful for that.”

“Ah, good eye, Miyagi,” she said. “Honestly, it’s a lower-level language I’m in the process of developing. Yeah, I’m largely ripping it from SQL but I’ve still got some of the interface design parameters hammered into me from my bachelors’.”

“There’s an Edelstein too,” Takashi Miyagi-Edelstein corrected her.

“They only gave you one degree?” Doug asked.

“No, three,” said Julia. “That was a plural ‘s. Bachelors’.” She turned her gaze towards Isa. “I don’t believe we’ve been introduced. I’m Julia Sets.” She extended a hand that went unreceived.

“This is Isa. Isa Spines,” said Tak.

“Isa Spines,” Julia repeated slow and conscientious-like. “I’ve heard great things.”

“From who?” said Tak.

“From Isa,” she said. “The recordings Doug sent me. This shebody can wail.”

“You know Doug,” said Takashi. “I never gave you permission to do that.”

“Do you write your own lyrics?” Julia turned to Isa. She picked at one of the several earrings hanging from her lobe like a crushing fangirl.

“I didn’t sell them or put them on the web,” said Doug.

“How do we know they haven’t leaked?” Takashi, eyebrows squinted together.

“We would know. They’d be all over the net,” Doug replied. “Has Mallorely told you about his write-ups in *Staph Infection*? A record in hit count and individual visitors, by a factor of ten compared to number two.”

“They don’t require much thought,” said Isa, recoiling a bit.

“Besides,” said Doug to Takashi, “They were crap quality. Sounded like they were mixed in a tin can.”

“The recordings you sent me?” Julia turned from Isa, who seemed to be employing every trick available for F2F avoidance, from inspection of her fingernails to casting over-the-shoulder glances. Without Lazy Eyes though, the primal allure of another’s friendly gaze was hard to ignore. Even the most technology-hardened digital denizens could tell you that. “They were obviously not professional quality, but they weren’t bad for demos. I’ve seen worse from Ganoush.”

“Really?” said Doug. “I just recorded them on my phone’s ancient built-in mic.

“The quality was clear though. Almost too clear. I could understand the lyrics, hear the different instrumental lines. Everything.”

“Courtney Christ!” said Takashi, pinching the bridge of his nose. “What a disaster if they were leaked.”

“A disaster how?” said Doug. “Free publicity. Isn’t that what you want?”

“I want money too, DLG.”

“More people’ll come to Rule 30—“

“We’re selling shows out already.”

“What about free information? Your whole white hat pirate spiel.” Doug pawed at the back of his head, undoing and rewrapping his bun in frustration. A habit he had long since kicked from puberty. “Or are you only okay with taking what’s not yours.”

Tak flared his nostrils. “Not what I meant,” he said. “Information transmission error.” This would be perhaps the closest he’d come to an admission of defeat. “I’d just like to be in the know about these things.”

“I believe I’m the only one who heard them,” Julia said. Like Doug, she preferred clothing of the loose, baggy and earth-toned variety. Not the skin-type black denims and crusty band tees that could change at the push of a collar button the rest of the punks preferred. She tugged at a loose thread on her hoodie, likely a thrift store buy. “And Mr. Halisdol too. Any maybe whatever NSA agents had access to our email channel.”

“Who?” said Tak.

“My boss.” Julia scanned around the room. “Likely in the restroom. He’ll be here soon, likely asking for the evaluation of two to the x power.”

“Uh-huh.” Takashi nodded his mouth slightly agape, which, for whatever reason, made Doug smile a bit. Isa too seemed to be paying attention to the F2F, likely for lack of a better digital distraction. She, of course, did not smile.

“That’s his desk,” Julia gestured toward the bamboo block across the room. It was covered with an array of manila folders, all overfilled with papers.

And, as if on cue, the door slid open, revealing a lanky fedora’d man, unshaven and gaunt. He seemed to be suffering from an acute case of anterior pelvic tilt.

“Ah,” he said, scratching at his whiskers. “These are the musicians.”

“New Ape Idea,” said Julia. “Mr. Halisdol, this is Takashi Miyagi-Edelstein, Douglas Lamarck-Ganoush and—“

“Isa Spines,” Mr. Halisdol said, approaching them. He offered a hand towards Isa. “Heard great things.” His attempt at a smile only evinced how rare that facial expression was for him.

“How?” Tak asked. He folded his arms across his thin ectomorphic chest.

“Julia showed me,” Halisdol replied. “Or I overheard. Listening to music in order to increase work productivity is allowed here at Melodica.”

“Up the punx,” said Takashi.

“Right, well. I liked what I heard. Or, I should say, my Lazy Eyes did.”

“They have an audio input?” Isa asked, now drawn in.

Halisdol tugged at the sleeve of his blazer revealing a small skin color square, slightly darker than the peach complexion of his wrist. “Externalities feed,” he said. “Melodica R&D’s all have one. Can measure sound, humidity, temperature, air pressure, and wind current, Geiger counter. Really everything except the visual spectrum which your standard pair of eyes will cover.”

“Do you have one?” Doug asked Julia.

“Managers only,” said Mr. Halisdol. “Were affiliated with the Lazy Eye Corporation via the DUST conglomerate.”

“DUST?” said Isa.

“Never mind,” Halisdol volleyed. He took a step back. “Should you decide to do business with us here at Melodica, I can see to it that you can have Externalities feeds for all your Lazy Eyes.”

“Thank you,” said Doug. “Though, Takashi and I don’t wear them. Isa does though.”

“Did.”

“Right,” said Mr. Halisdol. “That makes sense. The artistic types usually forgo modern digital conveniences.”

Takashi looked over his shoulder through the large ceiling-high windows. Doug too fell for the primate allure of shared gaze. The sky seemed impossibly clear; devoid of the Newark-based smog that seemed to haze over all of New Jersey.

“So why are we here?” Takashi, head snapping forward.

“Do you work well with children Mr. Miyagi?” Mr. Halisdol asked.

“—Edelstein.”

“Of course,” he said. “The Melodica Company has recently launched a venture into, erm, child welfare interests. We’re looking to start a line of pedagogical products for children in need.”

Doug and Takashi glanced sideways at one another. “I think there’s some mistake. We’re a punk rock band,” said Takashi. “Like hardcore shit. Total thrash crustwave sludgerock.”

“I am no genre expert, though I suppose those adjectives could be applied to what I heard” Mr. Halisdol tugged at the knot of his necktie and forced out a laugh. “Though I did realize one thing: you three have talent.”

“Lots of bands have talent.” Tak, again.

“Not a lot of punk outfits,” said Julia.

“Major untruth Sets, yr not accustomed to stylistic—”

Doug raised a pacifying hand. “Can we let Mr. I’m sorry sir, what was your name.”

“Halisdol.”

“Mr. Halisdol finish his pitch?”

“Yr right, I’m being very rude,” said Takashi. “Please excuse my unprofessionalism.” He pinched at the collar of his t-shirt. At once, his black *Diarrhea Planet* tee loosened and became a white pinstriped dress-shirt with a blue bowtie. “Please continue,” he said.

“Right,” Mr. Halisdol said, nodding. “We’re currently scouting musicians with ability, which, from my understanding you have. As well as a degree of cultural sway.”

“Cultural sway?” Lamarck-Ganoush, like what?

“You have quite a presence on the blogosphere,” Mr. Halisdol replied. “The number of mentions about New Ape Idea on social networking and music journalism sites is significant. Additionally the rate at which new mentions occur are on par with several top 40 bands.”

“Were you aware of this?” Doug to Takashi.

“We don’t have any music up, at least, I don’t think so,” Tak said.

“Which makes it all the more impressive,” Mr. Halisdol, prosody exaggerated. “And yet your popularity increases. All do to circulating legend regarding your stellar live show, stage mannerisms, lyrics, et cetera.”

“And we’re cheaper than any top 40 act with a similar blogosphere delta,” Takashi said.

Mr. Halisdol shifted his fedora. Doug hadn’t realized before how small the man was. An inch or two shorter than Doug, at least a head below Takashi. Maybe several inches taller than Isa. “It is important, our marketing department tells me,” he said. “Recruiting musicians that have achieved a certain degree of popularity.”

“Even for lullabies?” said Takashi, like the hebody was *trying* to lose Melodica’s business.

“Young hip parents want their children to listen to young hip tunes. Not to mention the, well, structural simplicity of the punk genre makes for easily digestibly music. Young, developing perceptual circuits to be bootstrapped. Fragile aural canals and whatnot. I am not an expert in these matters.”

“I thought these,” Takashi cast a glance at Julia. She had remained silent since Mr. Halisdol’s entrance. “*Lullabies*, were for children in need.”

“They are,” said Mr. Halisdol.

“With hip culture-saavy parents?”

For a pregnant moment Mr. Halisdol looked as if he was chewing on the meat of his inner cheek. “Yes, well, this is what our marketing department tells me. I’m not one to question their praxis, as paradoxical as it may seem at times.” He shifted his weight from one foot to the other as he spoke. Back and forth and back and forth. “It’s all oriented in psychology really. Operant conditioning, behavioral economics. Not my specialty.”

Doug spoke first. “And your specialty, Mr. Halisdol, is?”

“Dynamical systems theory,” said Julia, finally speaking. “At least in this lab.”

Mr. Halisdol nodded. “Ms. Sets is correct. My focus has been on human applications. Specifically those regarding the ontogeny and development of human perceptual and cognitive schemata.”

Takashi’s spine straightened followed by a half-smile to Doug and Isa. “I see, complex systems,” he said. “Applied chaos theory.”

“Indeed,” said Mr. Halisdol. “What began as a popular sub-genre of physics in the 1980’s has since grown to an all-encompassing mathematical descriptive model for a huge matrix of studies. My work is primarily concerned with mapping it onto human neuromotor systems. I guess it does fall under the psychology/cognitive science umbrella. Though it is mostly just number crunching.”

Takashi toed the floor, pivoting the ball of his foot like a nervous flirt. “Makes sense. I’ve had similar thoughts myself,” he said. “With regards to treating the human individual as a dynamical system.”

“Oh it’s hardly a new practice,” replied Mr. Halisdol. He and Tak were F2Fing pretty intensely, Doug noted. “For all its early history, the study of psychology has basically been the uprooting of old, tired, useless theory and supplanting it with new fresh equally-incorrect paradigms. Freud at his analysisists distilled basic appetites to perversion and Mommy-issues. It all culminated in a style of therapy targeting wealthy narcissists who were willing to spend ample time on their backs lamenting their own unwieldy egos. From that came the Behaviorists. Operant conditioning and stimulus-response tests. And they all pretended that there was nothing going inside the head at all. They of course were overthrown by the cognitivists who pretended the mind was a meat-based Turing machine, and consciousness was all symbols and syntax. The Evolutionary Psychology craze of the tens and twenties was not—”

“—I thought you said you weren’t an expert,” said Lamark-Ganoush. Mr. Halisdol had been monologuing straight at Takashi the whole time, speaking at an accelerando clip.

Mr. Halisdol cleared his throat and tugged at his collar. “This is history. The backdrop to my research. Not to say that I’m a psychologist. I just research what I’m told to. Though we do employ some very intelligent psych consultants that dictate the direction of our R&D. I have little reason to doubt their collective intelligence.”

Takashi was quick to interject. “What’s the problem with evo psych? Are you one of those Christ guys?”

“Oh evolution is a fact,” said Mr. Halisdol, turning again towards Takashi. “Though what are the driving forces behind it? Darwinian natural selection? Gould’s punctuated equilibrium? And while the genome may change through a Darwinian scheme, cultural evolution is, well,” Mr. Halisdol glanced at Doug. “Lamarckian. Memes are either used or abandoned.”

“Not that I didn’t buy into the whole thing when it was faddish. I did the paleo diet back in the tens. If I was a younger man I may have joined the Neo-!Kung a few years ago. Though it can get too speculative. Trying to delineate the evolutionary history of all our humanity. I do numbers. Physics. It’s more, erm, grounded.”

“Absolutely,” said Takashi. Doug could feel something bilious gurgling in his intestines. “Makes absolute sense to me.”

“I don’t get it,” Doug said.

“My research?” said Mr. Halisdol. And then with a nod towards Julia he corrected himself. “Our research?”

“This is the strangest record deal I’ve ever heard of.”

“We live in the age of strangeness DLG,” said Takashi. And to think only moments ago he was the most vocally opposed to coming to the Meadowlands.

“I would like to see you laboratory,” said Isa, her gaze still downward cast.

“I’ve been doing a lot of the talking here, I understand that.” Mr. Halisdol attempted another smile. “Perhaps Ms. Sets would like to show you some of the work she’s being undertaking at her console.”

“It’s mostly raw data that I’m sorting through. Or rather I’m trying to avoid sorting by automating the whole process,” said Julia. “But I guess I could show you if you’re curious.”

“I’m down,” said Tak. “I could probably give some suggestions towards patching together—,”

“Won’t happen, Miyagi-Edelstein,” said Lamarck-Ganoush. He placed a hand on Sets’ shoulder. “Julia’s the real deal cyberpunk hacker extraordinaire. Anything you could think of she’s coded over twice.”

Julia made an aw-shucks face. “Well that’s not necessarily the case,” she said.

“Did you ever meet this girl back in school?” said Doug. “One Ruthie McRogers?”

“Doesn’t ring a bell.”

“You should meet her,” said Doug. “Or rather, she should meet you. I sim she’d appreciate your presence.”

“Let me see your code,” said Takashi over Doug. “If you don’t mind.”

“No problem,” Sets said. She turned and walked with Takashi and Doug towards her desk. Mr. Halisdol had his hands in his pants pocket and kept wetting his lips.

“I’d prefer to see the laboratory,” Isa said. She hadn’t moved with the rest of them. “If that is possible.”

“Yes, well,” said Mr. Halisdol. “I don’t even think Julia has had a tour yet. We tend to keep the exactitudes of our research relatively hush-hush. Corporate espionage being a consistent threat and whatnot.”

“...”

Head tilted back and mouth agape, Takashi stared at the litany of code projected in front of him. “I wouldn’t mind seeing the lab,” he said. “See what you’ve got under the hood.”

“If it’s not too much to ask,” Lamarck-Ganoush added. “Perhaps you could give us a little more detail on this whole lullaby prospect.”

“Yes, well,” Mr. Halisdol pressed his palms together. “We could perhaps have something arranged with the Dept. of Ontogeny, if it will inspire a degree of confidence in any future music contracting.”

Mr. Halisdol’s laboratory was in the subbasement of the Melodica tower. The downward acceleration made Doug feel as if his bladder was swelling. A sensation unabated by the fact that the other four of the elevator’s passengers—no others boarded/departed the elevator during the descent—all remained completely silent for the duration of the ride. Even Tak did not speak. He kept his head bowed and lips sealed, as per timeless elevator-riding etiquette. Quietude from Isa was expected, Julia too perhaps. Mr. Halisdol didn’t speak per se, though Doug noted that he seemed to mumble to himself on the way down.

The Melodica basement was Newark to the tower’s Pine Barrens. Above ground, the building seemed almost empty, the rooms well lit and elegantly furnished, the basement was overcrowded and concrete. White lab-coats bustled back and forth, swinging fingers around in front of them as they manipulated items on the Lazy Eye displays. The whirring of a giant industrial fan covered the rest of the ambient noise; Mr. Halisdol sounded slightly strained when he announced “Here we are” to the other four.

“You study children down here?” Takashi yelled.

“Not quite,” replied Mr. Halisdol. “This is our systems application division. Very little of our research corresponds to actually working with human subjects here. Our goal is to outline the architecture of the data we find. Attractors, repellents, phase-space delineation et cetera.”

Doug leaned in towards Julia and attempted to make an aside. “Does this make any sense to you?” he asked, though the laboratory’s din masked his vocalizing. Mr. Halisdol walked backwards as he talked, jerking his head back on counts two and four like a nervous driver trying to manually merge into a lane of Automobiles®.

“So yr intending to construct the human subject as an autonomous system,” said Takashi, his voice lilted with content in his ability to spit out jargon. “Computationally complex in that it is not easily discretizable into smaller sub-systems.”

“Ah-ha, well you are talking the capital-B capital-I Big Ideas.” Mr. Halisdol grabbed a steel door lever and managed to open it after applying most of his mass against it. He ushered them into an over-white, over-bright room, the only sound the amniotic hush of old fluorescent lighting. A water cooler gurgled on the orthogonal wall.

“Break-room,” he said, though there were neither chairs, nor tables in it. He pulled a thumbnail sized square from his jacket pocket from which he removed and inserted two clear lenses. He blinked them on.

“The application of a language structure to rearticulate what is the case,” said Isa.

“...”

“...”

“...”

“...”

“...”

“A language has a series of terms, and a grammar dictating how they relate,” she said. This is an attempt to apply a certain language system to data—facts—that have already been determined.”

“Mathematically speaking—” Takashi started.

“—Yes, *speaking*. Dynamic systems, complex systems, whatever your words are Takashi, are means of communicating. Mathematics is still a language.”

Takashi wet his lips. “I getcha Isa,” he said. “The theory is a language game.”

“Pardon?” said Halisdol.

“What you do hear,” said Tak. “Yr attempting to *apply* rather than *create*, right? Y’know therefore the emphasis on data collection, sorting, and combination until you find some sexy p values. Cause that’s what happens when you forget those,” Takashi carved quotation marks with his index and middle fingers, “Big Ideas.”

“Our research is cutting-edge,” Mr. Halisdol squinted at Tak, likely running a quick face ID. “Mr. Miyagi-Edelstein.” His voice sunk into a baritone as he spoke. “As vice-president of Research and Development, I can assure you we at the Meadowlands branch of Melodica, sub-division of DUST incorporated and Loder conglomerates, we are *seekers of truth*.”

He pressed his palm to jaw, and inhaled through his fingers. “Excuse me. By ‘Big Idea’, Takashi, I mean your emphasis on the whole human subject. But when? An adult human? An adolescent? A geriatric. Yes, perhaps we only look at part of the picture, if you will. Though what we are concerned with supersedes all other questions. We are concerned with ontogeny. Development and growth over time. An autonomous system does not exist at one single moment, it is a collection of parameters that resist entropy minute by minute, day by day.” He pulled a white kerchief from a pocket and dabbed at his neck. “Apologies, as you can see, I am quite impassioned by my work.”

“That’s admirable, I suppose,” said Doug. He glanced at Julia, she seemed entirely unfazed by Mr. Halisdol.

“Allow me,” he said, fanning himself with his fedora. Mr. Halisdol blinked on a projection of an empty two-dimensional coordinate plane against the wall. “Essentially what we are doing in the Dept. of Ontogeny is attempting map out possible attractor states within infant development.”

Takashi sported a simian grin. Apparently, this all made sense to him. As obvious as basic geometry or differential equations. At least, that was the appearance he gave off.

“Development in all organisms, infancy through senescence, is not monotonic. A baby does not grow taller and fatter its entire life, dying as a giant. Rather there are certain states that the system approaches. These are known as “basins of attraction”. Imagine a ball rolling down a hill and into a canyon. If the canyon is deep enough, no matter the ball’s momentum, it will be unable to roll out of the canyon and eventually settle at its lowest point.”

“So,” said Doug. “You’re trying to figure our, like, developmental ruts children run into as they grow?”

Mr. Halisdol did not break is gaze at the wall, lest he skew the projection. “Not quite,” he said. “Allow me to put it this way. Children are born across the globe into innumerable social and familial contexts. Languages, cultural child-rearing patterns and family structures vary enormously, yet largely the same kind of human is produced: one that can walk bipedally, manage at least one language fluently and understand the social conventions of its habitat. Computationally, that is like having a function that, despite having way different parameters produces a relatively constant result after iterating several times.

“This may not sound so impressive,” Mr. Halisdol continued, “Unless one takes into account the vast number of degrees of freedom within a human system. Trillions of potential neural connections, multiplied by the hundreds of muscular motor system in the body; there are nearly infinite combinations between the two, ways the brain and body may interact. For a child to take its first steps, it must learn to prune away all the possible neuromotor circuits that prevent it from moving its legs properly. This is a removal of degrees of freedom within a system in order to assure a consistent performance. A proper step, we can say, is a behavioral attractor basin.”

“So what’s the graph for?” asked Doug. The blank projection still remained in front of them all. Mr. Halisdol spoke facing it, his retinas glowing.

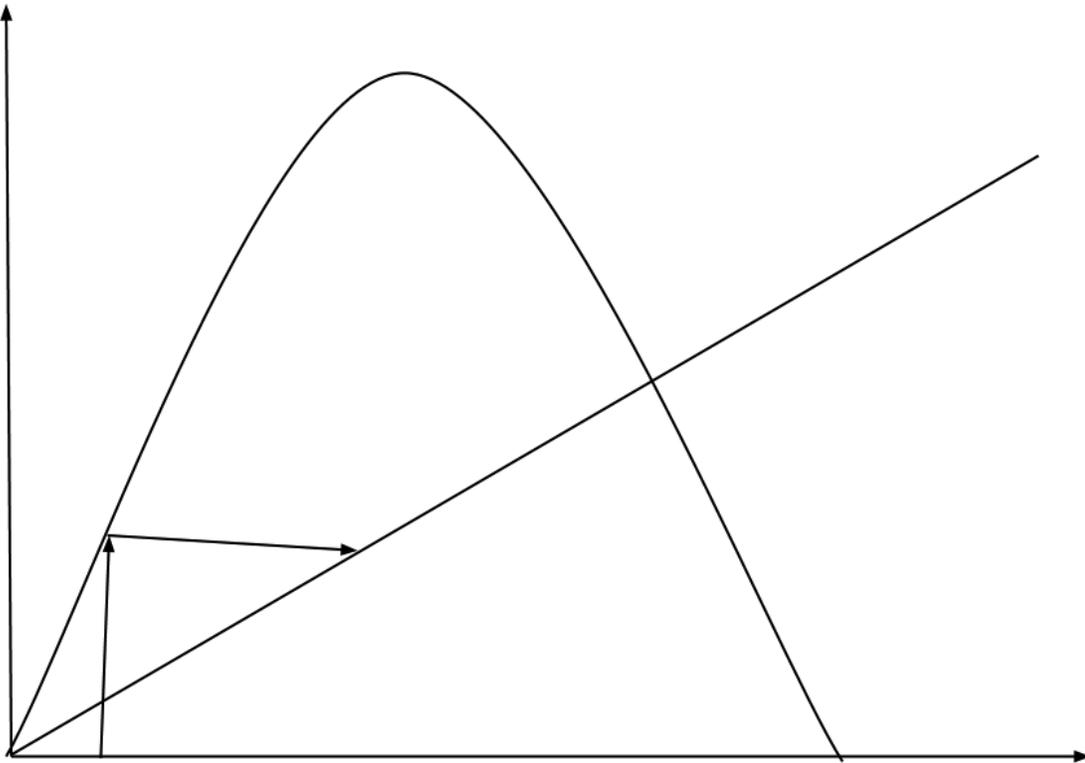
“I surmised a, erm, graphical representation of this theory may prove useful for the laymen among us.”

“We don’t need it,” said Takashi.

“I would prefer a picture of what you say,” said Isa.

“Of course,” said Mr. Halisdol. “Suppose we have two simple equations mapped on the plane. Say, a simple quadratic such as $y = -x^2 + 5x$ and a simple line $y = x$. Now let us put in a third function that is governed by a couple rules. Say, it will approach the parabola in a vertical fashion until they touch. Then, it will approach the diagonal horizontally until they touch. After the first epoch it will look like this.”

Mr. Halisdol squinted and a thin line began ascending towards the curve. As predicted, once it grazed the curve it veered right until it hit the straight line.

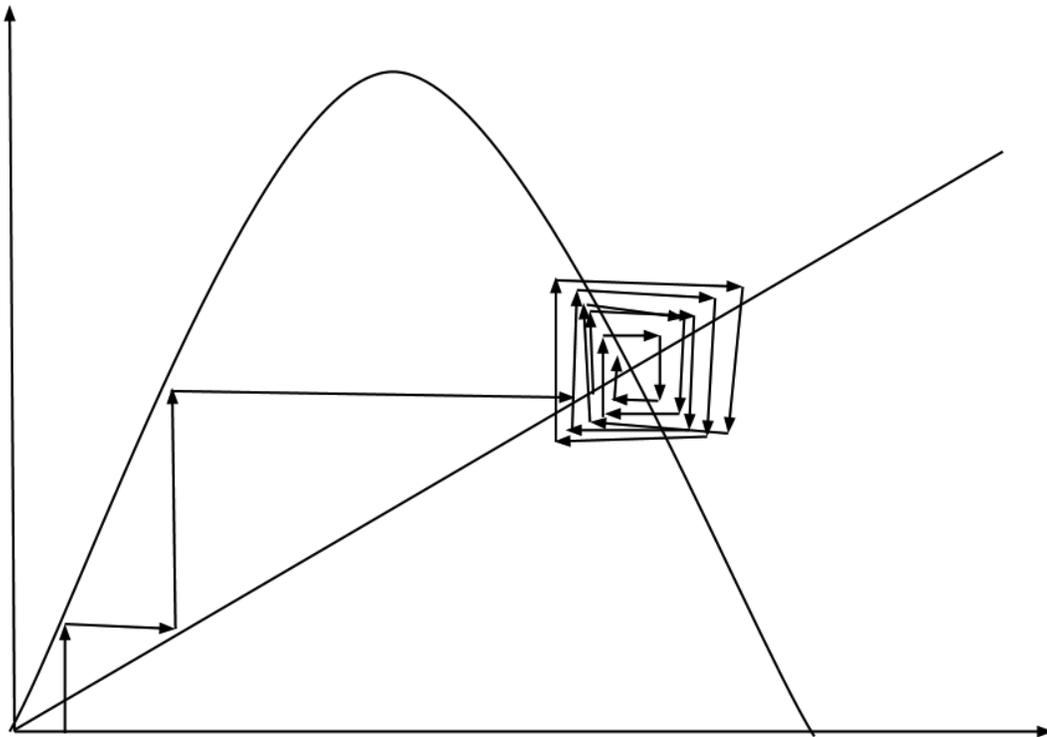


“Now, human ontogeny is essentially a giant feedback process. The end result of one iteration becomes the starting parameters for the next iteration. Much like

childbirth—the end of development in uteri— becomes the starting conditions for infancy.

“If we have our function reiterate itself over and over, soon it will become enclosed within a specific area of the coordinate plane.”

Sure enough, as Mr. Halisdol spoke, the function kept repeating itself: moving towards the parabola than the diagonal in turn. Eventually it became enclosed within a square in the upper-right corner of the screen. Its movements were too small and quick to be perceptible.



“This is what is called a ‘point attractor’,” said Mr. Halisdol.

“Yeah, we know,” Tak interrupted. “The function approaches a single point and more or less stays there. Elementary stuff.”

Mr. Halisdol blinked off the display. The meat of his eyes returned to an organic non-glowing white with black pupil. “While I am impressed with your knowledge of dynamic systems theory, I was under the impression your, well, colleagues, were not of the same erudition.”

“I fail to see how your picture corresponds with the world,” said Isa Spines, ever the tough sell. If solipsism has any perks, a healthy sense of skepticism must be one of its biggest.

Mr. Halisdol chuckled humorlessly. “Yes, well, that was an oversimplification to be sure. My point being, we try to look for milestones in human development as attractor states in an ongoing system. And, even as simple algebra can show you, attractor states are begotten by the rules and parameters of the phase space in which it is set coupled with feedback between its past activity and the present.”

“So if it’s all about rules and parameters,” said Doug as he circled a finger around his bun, “Why not focus on that stuff, rather than these points of attraction on whatever.”

I'm not an expert, but couldn't you learn a lot about a child by, like, examining its genome and various organ tissues and stuff? Wouldn't those provide the 'rules' you're after?"

"Complex systems are not easily broken down, DLG," said Tak. He stared at the now-blank wall, as if waiting for another projection to light across it. "If you change the parameters within a phase-space, even slightly, results can become unpredictable in a huge way." Takashi paused to pick something green from between two teeth. "Imagine if we replaced the diagonal with a sinusoid, or a logarithmic ascent. The same point attractor might not even exist."

"Mr. Miyagi-Edelstein is correct," said Mr. Halisdol. "Though I wouldn't have put it so aggressively."

"Imagine a waterfall. I could change the mass and direction of every drop of water within it, and yet the waterfall will still appear the same. The fact is, when dealing with these systems, we know it is somehow dependent upon its initial conditions, but we can't explain exactly what's going to happen explicitly in terms of those factors. It throws a wrench into the whole idea of causality really."

Perhaps it was his Lazy Eyes that propelled Mr. Halisdol to ramble on. Loquaciousness was one of the main symptoms of the kind of digital hyper-immersion Lazy Eyes provided, which was one of the reasons Doug stayed away from them. The world's got enough Takashis, flapping their tongues about subjects to prolix and esoteric to be of interest to the folk. Lamarck-Ganoush found it all obnoxious. As if the user's private show of images, hypertexts and videos syphoned the essential cognitive faculties necessary for successful F2Fing. And if the user wasn't an over-talker, it became like Isa. Paralyzed by anxiety and skepticism. Pretty much impenetrable. Talkative or quiet, a shower or a sayer, they were all solipsists the lot of 'em.

"Bioinformatics was thought to hold the key to unlocking the human several decades ago. To think that decoding a single *homo sapiens* genome was a process that once took months, let alone hours. Microtechnology too was thought by some to solve all problems, become the proverbial holy grail of the sciences. That prospect was stillborn, in my opinion." Mr. Halisdol turned towards Isa, looking her up and down. She seemed oblivious, or at least parsing some internal recursion of contrapositives and obscure conditions deep inside her. "Believe me," he said. "We tried."

"I'm a bit confused," Doug again. "You want us to record an album of lullabies to assist in your child development research?"

"I'm perplexed too," said Julia, her voice edging on an anxious valence. "I had no idea this facility even existed, let alone the research we were doing."

"Well, research confidentiality is a paramount concern in all east-coast branches of Melodica," said Mr. Halisdol. "Besides, you never asked. And to you Mr.," he squinted, "Lamarck-Ganoush, the lullabies are intended to be a marketable educational device. We intend on incorporating a wide range of musical genres; however, New Ape Idea is the first band we've managed to ask."

"And we'll get paid?" said Takashi.

"Of course. You'll receive a contract with the details, should you agree to record. We're offering 5 billion up front as well as a 3% royalty on all sales."

Doug opened his mouth, about to ask for a brief consultation with his bandmates. Of course, Takashi had already grasped Mr. Halisdol's hand before any words were emitted.

2.5.0 Mosh II

“I’ve heard of stranger things,” said **Futurabold**. “I mean, I wouldn’t have guessed your first album would be children’s music but—”

“Lullabies,” Takashi interjected. He lay supine on an uncovered mattress **Futurabold** had installed in her office at his insistence. After a show two weeks prior, a gaggle of crusters found Tak amidst his post-set nap. According to Takashi, the interaction-effect of their non-stop adulations and foul body odor made the prospect of a twenty-minute schluff impossible. He thus asked for a transfer to **Futurabold**’s office, which tended to get much less intrusion after shows. Likely because Dee tended to stand outside the entrance and serve as custodian.

“Even moreso,” **Futurabold** said. “I can’t exactly picture a baby falling asleep to your music, or really do anything except cry. But I guess there’s a market for it. They’re probably trying to pull in some young gen-Z parenting demographic or something.”

“That’s what I thought,” said Doug. “However it’s entirely, like, a charity project. Apparently this music—our music—is supposed to be distributed amongst orphanages and detention facilities or whatnot. You know, wards of the state.”

Futurabold nodded as she twirled at her mohawk’s anterior end. “Bizarre. There doesn’t sound like much of a profit margin with that demographic.”

“My thoughts exactly,” said Doug, his Feldenkries book splayed open across his lap. “I wanted to investigate further, of course Takashi signed a contract almost immediately.”

“It’s good money!” said Takashi as he sat up, his hair matted against his skull. “With what Melodica pays us we could buy out Rule 30. And that’s not even including the royalties.”

Doug turned to **Futurabold** and put forth a supplicating palm. “I can assure you, we have no intent of doing such.”

“We could’ve bought our whole set-up,” Tak continued. “No need for me to have jacked it.”

“You should keep that in mind next time,” said Doug, looking over his shoulder at Tak.

“So babies without parents?” said **Futurabold**.

Doug about-faced. “Apparently,” he said.

Futurabold looked up towards the ceiling and nodded. “Actually, on second thought, that does make sense,” she said. “To a degree.”

Combing his fingers through his hair, Takashi unmussed his bed head. His blonde spikes bristled out anemone-like. “Now this I gotta hear.”

“Lullabies are an essential aspect of child-caretaker relations. From what I understand, your album is to be marketed towards orphans, or children from broken homes. I’m sure these researchers at—”

“Melodica,” Doug said.

“Melodica are looking to try and compensate for that.”

“Bleeding-heart bullshit,” said Takashi.

“You’re the vegan here, Tak,” said Doug.

“Yeah but, like, so a few toddlers don’t get to hear a nursery rhyme before they go to bed. Is that really the biggest problem society is facing today? I guess it’s cool they’re trying to automate parenting duties, but still—”

“You’re thinking of renegeing on the contract?” **Futurabold**, expanding and swiping on her desktop.

“As I said, the money’s good.” Takashi fell back onto the mattress: an old spring-style likely older than he was. “Beyond that, I give a very minor-league shit.”

“Huh,” said **Futurabold**, shifting her weight forward in her chair. “You know lullabies are culturally ubiquitous?”

“Is that so?” said Doug. He had returned to his loggy paperback. “You learn this in your Evo. Ludology degree?”

“Nope,” said **Futurabold**. “Internet.”

“Are they, like, counter culturally ubiquitous too?” said Takashi rolling on to his stomach, his back to the other two. “Like will ravegoth parents sing their brood Kamikaze Khrist riffs at bedtime?”

“It is highly unlikely that whoever would call themselves ‘ravegoths’ would successfully reproduce,” said Doug.

“And the word ‘lullaby’ is misleading,” added **Futurabold**. “Parents, especially mothers, will sing to their infants at all times—not just when trying to put the kid to sleep.” She swiped her hand in front of her, scrolling through some wiki invisible to Doug and Takashi. “Apparently caretaker-child song can occur while feeding, playing, whatever.”

“So we’re not trying’ta put kids to sleep,” said Tak. “Maybe our tracks will be for feeding.”

“Or recess,” said Doug.

“Infants don’t have recess, boyo.”

“It has a huge amount of developmental benefits too,” said **Futurabold** squinting at the screen. “Lullabies, I mean.”

“I guess it depends on the songs they want us to sing,” Takashi, face half-buried in a thin pillow. “Like, if we’re doing *Hush Little Baby* the applications will be self-evident.”

“Melodica wants us to do originals,” said Doug.

“Studies show toddlers tend to exhibit peak limb movement when listening to their mother’s song. Which is linked to developing basic motor skills and whatever ‘body-mapping’ is supposed to be.”

Tak turned 180 degrees onto his back. His forearm covered his eyes as he spoke. “Wait, seriously? They’re asking for a lawsuit. I’m pretty sure our lyrics are in violation of, like, three thousand federal speech codes.”

The paperback made a thin thumping sound as Doug closed it. “Courtney Christ, did you even read the contract?”

“I assumed you would, DLG.”

Lamarck-Ganoush felt his body ossify with frustration. “I did, but what if I didn’t? What if I skipped over something?”

“And—get this— some researchers assert that melodies in caretaker-child song serve to teach the child basic language skills—” “

“You’re too thorough for that. I skimmed that you skimmed that I wouldn’t read it, and therefore would go over the whole spiel in painstaking detail. And it seems I skimmed correctly.”

“—With the melodies sounding like over-exaggerated speech. The child learns to recognize a human voice as well as the set of sounds within their language.”

“Why do you feel that’s an okay thing to do, Tak?”

“It’s called theory of mind, Ganoush. The reading of one’s mental states by projecting them on to your own. A basic component of human psychology.”

“Which, Takashi, is also a side-effect of singing to infants,” said **Futurabold**, enveloped by her wiki wonderland. “Bootstrapping of theory of mind. But that seems more speculative.”

“Well, shit,” said Takashi. “I guess we’ll have to clean up our lyrics.”

“Like which ones?” said Lamarck-Ganoush.

Tak propped himself up on his elbows and cocked his head at Doug. “Do you not know the words to our own song?” he asked.

“I don’t pay much attention. I’m mostly trying to keep time,” said Doug. “What are the really bad ones?”

“Y’know,” said Tak. “I’m not sure myself. I think Isa’s been changing some of them since she started singing.”

“We should ask her,” said Doug.

“Before Google bought out the public higher ed,” said **Futurabold**, “There were entire academic journals dedicated to ‘Communicative Musicality’. That’s what the field is called anyway.”

“Well, where is Isa?” Tak again.

“Likely the bathroom,” said **Futurabold**, lifting her gaze from the monitor, snapping back into loggy reality.

“Why?” said Takashi. “We just played a set. I thought her rule was pre-set: bathroom, post-set: office.”

“She’s not an automaton, Tak,” said Lamarck-Ganoush.

“Might as well be,” said Takashi. One eye closed, he played with his eyelashes as he spoke. Pinching them with his index and middle fingers as if they were wired to some autoerotic neural pleasure center. “Shebody’s like a walking for...while loop. Sometimes.”

“Shut up Takashi,” said both **Futurabold** and Lamarck-Ganoush in concert.

“And you do have a set coming up,” said **Futurabold**. “FYI.”

“No shit?” said Takashi.

“Double feature Fridays,” said **Futurabold**. “On the condition that you get 15% of ticket revenues. Remember?”

But Takashi, abdominals flexing as he sat up, only could look at her like, what?

“You’re up in another two point five hrs.”

“You never told us!” said Takashi.

“She absolutely did, Tak,” Doug replied. “This is the second week in a row we’re doing this.”

“Yr shitting me. I don’t remember last week.”

A sigh from Doug. “You were crossed on a case of low-carb corn beer and non-synth,” he said.

Takashi smiled. “Now I remember. I hope I didn’t sound too fucked up. Or if I did, I hope I was fucked up in the right vector. Y’know?”

“You’re the bassist,” said **Futurabold**. “Nobody gives a shit what you sound like.”

Takashi emitted a curse that seemed to combine both Yiddish and Japanese phonemes. “Well I thought today was Wednesday,” he said.

But **Futurabold** and Doug had already returned to their respective texts. Doug, back erect, digesting his hip paperback; **Futurabold**, chewing on the meat of her lower lips as she pawed through cyberspace.

The mattress groaned as Tak rose to his feat and leapt off it. “I should probably get her,” he said, and shuffled out. Doug could hear a muffled interchange with Dee after the door slammed.

And the two continued to read, involved in their arrangements of letters. It only took a few minutes, three or five, no more than ten, the overhead ceiling fan providing a uterine whoosh of white noise, for them to grow deeply unaware of one another’s presences.

* * *

1. I prefer to keep my eyes closed as I play guitar and sing.
 - 1.1. Although I am unsure as to whether “sing” is the proper label for what I do.
 - 1.1.1. “Yell?”, “Intone?”, “Vocalize?”
 - 1.2. Of course, aspects of set-up, which necessarily precede playing guitar, require that I keep my eyes open.
 - 1.2.1. These include tuning, plugging in my guitar to my pedalboard and my pedal board to the amplifier, sound checking the vocal mic, calibrating my distortion, flanger, auto-wah, chorus, fuzz, overdrive, reverb, digital delay, compressor and volume pedals to their proper settings.
 - 1.2.2. In this case, I will turn my back to the others filling the room.
 - 1.2.2.1. In both cases, I do this because I do not prefer to look at them.
 - 1.2.2.1.1. “Them” of course referring to the others.
 - 1.2.2.2. For past performances, I would simply cloud my vision with applets from my Lazy Eyes. This having the effect of obscuring the others’ faces.
 - 1.3. Occasionally, what I am to perform requires that I open my eyes.
 - 1.3.1. It is not an element of what I am to perform that requires that I open my eyes. It is instead an aspect of my performing that necessitates such action.
 - 1.3.1.1. As I am unable to coordinate the proper movements of my fingers without visual input.
 - 1.3.2. Of course, opening my eyes for this purpose fulfills a similar role as my closing them in the first place.
 - 1.3.2.1. Ibid 1.2.2.1
2. Four drum stick clicks are usually the cue to begin out set.
 - 2.1. By this I mean that, as a rule, four clicks introduce the ensuing music.
 - 2.1.1. Although, I can imagine three sets beginning our set.

- 2.1.2. By that manner, five or six clicks as well.
 - 2.1.2.1. In this way, the music to be played is not dependent on the number of drumstick clicks preceding it.
 - 2.1.2.2. However, I cannot recall if I have ever played after hearing three or five clicks.
 - 2.1.2.2.1. What is it that stops me from playing after click three and waiting until click four?
 - 2.1.3. The beginning of our set is thus not logically dependent on the preceding four clicks. And yet it still relies on them.
 - 2.1.3.1. What could this rule be grounded in if not in logic?
 - 2.1.3.1.1. All systems of communication require a grammar.
 - 2.1.3.1.1.1. By “grammar” I designate the system of rules by which communication gains meaning.
 - 2.1.3.2. Although most songs which I play are in a 4/4 time signature.
 - 2.1.3.2.1. I could infer that these four clicks are a convenience, symbolizing the four beats per measure.
 - 2.1.3.2.2. However, Doug begins each song with four clicks, regardless of time signature.
 - 2.1.3.2.2.1. This practice, though, was adopted at the insistence of Takashi.
 - 2.1.3.2.2.1.1. Takashi claimed starting songs as such was “tradition”.
 - 2.1.3.2.2.1.1.1. By “tradition” I assume he refers to a practice undertaken by bands of a similar ilk as ours.
 - 2.1.3.2.2.1.1.2. In this sense, one can see the truth in calling Takashi a “Poseur”.
 - 2.1.3.2.2.1.1.2.1. A “Poseur” is one who attempts to match his outer expression to match a false inner experience.
 - 2.1.3.3. How I am able to synchronize the tempo of my playing with that of Doug and Takashi is curious.
 - 2.1.3.3.1. Especially in cases when four clicks precedes a song with an alternative number of beats per measure.
 - 2.1.3.3.2. What is the grammar behind such synchronies?
- 2.2. The onset of my playing correlates with a cheering from the others pooling around the stage.
 - 2.2.1. As with the drum clicks, this cheering precedes my shutting my eyes even tighter.
 - 2.2.1.1. Ibid 2
 - 2.2.1.2. Although this ritual was not in place when I still had my Lazy Eyes.
 - 2.2.1.2.1. Ibid 1.2.2.2
 - 2.2.1.2.2. The last time I was in contact with my Lazy Eyes was in the cot room of Rule 30 approx. 56 days ago.

- 2.2.1.2.2.1. I thus believed they were lost within the sheets of Ruthie’s bed.
 - 2.2.1.2.2.1.1. After much searching, the objects could not be found.
 - 2.2.1.2.2.1.2. Takashi even insisted on moving the mattress into Ruthie’s office to abet my search. The Lazy Eyes are still in an unknown location.
 - 2.2.1.2.2.1.2.1. Unless of course Takashi found them but has hidden his acquisition from me.
 - 2.2.1.2.2.1.2.1.1. Though the game of paranoia: the attempting to deduce from a false outer expression a true inner state is difficult for me to play.
 - 2.2.1.2.2.1.2.1.2. I do not like to think about this possibility.
3. Admittedly, I do not know the names of any of our songs.
 - 3.1. By which I mean, I am unable to identify any of the songs by their titles. I instead recognize them based on the quality of their sound, their melodies and rhythms as well as the proper digital maneuverings I must undertake to play them properly.
 - 3.1.1. Perhaps one could differentiate most songs by their lyrics.
 - 3.1.1.1. This process, however, is not possible for any songs that I “sing”.
 - 3.1.1.1.1. Ibid 1.1
 - 3.1.1.1.2. I justify this argument because all songs I sing have the same lyrics.
 - 3.1.1.1.2.1. “Banana, Banana, Banana, Banana, Banana”
 - 3.1.1.1.3. Any lyrical difference between one song I sing to any other is de facto arbitrary.
 - 3.2. Although several others have claimed to have preferred songs within our repertoire.
 - 3.2.1. It would thus follow logically that preferred songs are selected based upon metrics separate from lyrics.
 - 3.2.1.1. Although, Takashi, Doug and Ruthie have all drawn my attention to texts praising my innovative lyrics.
 - 3.2.1.1.1. Three distinct propositions may follow this:
 - 3.2.1.1.1.1. That there is a discrepancy between the lyrics I think I “sing” and the lyrics I actually sing.
 - 3.2.1.1.1.1.1. Then what is the grammar between what is thought and what is said? If I attempt to vocalize the word “banana”, and yet the word “orange” comes out unbeknownst to me, what have I really said?
 - 3.2.1.1.1.2. That there is a discrepancy between the lyrics I sing and the lyrics the others perceive.

3.2.1.1.1.2.1. This mishearing could be traced out by examining the logical structures underlying the following: the montage of neural firings representing what I am to sing, the sound waves emitted from my throat, the stimulation of hair cells within the eardrums of the others and their corresponding neural representations. One could thus pinpoint the exact failure in this correspondence.

3.2.1.1.1.3. That the writers of said texts are “poseurs” who attempt to affect an outer appearance of understanding lyrics that are unknown to their inner experiences.

3.2.1.1.1.3.1. While perhaps possible, I do not wish to entertain such, as it requires meditating on the outer and inner experiences of others.

3.3. The vocal melodies of different songs I sing are negligible too.

3.3.1. Just as the corresponding lyrics are undifferentiable.

3.3.2. By this I mean it is almost impossibly difficult to differentiate songs based on vocal melodies.

3.3.2.1. That is not to say that every song has the exact same vocal melody. Rather, the vocal melodies of varying songs are indistinguishable.

3.3.2.1.1. This property of all my melodies is likely due to distortion and modulation from Takashi’s pedal.

3.3.2.1.1.1. He refers to this pedal as his “SHANNON”

3.3.2.1.1.2. By measuring the heat and kinetic energy generated by the others, the SHANNON alters the signal travelling between the microphone and the amplifier.

3.3.2.1.1.2.1. Thus, even when performing the same song twice, the vocal melodies will be different.

3.3.2.1.2. Though the vocal melodies are not indistinguishable in the same sense as my lyrics. The lyrics are indistinguishable because they are all alike. The melodies, however, are all unlike.

3.3.2.1.2.1. And yet how peculiar the word “indistinguishable” may be rightly applied to both opposite cases.

3.3.2.1.2.1.1. What aspect of the English grammar allows for such novel word use?

3.3.2.1.2.1.1.1. Unless it is not a quality of grammar, but a quality of word use not explicitly rule-based.

3.3.2.1.2.1.1.1.1. That is to say, if all speakers of a language should decide of the proper use of a word, independent of its grammatical properties, there would be no means by which to judge the word use as incorrect.

3.3.2.1.2.1.1.1.2. Though are aspects of a word or proposition, such as its truth-value, determined in such a manner? This is the difference between truth arising as a correspondence between a proposition and the world, and truth as a held belief one ought to believe as determined by an in-group. All of the world lies in this difference.

3.3.2.1.3. Though if the vocal melody of a song is influenced in part by the movement of the others, to what extent am I even singing?

3.3.2.1.3.1. This is another reason why I prefer not to use the word “sing”.

3.3.2.1.3.2. Though if I am not the performer, why do I feel such stage anxiety?

3.3.2.1.3.2.1. Logic would dictate that such anxiety is meaningless.

3.3.2.1.3.2.1.1. Although who or what determines what are the criterion for a proposition being logical?

3.3.2.1.3.2.1.1.1. Takashi and Doug are performers, as are the others as am I. They all perform with their eyes open. If logic dictates what I ought to do, I ought to open my eyes as well.

4. I have vastly underestimated the number of others in the audience.

4.1. Before, I had assumed there would be no more than one or two dozen.

4.2. Rule 30 is packed. There are likely several hundred bodies filling the space.

4.2.1. And yet they move, despite their congestion.

4.2.1.1. They move in the following ways:

4.2.1.1.1. Some will windmill about, arms outstretched, pummeling those nearby.

4.2.1.1.2. Their knees locked, several pogo up and down, their hands balled into fists.

4.2.1.1.3. Many high-step, lifting each leg until the thigh is parallel to the floor. I would metaphorize this as almost soldier-like barring the massive lack of synchrony between those engaged in this movement.

4.2.1.1.4. Couples throw themselves at one another, as if to tackle or otherwise subdue each other. I do not believe, they intend to hurt each other, as their smiles evince a peaceable inner experience.

- 4.2.1.1.4.1. This behavior is often referred to as “moshing”. The setting it occurs in is concurrently the “mosh pit”.
- 4.2.1.1.5. One hebody glides across the mosh pit, held up by the supporting arms of the others below. His smile too evinces a content inner experience.
- 4.2.1.1.5.1. And from surfing across the crowd he manages to grab a metal heating pipe overhead and brachiates from it. He swings his legs to and fro before dropping down back into the pit. Upon landing he pounds upon his chest.
- 4.2.1.1.5.1.1. It occurs to me that his actions, atavistic as they are, may be a reference to the name of my band.
- 4.2.1.1.5.1.1.1. “New Ape Idea”.
- 4.2.2. Within the center of the mosh pit a circle forms.
- 4.2.2.1. It consists of several others moving about in the same direction, creating a human whirlpool.
- 4.2.2.1.1. Those who attempt to travel in a direction opposite to that of the current are pummeled by the masses moving against them.
- 4.2.2.1.1.1. Likewise for all those who attempt to stand unmoving within the perimeter of the whirlpool.
- 4.2.2.1.2. The whirlpool seems to emerge from the chaos of the mosh pit.
- 4.2.2.1.2.1. That is to say, there are no prescriptive factors that dictated the formation of the whirlpool.
- 4.2.2.1.2.1.1. Other than the laws of physics and human anatomy of course.
- 4.2.2.1.2.1.2. What I mean to say is the emergence of the whirlpool was likely not premeditated. It is a large pattern that arises from the activity of its sub-components.
- 4.2.2.1.2.1.2.1. Takashi would call this a “basin of attraction” within the “phase space” or Rule 30.
- 4.2.2.1.2.1.2.1.1. Though I often find his words meaningless.
- 4.2.2.1.2.1.2.1.2. I find them meaningless because I largely do not know how to use them.
- 4.2.2.1.2.1.2.1.3. Therefore, the meaning of a word is equivalent to its use.
- 4.2.2.2. Does the whirlpool within the mosh pit have a meaning?
- 4.2.2.2.1. It certainly does not have a grammar.

4.2.2.2.1.1. What I mean is, although there are rules dictating what cannot happen in the mosh pit (one could not fly about the room for example or turn into a pineapple), there are no rules for how the pit ought to function.

4.2.2.2.1.1.1. Ibid. 4.2.2.1.2

4.2.2.2.2. Though I can imagine several uses for the mosh pit.

4.2.2.2.2.1. Physical exercise.

4.2.2.2.2.2. Emotional catharsis.

4.2.2.2.2.3. Analog social intercourse.

4.2.2.2.2.3.1. These uses inform its meaning.

4.2.2.2.2.3.2. The mosh pit does not have one single meaning.

4.2.2.2.2.3.2.1. Meaning varies between those within the pit.

4.2.2.2.2.3.2.2. Therefore the mosh pit is more meaningful than the strange jargon Takashi employs.

4.2.2.2.2.3.2.3. If I am to define how meaningful something is by the number of meanings it has.

4.2.2.3. As the whirlpool grows, consuming more and more of the pit, it subsequently modulates the vocal melody to a greater degree.

4.2.2.3.1. Hearing the sound of my voice grow more and more distorted, those that make up the mosh pit begin to thrash about more vigorously. The human whirlpool at its center increases in velocity.

4.2.2.3.1.1. This feedback loop seems as if it will continue indefinitely.

4.2.2.3.2. I refrain from vocalizing.

4.2.2.3.2.1. I fear that should I continue, the dynamism of the mosh pit will engulf me completely. I too will be swallowed up by the whirlpool.

4.2.2.3.2.2. And yet, the mosh pit continues to grow more chaotic.

4.2.2.3.2.2.1. Its movement enough must be enough to activate the SHANNON and create the auditory illusion of my vocalizing.

4.2.2.3.2.2.1.1. To what extent, then, am I still singing? I do not vocalize, and yet lyrics are heard.

4.2.2.3.2.2.1.2. In this manner, I realize, the music I produce is in some ways independent of me.

5. Takashi is mouthing “Holy Shit! Holy Shit! Holy Shit!”

5.1. He may be vocalizing, although I am unable to hear his voice over the din of our playing.

- 5.2. A large, open-mouthed smile accompanies his vocalizing.
 - 5.2.1. Both upper and lower teeth are visible.
 - 5.2.2. Likely, the smile evinces a positive internal valence.
 - 5.2.2.1. I suppose this is why one smiles: to symbolize an internal state as such.
 - 5.2.2.1.1. A smile is a mark of an emotional experience.
 - 5.2.2.1.2. But cant one also smile deliberately, despite not experiencing a state of happiness?
 - 5.2.2.1.2.1. I liken this to the act of feigning an orgasm so as to not perturb one’s partner.
 - 5.2.2.1.2.1.1. That is to say, the relationship between the expression of sexual pleasure and unstimulated genitals is identical to that between a smile and an anhedonic interior.
 - 5.2.2.1.2.1.1.1. The grammar is consistent while the words differ.
 - 5.2.2.1.2.2. In such a case, one says to herself, “although I feel depressed I will still choose to smile so as to symbolize otherwise.”
 - 5.2.2.1.2.2.1. I cannot imagine a case in which one manages to choose the expression before the interior experience.
 - 5.2.2.1.2.2.2. Marking cannot precede emotion.
- 5.2.2.1.3. One may also smile spontaneously, as if the interior emotion is leaking out.
 - 5.2.2.1.3.1. In such a case, the smiling is intentional, though not necessarily deliberate.
 - 5.2.2.1.3.2. The smiling occurs in concert with the emotion: either simultaneous or with a slight delay after the experience.
 - 5.2.2.1.3.2.1. In both cases the marking does not precede emotion.
- 5.2.2.2. Both a deliberate fake smile, and a genuine spontaneous smile are symbolically equivalent.
 - 5.2.2.2.1.1. Ibid. 5.2.2.1.3.2.1
 - 5.2.2.2.1.2. To what extent then is it fruitful to attempt to parse a genuine from an affected smile?
 - 5.2.2.2.1.2.1. Or to ask whether any emotional display is spontaneous or feigned for that manner?
 - 5.2.2.2.1.2.2. Decoding the interior states of others is an impossibly difficult endeavor.
- 5.2.3. I realize that I do not smile very often.
 - 5.2.3.1. This lack of smiling in itself may mark an array of certain emotional states.
 - 5.2.3.1.1. The large majority of which are negatively valenced. Some neutral.

- 5.2.3.2. Perhaps this is why I find smiling so perplexing: I have little experience doing so.
 - 5.2.3.2.1. Although, I would prefer not to dwell on why I have such trouble remembering the last time I smiled.
 - 5.2.3.2.1.1. Or how smiling even feels for that matter.
 - 5.2.3.2.1.2. I suppose I could smile now and note how it feels.
 - 5.2.3.2.1.2.1. Though that would be a deliberate fake smile. The feeling of the spontaneous and genuine genus would still be unknown to me.
- 5.3. It occurs to me, logically, there could be many others like Takashi.
 - 5.3.1. In that they are only phenotype.
 - 5.3.1.1. By this I mean, there may be others that, like Takashi, give little indication of an aspect to themselves that extends beyond appearance.
 - 5.4. Takashi is concurrently playing the bass guitar as he speaks.
 - 5.4.1. Although his technical proficiency at the bass guitar may be too poor for him to actually be considered a bassist.
 - 5.4.1.1. Though this lack of skill is in itself a popular mores of the punk community.
 - 5.4.1.1.1. In this sense Takashi may not be considered a poseur, as his lack of skill is genuine.
 - 5.4.1.1.1.1. If, however, he purposefully prevented himself from becoming skillful at the bass, would he then be a poseur?
 - 5.4.1.1.1.1.1. Such questions lead me to capitulate on the value of estimating the corresponding inner and outer states of another.
 - 5.4.1.2. Though the notion of consideration is itself difficult.
 - 5.4.1.2.1. In that I consider him too poor a musician to be labeled as a “bassist”.
 - 5.4.1.2.1.1. Of course the criteria for what is poor musicianship color the meaning of the word “bassist”.
 - 5.4.1.2.1.1.1. There are no criteria outside of myself by which to affect the decision to call Takashi a “bassist” or not.
 - 5.4.1.2.1.1.1.1. And yet I find myself using the word “decision” when expressing myself. As if meaning lies within synchrony of another.
 - 5.4.1.2.1.1.1.1.1. It would seem there is no way to express anything without assuming these many subjects.
 - 6. I now wonder about the amount of truth that lies in solipsism.
 - 6.1. That is, to what extent do my mind and my world overlap?
 - 6.2. Of course, solipsism feels true.
 - 6.2.1. In that, I experience only my experiences.

- 6.2.1.1. That is, obviously, a tautology and therefore without meaning.
 - 6.2.1.1.1. Much in the way that saying “a banana is a banana” articulates very little.
- 6.2.2. But how a proposition “feels” shouldn’t affect its truth-value.
 - 6.2.2.1. I therefore may not accept solipsism on such grounds.
 - 6.2.2.1.1. Although perhaps I have done so for most of my existence.
- 6.3. It occurs to me that these private monologues that I have are not possible under the conditions of solipsism.
 - 6.3.1. This proposition in itself feels oxymoronic.
 - 6.3.1.1. Ibid 6.2.2
 - 6.3.2. How can I have a language, if I only communicate with myself?
 - 6.3.2.1. What I mean by this is, why attach words to propositions I already know.
 - 6.3.2.1.1. It seems language is, in itself, an argument against solipsism. There would be no need for me to employ it unless I wished to communicate with another mind.
 - 6.3.2.1.1.1. And in some cases, this other mind is myself.
 - 6.3.2.2. Grammar is the set of snowy footprints that lets one know she is not alone in the cold winter.
- 6.4. In many senses, one cannot be a solipsist in the mosh pit.
 - 6.4.1. After all, how can one be involved in the constant motion, the jostling, the bodies slamming together and yet find themselves truly lonesome?
 - 6.4.2. The mosh pit, as stated earlier, has its own grammar.
 - 6.4.2.1. Ibid 4.2.2.2.1.1
 - 6.4.2.2. The grammar of the mosh pit, like the grammar of a language, flies in the face of the solipsist’s hypothesis.
 - 6.4.2.2.1. How ironic that for so many weeks, these anti-solipsists, the punks before me, were so excited by the paradoxical vocalizing of a solipsists.
 - 6.4.2.2.1.1. Paradoxical in that the solipsist did not realize her own vocalizings negated the one hypothesis she held true above all else.
- 6.5. It seems though that there are several factors that would lead one to embrace solipsism.
 - 6.5.1. Active Lazy Eye use.
 - 6.5.2. Losing one’s parents in a plane crash at an early age.
 - 6.5.3. Allowing oneself to be seduced by logic to the point of failing to grasp the world beyond what is analyzed.
 - 6.5.4. Countless hours in solitude spent practicing guitar.
 - 6.5.5. Immersing oneself in digital realities.
 - 6.5.5.1. As opposed to the singular loggy reality.

6.5.6. Having thousands of robots several micrometers in length course through one's bloodstream, recording and computationalizing every aspect of her body.

6.5.6.1. Although this will not necessarily lead one to solipsism in itself, it will certainly enforce the idea that one's identity is mathematically—and therefore logically—describable in its entirety.

6.5.7. A lack of F2F interaction.

6.5.7.1. The solipsist's condition will be exacerbated if her only avenue of F2F is sexual intercourse.

6.5.8. Constant interior monologuing.

6.5.8.1. And herein lies the challenge: how should I break out of my own head, as it were?

7. After taking a guitar solo that lasts several choruses, I bring my lips to the microphone and begin to vocalize again. The pit responds as one might expect: an explosion of bodies twisting, leaping and slamming about in sync. There is a certain joy, I suppose, in eliciting such action from an audience. I imagine this is what draws Takashi and Douglas to performing. And Ruthie to spectating.

I increase the volume of my voice, though perhaps not consciously. It is a result of an excited affect. The arousal music and dance elicit is a deep-seated, primal sensation, I suppose. Or rather, I feel aroused by the music and dance emanating from and surrounding me. A sensation that, due to its immensity, I can genuinely assert—*ceteris paribus*—that it emerges in part from some matrix of subsystems whose origins vastly precede me. The logic of it all sinfully *a posteriori*. I can barely sim the winter tree neural constellations crackling in concert. Cerebellum keeping me upright and my fingers moving. Mirror circuits snapping within and between Takashi, and I; how else could we achieve rhythmicity with one another? I feel the awakening of a limbic system that has been dormant since puberty. And that is just the neuromotor level of analysis. Change the size of the frame and I could sim the machinations present at the physiologic, perceptual, cognitive, linguistic, phenomenological, and ontogenic levels, to name a few. And the unfounded belief lying beneath every well-thought proposition shows itself:

That anything truthful can be described atomically. As something separate, discreet, singular.

There are no p's and the corresponding q's are a fallacy as well. I could change the size, direction and movement of every single person in the pit. Sing different notes. Strum different chords. And yet, what is in front of me, the mosh pit, will still somehow appear the same: a chaotic whorl of bodies. The same scene emerges from radically different preconditions. And yet I can imagine scenarios that, despite having consistent preconditions, exhibit different results. I may flip a coin in the same manner repeatedly, but the face it lands on is not describable in such a way.

So where is logic? Rules? I recall myself in the back seat of Doug's manual non-Automobile® automobile, lecturing on Reductionism. How foolish I was, yet I found myself so clever. So where does this leave me: one prone to delineating the grammar of everything, finding shelter and comfort in syntax? My Lazy Eyes are lost, my beloved logic crumbling to dust. I feel naked.

And what strange word to use: "I". Any pronoun for that manner. As if any one individual is easily parsed from her surrounding contexts. This unearths another great

unfounded belief: That in attempting to describe a state of the world, you are somehow making that state clearer or more understandable. It would seem the very methods of communication, language itself, is what causes such myopia.

Whereas even ten minutes ago such a syllogism would cause me acute distress, I find this liberating. I sing. I do not vocalize. I do not yell. I sing. And perhaps Takashi and Doug notice because their playing changes in character too. Not in volume, pitch, timber, wave shape. A quality that if I were to attempt to describe it I would surely fail to communicate it accurately.

The activity of the mosh pit changes too; however, I do not notice this at first. I am too caught up in the rapture of my own music. Too enchanted by the scene to actually pay attention, maintain awareness that the pit has changed from a peaceable mosh to an all-out brawl. Fists are hurled. Noses bloodied. Bodies fall to the ground wrapped around other bodies in baroque wrestling holds. It is Ruthie's uncle Dee entrance into the pit that finally captures my intention. I watch as he is swallowed up in it, taken to the ground by a dozen black-clad punkers like ravens descending on an carcass. The walls flash brilliantly the names of bands I've never known and Dee lies face down unmoving and Takashi and Doug cease to play but I cannot stop myself from singing.

2.6.0 Drive

The exact mechanisms by which the Neo-!Kung rationalized riding in the self-driving Automobile® were a mystery to Isa. What with the hunter-gatherer band's abject refusal of almost all human technology. By that logic, almost all forms of ammunitions should be prohibited, and yet nearly every other Neo-!Kung member she had witnessed carried at least a semi-automatic slung across their backs. "Old habits die hard" was what Ruthie said with a shrug when Isa first inquired about the weapons paradox. And then later "any successful hunter-gatherers need to be attuned to ecological pressures and constraints." Perhaps whatever North Jersey fauna they hunted—deer, squirrels, the occasional wild turkey— were difficult to poach without such tools. Or perhaps the rifles were acquired due to a need for self-defense. It wasn't hard to sim the discontent the Neo-!Kung might receive from outsiders, especially disgruntled residences along the NJ/NY border. The state had little affection for them either: the assault or murder of a Neo-!Kung member was hardly punished. Isa could remember reading about bits of legislature floating around the Congress trying to demarcate the band as a terrorist organization back when she had Lazies.

Though small paradoxes such as the Neo-!Kung's propensity for guns and cars despite an intense Luddism had become—at least in the past two weeks—a sort of saccharine mental candy for Isa. Sweet and ephemeral, not the sort of hard-lined conundrums she'd rack her circuits over. Isa sat in the leather back seat of Takashi's van looking out over the foggy Hudson. Takashi at her flank, Julia Sets and Doug in the row behind them, and two nameless Neo-!Kung in the driverless driver's seat and shotgun. Both lean, muscular hebodies, likely in their mid-twenties, they sat statue silent, their guns on their laps at the ready. They wore blue loggy cotton shirts, leant to them by Doug. The kind that couldn't scale to fit at the press of the collar, they sat loosely over the men's bodies, obscuring unchanging ink tattoos of various tribal insignias.

Futurabold had hired four of these Neo-!Kung to serve as security for Rule 30. She told New Ape Idea they would work as long as her Uncle Dee was in the hospital; however, even once he had returned, his jaw wired shut and his right arm fixed in a sling, the Neo-!Kung had stayed. The four of them, two hebodies and two shebodies, stood vigil during shows. One in each corner of Rule 30's atrium. So as to not scare the concert going audience, they left their rifles in **Futurabold**'s office. Instead they discreetly carried Desert Eagles in hidden holsters. Not once did they mosh or nod their heads or tap their toes. The paleoliths seemed somehow immune to the atavistic power of New Ape Idea's sound that managed to enchant anyone else that listened. Maybe they wore earplugs. Another form of technology, albeit a simpler one, that they paradoxically accepted.

Perhaps, thought Isa, these questions regarding the four nameless Neo-!Kung arose because of a labeling error. As in they, like **Futurabold**, were not active paleoliths but ex-members. Defectors no longer enchanted by the prospect of shedding off the conveniences of modernity, or maybe even no longer enchanted by the prospect of observing firsthand those enchanted by the prospect of going primal. (Anthropology is a recursive hobby.) Though **Futurabold** was loquacious, willful. To some, friendly. These neo-!Kung were silent though. Isa had read reports of Neo-!Kung contact before;

most involved hebodies and shebodies stayed tacit out of deference to a strict no-contact-with-outsiders rule. Thus, the four were likely active members of the band.

Another paradox: That although she had spent so much of her life in silence, Isa still found those with a likewise affect to be mysterious or unreadable.

These quandaries were but the mildest of a long list of cerebrum-crushing unknowns Isa had mulled over recently. Some proved too scary to dwell on for too long: her palms would moisten and, after an hour or so, a vasovagal headache might appear as if the blood in her brain turned more viscous and grainy. The technology use of the Neo-Kung bouncers was sweet and mild in comparison to heavier items. Items such as “Why am I on the flash drive Takashi stole?” or “Why does Ruthie, after months of sexual relations, now seem to avoid even casual F2F?” aroused a sort of nausea in Isa’s frontal cortex.

Takashi claimed the drive was just, like, laying there when he picked it off the mixing board. This was during New Ape Idea’s second studio session with Melodica. He claimed Mr. Halisdol must’ve left it behind, which is likely an untruth given that he had not come to the studio with them for the past month. Mr. Halisdol only showed up to the first one wearing the same tweed jacket and fedora as when Isa first met him. (Some hebodies just like to set their clothes to the same outfit every day, Isa thought.) He seemed jittery and nervous like before as well, though perhaps such was his emotional base state. The sound engineer, a bearded hebody the shape of an upside-down pear had been in attendance each of their weekly sessions. Unlike Mr. Halisdol, he seemed to possess an almost Taoist aura of contentment and smelled faintly of non-synth.

The sound engineer, who asked that he be called Toad, was genial to all except Takashi, who he took a quick disliking to. After New Ape Idea gunned out a quick demo of one tune—a song Toad aptly suggested be called “Banana”—during their first session, Takashi drew vocal offense to the auto-tuning of his bass track. The vibrations emanating from Isa’s amplifier stack were still reverberating around the booth when Toad, with a wink, turned a complex array of knobs on his baroque soundboard and played the demo back to the band. Their rendition of “Banana”, flat and nowhere near as energetic as any of their live performances, sounded completely different, as if played on several glockenspiels rather than electric guitars and drums. Isa’s vocal line was somehow morphed into a wordless series of metallic chimes. For reasons Isa could not immediately garner, Toad’s mixing incensed Takashi. He nearly threw his Rickenbacker to the ground, angry veins protruding from his forehead and blurted a string of morphemes referencing “artistic integrity” and “creative licensing”. From his throne, Lamarck-Ganoush casually cleaned his loggy glasses with the edge of his shirt and reminded Tak that he had signed away their rights to such months ago. If his intent was to calm Takashi, Isa thought, his efforts were ineffectual.

The recording sessions occurred every Thursday and lasted an entire workday. About 9 hours, including a lunch break, catering funded by Melodica. Isa didn’t mind the cold cuts and cheeses provided for them every noon. Takashi refused to touch the stuff, citing to Toad a litany of anarcho-veganist philosophy during their first session. Perhaps he had low blood sugar, thus eliciting his foul mood. Guessing the mental states of others, once the top occupational hazard of being human to Isa, now became something of a game. Match the label with the emotional valence, or something like that. Her

mechanisms of outrospection were atrophied after over a decade and a half of non-use. Exercising them though proved to be less strenuous than fun for Isa.

In fact, such outrospection proved to be a valuable tool for surviving these Thursdays. Isa at times found the studio alienating, and so did Takashi, she hypothesized, though for different reasons. To her, the soft egg carton walls reminded her of the certain padding of walls in a once-familiar habitat; memory circa 2018 or so. For the first few ours of down time the morning of session 1, she passed the idle time untangling whether the memory of the walls was from that 2018 (i. e., (neuro/physio)logically encoded during that year) or if they just, like, *felt* like they came from that time. That a door coated in the foamy sinusoids could absorb both the soprano shrieks of a prepubescent child as well as the kinetic force of her throwing her 90 lbs. mass against it. And a comforting feeling too. That such (insu/iso)lation afforded one a whisper-quiet zone of quiet, content introversion. That an ugly memory could also evoke nostalgia: another paradox for the list. Takashi likely had no such memories, Isa speculated. Although he always was temperamental to a degree, on these Thursdays he acted something asymptotic to utterly insufferable. “Asshole” was a kind euphemism. Though, Isa suspected it stemmed from an isomorphic unease with the shared environment. Last lunch break, Doug, between bites of Petri-dish prosciutto, said he thought Takashi was suffering the “Sisyphean agony of self-actualized poseurdom”. That a record deal—often the sign of having “made it” as a musician—failed to grant Tak any feelings of accomplishment or satisfaction. That even since UG the hebody allocated more effort towards *appearing* a talented creative musician rather than spending time cultivating any skill. That should New Ape Idea continue to ride along this eigenvector of small successes — The glowing write-ups in *Staph Infection*, which began to spill over into mainstream blog aggregators, the chronically oversold tri-weekly concerts, contract w/ Melodica notwithstanding— each and every vector of accomplishment would continue to be rendered unsatisfactory for Takashi. The hebody was a narcissist but not delusional, said Doug. Tak was more than aware of his lack of talent or ability. He was always concerned with appearance upkeep, you know, external measures of success. Each of these past studio sessions likely made Miyagi-Edelstein feel as if he was drawing an inch closer to being found out for the poseur that he feared/knew he was. His mood swings a sort of manifest interaction effect between a phobia of being outed as a poser, and a calculated affect drawn from legends, mercurial punk rock legends, in the studios of yore. If he didn’t claim to be whatever he meant by vegan-post-straight-edge, he’d probably string himself out on organic non-synth H just to seem like Richard Hell.

Doug wiped at his chin with his sleeve. The overarching irony was that Takashi, for all his efforts to avoid being found out as a poseur, was easily judged as such by the three or four sapiens that bothered to get to know him.

Isa fingered an orange cube of cheddar cheese. How was Takashi not utterly unknowable to her? She was familiar with the dual comfort and terror in solipsism, in finding that her inside and the world were synonymous. Whereas Takashi neglected that he even had an inner experience worth holding true to. That his outside expression could compensate for a deteriorated interior. Her private pains though did not feel that private at all: she could read them fluently written all over Tak. An impressive interpersonal feat given that his pains were of a source directly contrary to anything Isa could have known. She empathized with him. And while such empathizing necessitated that she simmed his

alienation, his frustration with himself, there was also a pleasure in it. A sweetness in recognizing that she was able to modulate from the cool recesses of her own mind to that of another's.

New York's roads were even more poorly maintained than New Jersey's. The passengers bounced as the van rumbled down route 4, the pavement acned with potholes. The Neo-!Kung sitting shotgun pressed his nose to the window, smashing it cartoonish. A flattened hand shielded sunlight from his eyes as he kept watch in silence.

Isa pinched the drive between her index finger and thumb. The thing was no bigger than a discontinued penny. It was coated in a slack black plastic, no marks or corporate insignias showed themselves. During one of his fits, Takashi pinched it from beneath the studio's soundboard. Toad was in the bathroom, and though with him at the time, Isa and Doug failed to notice his thieving until he presented them with the files he had decrypted inside it.

"I've got a nose for juicy data," Takashi had said. He'd plugged the drive into a USB port in Ruthie's computer while she was out of the office. Doug and I were quarantined in there with him, as per usual before shows. "Even through a couple layers of gov-grade encryption, though that's not saying much," he thumbed at some food detritus in the corner of his lips. "I mean, any code monkey with a megabyte of a talent will go to corporatized school like us. The feds, though, can only hire grads from public universities. Y'know, the ones that haven't been bought and incorporated yet." With two fingers he expanded the monitor and turned it towards us. "But I digress."

A baroque post-metal quartet played in the other room. Even through the walls Isa could hear that both their guitarists did not use picks, opting to tap the strings on their fret board rapidly as if arpeggiating on a keyboard.

The monitor's bonobo wallpaper went dark as a string of characters began to run across it.

"What you see here are thousands of pieces of information being appended on to a bubble of vector every millisecond," Takashi had said. "This database has been running for nearly fifteen years."

Isa recalled Doug stood up from the crate he was reading atop of and smoothing the back of his sweatpants. "Why did you steal this, Tak?"

"I'm not the thief here, Lamarck-Ganoush, if you can believe it!" Like a maestro conducting a symphony in compound time, Takashi waved his arms about in front of the screen, opening and closing windows as he did so. "Check out the name of the file," he said.

Isa squinted instinctively so as to zoom in on the letterings. *Cyborg instincts uninstall hard* was a phrase common amongst entrant Neo-!Kung band members who had trouble adjusting to the Luddite lifestyle. In the lower right-hand corner read **Spines.Isabel.mbe**.

"Courtney Christ," Doug had said. "What the fuck is this?"

"Well I've been combing through it," said Takashi. "A few of the vectors have names, but most are unmarked. The ones that I could read seemed to correspond to different body functions I guess. Heart rate, blood pressure, basal metabolic rate, you get the idea."

Sitting in the van, sensing a clear road and speeding up to near 150 mph, Isa could not remember the exact emotions she experienced upon reading her name. Even her

memories of the event were devoid of any positive or negative valence. There was simply a presence. A presence of the screen, of the room, of Doug and Tak. Even Ruthie's absence was a sort of presence. All sense data hitting perceptual inputs, but no correlating feelings.

"This belonged to Toad?" was the first thing she had said.

"Not necessarily," Takashi shaking his head. "The only evidence suggesting so was that I found it in Toad's studio. That's it. Against a large pool of data suggesting he has little knowledge of the contents of the drive. In fact, I'm willing to risk the hypothesis that Toad has nothing to do with it at all."

"Why?" Doug asked.

"Well, I had to decrypt the file," Tak had said. "Piece of cake. Whoever encrypted it used his state's area code as a key. Elementary stuff, first semester cryptology at UG. Akin to prepubescent-boys-in-a-treehouse-w/-a-plastic-decoder-ring level encryption. Of course, most gov code monkeys don't know any better." Takashi had paused to tilt his head left and then right, cracking his neck both times. "I used 212 as my second guess. Manhattan, NYC. It's not a huge inference to assume the database originates from there."

"So it's not Mr. Halisdol's either," Doug had said. "By that logic."

"Impossible, yes." I generally agree DLG, but I'm unwilling to rule out the possibility. Didn't Sets say he came from New York?"

"But he's a corporate suit," Doug had added. "Not involved with the state. Plus to cross between Manhattan and Jersey would require a connection with either the Neo-!Kung or the feds. Both maybe."

"Corporate suits, gov suits, what's the difference these days?"

When Isa played guitar one hour later she could barely focus. Her fingers felt leaden and clumsy. She'd open her mouth, but hardly anything melodic could be shaken out from her vocal chords. The mosh pit and Takashi's SHANNON carried the onus of singing for her. Though New Ape Idea sounded lackluster that show, the mosh pit had raged as always. People come to shows to see themselves on stage, Takashi had once said to her. Perhaps the sentiment was his way of feeding his strange-loop between fake and narcissist. Isa had begun suspect the opposite, that individuals attend shows to hear what they want. To write their own lyrics and melodies in the noise the band and pit provide. To feel like both a master lyricist and an inspired listener. Regardless, even during New Ape Idea's weaker sets, the crowd never ceased to radiate kinetic energy and excitement.

Ruthie was unwilling to go to Manhattan with Doug, Takashi, Julia and Isa, opting to stay at Rule 30 instead. Perhaps in allowing the two Neo-!Kung to serve as transport she felt she was contributing to the investigation, Isa simmed. When she found Takashi unspooling the flash drive's contents on her office computer, she had banned Tak from using it. Perhaps pragmatically so, Tak had pirated all the soft elements of the computer, even the OS was pinched from a gov source. Not the most secure system for whatever detective work Miyagi-Edelstein had fancied for him. Needless to say, Tak threw a fit at this.

Though, Isa had to wonder, how does one separate a fit Takashi threw in Rule 30 from one in the recording studio? If the hebody exhibited a constant dysthymic affect, how is one to parse such a mood? Is it fair to say he threw individual distinct fits in the recording studio, in Ruthie's office, on stage at Rule 30 et al.? Behavior has the curious function of appearing both continuous and discreetly, Isa thought. She could certainly

parse within herself a happy experience from a sad one, and it seemed she was able to do so when observing Others. But the constellation of emotions any one seemed to be facilitating at any one moment could easily blend to the next. Humans cannot be finite state machines like a self-driving car or an automated food dispenser, one minute in a drive() servos, the next a brake() ballistic—an axiom Spines was only beginning to understand. Sure behavior seemed continuous, and yet Isa could still affix labels to specific affects. Isa knew to dwell on this meant to submit oneself to an endless pitfall down the rabbit hole of language. The wet-ice slipperiness of some morphemes seemed to be at the heart of all her philosophical problems.

Somewhere in the backstreets Fort Lee the driver disbanded the self-driving modules of the Automobile® in favor of manual driving mode. Immediately the van slowed down, the driver reducing the speed to about a sixth of what it was before. A spore of nausea began to germinate in Isa's intestines as the deceleration threw her along with the 5 others in the van forward. Tak, who had not worn a seatbelt for the drive, was thrown to the ground from which he emitted a string of curses in three languages before lifting himself back up to his seat unharmed. Through the van's windows, day-glow Korean characters shined down on them from outside buildings, the neon bright enough to pierce both the afternoon daylight and the windows' tinting. No cars—Automobile® or otherwise—were on the road aside from them. These shifts from self-driving to manual and the accompanying deceleration were not possible on crowded streets. Even with their ultra-fast response times, 20x times faster than the average human's parasympathetic reflexes, any nearby Automobiles® could have wrecked themselves against the slowing van.

How odd that these anti-tech paleoliths made the deftest drivers, thought Isa.

Takashi shook his head from side to side. "The fuck is that for?"

The Neo-!Kung riding shotgun, an unshaven hebody appearing to be in his thirties turned his body around in his seat and eyed Takashi. His face seemed to be more chin than anything else. He did not speak, unsurprisingly, only nodded at Takashi while he fingered the safety of his gun.

But the rationale behind the van's shift to manual drive soon showed itself. Turning the steering wheel hand over hand over hand, the driver took the van off of the Fort Lee backstreets and down onto the sandy shoals of the Hudson river and pulled over—a series of off-road maneuvers unexecutable by an automatic driver. With a thumbs-up gesture the driver signaled all the passengers to exit the vehicle. Before Isa could puzzle herself over how she was able to understand the meaning of a gesture with no grammatical or verbal components, Doug grabbed her by the arm and pulled her to the ground. The pullulating metallic clicks of rifles being drawn and loaded. Lying prone on the ground, sandwiched between the masses of Sets and Lamarck-Ganoush, Isa peaked out and could see two more gunmen emerging from the riverbanks. They too wore the bodypaint and loose-fitting, unchanging clothes of the Neo-!Kung. The driver raised a hand and the other three mimicked before lowering their rifles in synchrony.

Following Julia, Doug and Takashi, Isa rose to her feet. She still had the flash drive tucked into her palm. Three of the Neo-!Kung retreated down the river bank. Only the driver remained with the four, silently unloading his rifle.

The last time Isa had seen the Hudson river, the water was much bluer. It had been dyed as a massively-funded tourism ploy in the early twenties, Mayor Trump's logic

being that the old river, more gray-green than blue or clear, upset potential visitors, giving New York City a dirty, polluted aura. When she had been eleven or twelve, the orphanage took her, along with the nameless others, to the river banks as a field trip. The river still had the same cerulean hue— so vivid it was almost a parody of what water was supposed to look like, like water on an atlas map— and it smelled of hand sanitizer. This though, said the chaperone, was a marked improvement over its past state, thank Christie.

Though memories dating this far back were difficult for Isa to grasp, as were most of her years as a ward of the state. Stored sense data felt corrupted, remembered faces had the quality of print photographs smeared with petroleum jelly. An immediate clarity began around puberty, after the DUSTing, when she was moved from the asylums, given a public school smartphone and social networking account and sent via DIFUS through the New Jersey foster family system. Discovery of the cello at age 13 clearing the fog further. By the time she had matriculated to University of Google New Brunswick, her memories, like the Hudson appeared to her as almost artificially clear. Perhaps that could be attributed to the Lazy Eyes she began wearing freshman year, once all her social, academic and romantic interactions could be logged, edited and stored externally to her meatware.

Unlike the two that drove Isa down here, the other Neo-!Kung spoke aloud. Isa was surprised to hear that they had mild Appalachian accents, though the majority of the lexemes they emitted were not decipherable from the distance. Along with the shotgunner, they returned up the bank and gestured for the five by the van to follow.

The Hudson no longer smelled antiseptic, Isa noted. Instead it had a fishy quality, not unlike canned tuna. Ironic, given that the river was completely incapable of sustaining any form of marine ecosystem.

One of the vocal Neo-!Kung laughed as he tugged the motor to life. At first glance, the ferry seemed to be able to carry at most one or two individuals; however, all eight were to board. The second of the river Neo-!Kung offered a hand to Julia and then Isa as they were lead on to the motorboat. Takashi, Doug and the two Neo-!Kung chaperones were not proffered such acts of chivalry. Isa immediately fell to a sit, lacking sea legs even when the boat was at a dock. She had never been on a boat that she could remember, she realized.

Overhead she could see the George Washington Bridge, maybe a dozen cars making use of it. The canary yellow border checkpoints on each end contrasted greatly with the old steel girders of the bridge. She had crossed the George Washington before, most recently during her Hudson field trip. She could remember those yellow booths too, down to the unsmiling visage of the state patrollers who checked licenses from behind bulletproof glass within them. However, this memory was likely false. At that time crossing state borders without a registered RIFD tag wasn't punishable by law, let alone a felony. Odd how perceptions in the present can color representations of the past, whether through some coding error in hippocampal networks or Shannon entropy in the mindbrain at large.

Isa couldn't sim whether the patrollers 150 meters above her could see the little motorboat zigzagging across the water, white-capped tail wave at the bow. Or if they did, whether they cared. Certainly their crossing was illegal, though Isa could perceive no legal impediments to it. The act, while forbidden, was tacitly allowed. Isa considered breaching the silence of her shipmates with this question but could not. Maybe because

her conversation-starting muscles had atrophied to thin gristle with years of no exercise. Or the gasoline hum of the motor coupled with the sloshing of the waves made conversing below a yell impossible. So she sat in silence. Like she was used to.

About ten meters out from the Manhattan bank, one of the Appalachian Neo-!Kung killed the engine before leaping out of the boat and wading towards the shore. His partner followed, both gripping the stern tip and pulling the metal thing towards the sandy shoal ahead. The beach wasn't wide, the majority of it cut off by a concrete wall below the parkway. Besides the Automobiles® zooming past on the highway above, the group was alone. About a quarter-mile down, Isa could see a man snoozing in a plastic lawn chair, a cast fishing reel anchored in the sand. No other sapiens were present on the beach.

"Alright," said one of the Neo-!Kung, the first of the hunter-gatherers to address any of the others for the duration of the trip. "Walk about a half-mile north along the beach and you'll find a slope that will take you to the city proper. Whereabouts you headin'?"

"Chelsea," said Julia Sets. She had the blank fish-face of one reading off of her Lazies while pretending to F2F. "27th and 6th."

"Whew, Chelsea," said the Neo-!Kung. He squatted down and scraped mud off of his feet and calves as he spoke. "You'll have to call a cab to get there."

"**Futurabold** didn't arrange a ride for us?" said Tak.

"Who McRogers?"

Takashi bugged out his eyes like, no shit and nodded.

"I heard nothin'," said the Neo-!Kung. "We man the ship." He nodded at his partner who proceeded to reenter the motorboat, one leg at a time. "Those others drive the car. The few of us liberal enough to engage with transportational technologies usually stick to one type of vehicle."

Tak turned towards Doug, but the glance went unreturned. Hands in his pockets, Doug milled about the beach, eyeing the concrete barricade covered in unchanging graffiti from decades past. With a shudder, the motorboat came to life. The Neo-!Kung inserted two fingers into his mouth and whistled to his partner. A quick hand wave was returned.

"Call a cab?" Tak's speech had a nasally, viscous quality to it. "Like, on a cell phone?"

The Neo-!Kung, satisfied that his legs were thoroughly de-caked of Hudson ooze, stepped into the boat. "I'm not the one to ask," he said before grasping his other by the shoulder and motoring off.

"I already placed an order," said Julia. She blinked twice, implicating her Eyes. "They're meeting us near here, on the Upper West Side." Her voice sounded hollowed out, perhaps in a plaintiff vector thought Isa. Or maybe acute laryngitis.

"I'm not paying for a fucking cab," Takashi said. He waved his hand, eliciting a flippant affect to his speaking. "One K a piece just to travel two miles. Can't afford that shit."

"You've been making twenty grand a week from shows," said Doug. "Where'd that go?" He caught himself mimicking Takashi's hand movements, winced and removed a kerchief from a cargo pocket and dabbed at some perspiration dewing up around his collarbone.

“None of yr goddamn business, Lamarck-Ganoush.”

“I’ll cover it,” said Julia.

“Is Melodica comping this?” asked Doug.

“No.” Julia shook her head. “I’ll cover it. I insist.”

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With a pre-recorded “Thankyouforyourbusinessweknowyouhaveachoiceinself-drivingtransportationandwethankyouforchoosingAutonomobile®Cabsaproudmemberofthe-Autonomobile®familyhaveanexcellentsday” upon the closing of its doors, the yellow cab zipped off. It seemed Julia paid through her Lazies as no paper, plastic or digital capital was visibly handled. From the corner, the four waited for the traffic light to show green before crossing. Takashi moaned something about being able to jaywalk any time you wanted when his parents lived on the Lower East Side. Though back then the streets were not whooshing with robotic cars travelling at three times the human-driving speed limit.

Like the Meadowlands complex, this Manhattan Melodica tower was living, though in New York, about half of the skyscrapers Isa could see had the bamboo-and-foliage thatching for walls and roofs checkered with solar cells. The concrete, steel and glass of the older buildings seemed desperately unhip in comparison. The building had a semicircular car roundabout, not unlike the emergency-room entrance of a hospital, though the ten or so parking spaces were all unoccupied. Takashi approached the plexiglass sliding doors, though they did not open in automated obeisance when he stood in front of them.

“Here. I’ve got it,” said Sets. She flipped an adjacent plastic latch and stared into the retinal scanner. The doors swooshed open.

“Employees only?” said Doug.

Sets shook her head. “Not even,” she said. “I had to design a patch to make my Eyes have an identical registration code to Evan Halisdol’s.”

“I don’t remember this in New Jersey.”

“Well, the going-ons in Manhattan are a bit more, well, high priority,” said Sets. She pinched her collar turning her tank top into a pink blouse. “From what I understand.”

“Are we gonna be able to even walk around in here?” said Takashi, craning his neck into the lobby.

“Most likely take for granted the gullibility of the building’s so-called ‘smart’ security system,” said Julia, evoking quotation marks with two bunny-ear finger crooks. “Just act like an intern.”

Julia approached Tak and looped her index finger into the apex of his vintage v-neck. He screwed up his eyes, closed them and opened them again as an eggshell button-down emerged, larger than the previous t by at least two sizes. His sleeves extended and curtailed above his elbows, giving the impression of full sleeves rolled up in an effort to increase forearm (visi/mo)bility so as to increase work efficiency. Or at least to present the affect of such. A maroon tartan tie slithered out tongue-like and pacified when it had reached full length.

A nod from Sets towards Isa, then Doug. Isa’s tank turned to turtleneck, obscuring her undulating tattoos. Doug unzipped a hoodie and removed it, revealing an undersized hand-tied bowtie knotted through the collar of a sweat-stained business shirt. Doug tied the hoodie around his waist.

“How, though?” Isa caught herself mumbling.

“What now?” said Takashi. The doors began to close; he extended a hand between them, reversing their trajectories. “She speaks!”

“Acting like an intern,” said Isa, this time at a more conversational decibel level. “Are there recommended techniques for doing so?”

Tak and Doug shared a look, and Doug spoke. “Just pretend you work here. I don’t know, watch how you hold your spine for starters. I’ve been reading a little Alexander technique if that’s of interest.”

“I just feel apprehensive,” said Isa. “Without delving too far into etiology, I am the reason we’ve come here.”

“And a gnawing curiosity about that database,” said Takashi. The doors began to spasm jaw-like, closing then opening then closing again but never completely chomping down on his elbow, still extended into the portal. “Though that isn’t exactly extricable from you, Spines. Guess yr right.”

“And paranoia,” said Doug. “Of a genus that sits in your bones and refuses to leave.”

“I empathize with both of you.” Isa felt a twitch of giggling excitement wriggle through her cloud of anxiety. “Though I cannot falsify the proposition that I am, for reasons of note, an individual of note to Melodica. Perhaps they are expecting my presence here.”

“We can’t refute that, no,” said Lamarck-Ganoush. “Though for all we know, Melodica could have analogous flash drives for all of us, Takashi just happened to pilfer only yours. Right Julia?”

Julia made a sound. Isa could not decipher whether it was a hum of affirmation or a happenstance non-verbal utterance, devoid of any meaning.

“Speculation,” said Isa. “But if true, it only compounds my worries. In past circumstances I’d simply play the mute and hope to avoid attention, though I have doubts that may suffice this time. And so I return to my earlier question: how can I act as an intern?”

Sets sighed audibly. Though her exhaled sounded controlled, Isa noted, as though it was intended to be a private expression. (And how exactly may one express something solely for oneself? Furthermore, how could Isa identify the sigh as such? Two more paradoxes to append to the list.) She grabbed both Isa and Doug by the wrist and led them into the tower lobby. “Just keep quiet,” she said. “Like usual. I can guarantee most folks working here are intimately acquainted with monotony. Pretend you’re an OS executing lines of shell script.”

“I can do that,” said Isa, following her.

“I’ve noticed,” said Sets. The plexiglass closed and locked itself behind them. “As have many others.”

The lobby was expansive and empty. To the left of the entrance was a bamboo receptionist’s desk, the majority of its top a large tablet running an idle animation of the company’s logo: *Melodica* written in a golden font with ample serifs. Behind it, animated strings vibrated soundlessly. And below the title a catchphrase shimmered gently: *Live in Harmony*. At the far end of the room were six elevator shafts, five of which waited unused at the ground floor according to a rectangular screen above them. The room was

illuminated with a fresh clean light, like sunlight on a cloudless spring afternoon; however, Isa did not see any lamps, fluorescent tubes or similar light sources.

Takashi whistled. "Where is everybody?"

"It's almost 9 pm," said Sets. "The complex has been closed for three hours."

"But we got in."

Sets brushed a thick skein of hair out of eyes. "Evan Halisdol was a research tech before moving to the Meadowlands," she said. "It's Melodica policy to keep facilities available for R&D folks 24/7. I was banking on New York being slow to take Evan Halisdol off of some approval list."

"There's no, erm, *security*?" said Doug. He twirled the tip of his business tie between his porcine index finger and thumb.

"A few guards patrolling here and there," said Sets. "Though I've never come across them in Jersey."

The twirling of Doug's tie began a constant acceleration.

A beat. "Though most security at Melodica is automated," Sets added. "Like you saw at the door. Nothing worth sweating, I'd say."

Doug moseyed around the lobby inspecting the novel space, his mouth slightly agape. The pants fabric covering his inner thighs swished as he walked. A long meditative inhale through his nostrils. "Impressive building," he said. "I don't think I took the time to appreciate the architecture in New Jersey." He paused beneath a large framed print of a French impressionist painting, hanging above a pair of love seats and a worktable. Isa recognized the print as a Mary Cassatt, the memory stored in an episodic schema of another field trip from the orphanage, this one to the Metropolitan Museum of Art. The softly colored mother caressing her baby was the giveaway, though Isa couldn't remember the painting's title. Perhaps she never learned it in the first place. A shame, with her Lazy Eyes she'd be able to draw out the work's title, painter, date and several important related works of criticism with just two squints and a nod.

"So where are we going?" Doug said. "We've infiltrated Melodica, the interior design is spot on, now what?"

"Who's got the file?" Takashi near yelled.

Isa removed the black prism for her pocket and laid it flat on her palm in front of her. Takashi snatched it up like a greedy toddler. "Let's mine a bit, boyo," he said and approached the receptionist's desk. He disappeared beneath it before emitting a "Eureka!" and returning upright. His blonde spikes seemed to hum electric as he excitedly ran his hands across the tablet screen.

"What are you doing, Takahi?" A grace note of worry preceding every word he spoke.

"In a nutshell DLG, I'm pinging the disk here to find some access to the company's server system. From there I have little worms I've build and added to the flash drive, nothing too invasive or noticeable. But they're gonna dig out all references to Isa, You, Me or New Ape Idea and compile them to a list which I'll import back onto the drive. From there we should find what we need to find."

Sets, unseen by Takashi's manic tableting, approached the desk and peered over the screen. "He's just searching Isa's name in various directories," she said.

Takashi looked at her something poisonous.

“If you’re going to lie,” said Sets, “At least know the parameters of your audience. You can maybe fool Doug and Isa with badly rendered computer jargon, but not me.”

“Well, my efforts are paying off,” said Takashi between closed teeth. “Both my name and Doug’s return a little over 50 results, the large majority seem to be just contractual/legal shit.” Takashi shrugged. “But Isa, or actually the search term was ‘Isabel Spines’ returns thousands of links. All to other pages of Melodica’s.”

Isa felt her intestines calcify. “Are these largely pertaining to New Ape Idea? Lullabies?”

“Indeterminate,” replied Takashi. “But probability suggests otherwise, metasearches indicate most of these results do not even mention Doug, the band or yrs truly.”

“...”

“Any idea what DUST is?” Takashi looked up from the screen. “Not in the detritus vector. All caps, an acronym for something.”

“...”

“...”

“...”

“...”

“It’s an early microrobotics network prototype,” said Julia, cracking the shared silence. “No idea what the initials stand for.” A sidelong glance to Isa, then to Tak. “I’m pretty sure I covered this in a systems administration module in UG, so it’s been a while. A simple enough decentralized network, mostly tested on non-human primates, built for somatic monitoring, cheap preventative healthcare as I recall.”

“Checks out,” Takashi again, “Save the ‘non-human primates’ bit. Seems prototypic subjects were quite human.”

Julia squinched up the corners of her eyes, likely manipulating her Lazies. “I don’t feel good about being here. **Futurabold** said our ride will be waiting for us, right?”

Doug approached the elevator shafts. All appeared to be stagnant. “As long as the building’s clear—“

“Microbots, not nanobots,” said Tak, shaking his head. “Ancient stuff. This ringing any bells Spines? Any familiar lines?”

“More pictures than words.”

Takashi removed his gaze from the consol, though his fingertips kept up their interfacing. “Yeah? What of?”

“A doctor. I was a younger shebody. He couldn’t walk. His legs were manipulated by an old automatic exoskeleton, highly outmodeled by today’s standards.”

Takashi bobbed his head in an excited nod. “Fascinating but fruitless. No names? Locations? Your full name and paraplegic yield an entirely new list of results, probably confusion regarding the term ‘Spines’.”

“I can’t recall.”

“Can’t really discern what a lullaby company has to do with failed microrobotics, but whatever,” said Takashi. “Connection’s there, and hell, this is a receptionist’s desk.”

“Does this have the same layout as the Meadowland’s complex?” said Doug, hands folded clerically behind his back.

“Does it look it?” Julia snapped.

“The lobby is certainly different, obviously,” said Doug. “What I mean is, how similar are they? Offices above ground, labs in the basement?”

“I’d assume so, I believe that’s protocol.”

Doug nodded. “Peculiar. The elevator landing displays don’t indicate any basement floors.”

“No, they’re here,” said Takashi. “But it looks like they only have two basement floors, not some Willy Wonka sub-ground complex like in Jersey. I guess going deeper would interfere with the subway system or something.”

“People still use that?” said Doug.

“Wrong hebody to ask, Lamarck-Ganoush.” Tak broke from interfacing to crack his knuckles. “Though the drive’s pin number has a laboratory key. I’d assume we make use of those elevators.”

“I wouldn’t,” Sets cut in.

Three sets of eyes affixed themselves to her. Tak’s with an eyebrow cocked like, what?

Julia picked off a crescent of fingernail hanging off the pink of her middle finger with her teeth before speaking. “The white-collar employees may have turned in for the day, but I’m sure there are at least two dozen technicians in the lab. As you saw before, they have 24-hour access.”

“We can pass as techs,” said Takashi. A wry close-lipped smile as he set his shirt from business-casual to include a white lab coat overtop.

“You look like you walked out of a 20th century sci-fi film,” said Lamarck-Ganoush.

“This is how the techs dressed in New Jersey,” said Takashi. “Least the ones I saw. How’s the accuracy Sets.”

“It’s accurate enough,” Sets, shaking her head. “Lamentably.”

Tak’s smirk evolved to a toothier genus. No cue, verbal or gestural was necessary for Isa to follow suit with her outfit.

“Well, I’m stuck,” said Doug gesturing towards his tie. “This is all I brought.”

“I’m staying here,” said Julia. “I’m not risking it.”

“I’ll keep you company,” said Doug.

“Romantic,” said Takashi. He dipped beneath the desk to remove the flash drive. Upon reemerging, with a broad two-fingered stroke he reset the tablet to its welcome screen. After planting his hands on a non-digital desktop surface, he vaulted over the desk and stuck the landing. “Let’s go, Spines,” he said summoning one of the at-the-ready elevators.

Julia Sets had highballed the laboratory population. The lab—a sea of cubicles and overhead fluorescent tubes—also seemed to double as a server room. Though there was no poverty of light sources, the whole room felt under-lit, as typical for basements. A stack of deep blue mainframes in the center had the strange property of seeming to absorb light. They remained almost invisibly dark save the blinking of LEDs across their chasses. Across the labyrinth of white half-walls were a series of doors. Above one Isa could read “Storage”, another “Nursery.” Perhaps 20 meters away, in the outer orbit of the lab’s server nucleus, a few wild-haired hebodies conversed inaudibly. Both had a set of Lazy Eyes on full projection mode. They paid Tak and Isa no mind.

Takashi surveyed the chiaroscuro laboratory, wetting his lips with a few lupine licks. He held the flash drive to his breast in a similar vector to a medieval pilgrim clutching a lock of hair from a deceased saint.

“What’s out next step?” Isa, barely above a whisper.

“We’re well outside the atmosphere of speculation,” Tak returned at a much higher decibel level.

“About me?”

“Oh yeah, boyo,” said Tak. He approached one of the white cubical walls and peeked over it. “Yr name is all over this place. We know that. I’m interested in on honing in on the exact correlate between you and Melodica.”

“Perhaps I don’t want that.”

Tak craned his head around. “You don’t *want* that?” His voice at a biting whisper. “Listen, I don’t doubt the truths we may uncover will be, to a degree, *inconvenient*. For you at least. But Courtney Christ if that doesn’t make it, like, imperative we figure out what’s up.

“Think about it. You: Isabel Spines orphaned at a young age and thrown around the NJ foster system until college. Despite having an interpersonal acumen that makes the Dalai Lama look autistic, you manage to front a band which some say has single-handedly revived punk counterculture. Before that can even happen though, yr approached for a children’s music record deal by some inter-state conglomerate, which apparently has *years* of weirdly intimate data on you.

“There are just too many loose ends floating about. I mean, like, how could you not be insatiably curious?”

Isa inhaled through her nose and shut her eyes. Curiosity was one of those strange emotions that holds adamant to any of Isa’s ratiocinations. Even more so fear—the cotrisol tremblings of parasympathetic circuits—refused to yield to any concoction of deep breaths, applied logical axioms and soothing shoulder rolls. “I’m curious,” Isa said, reopening her eyes. “But not enough to risk physical harm.”

“Grow some stones, Spines,” said Tak. “Where’s the risk? I don’t see it.” Palm up, he panned his hand across the cavernous, beeping laboratory. The two overtime scientists had retreated into the room marked “Nursery”.

“But what it this, the flash drive, me, New Ape Idea,” said Spines. “What if that is all indeed random synchronizations? Unrelated happenings, etiologically disparate. What if we are simply paranoid?”

“Connecting the dots in front of you isn’t paranoid, Isa,” said Tak. He swung around a cubicle and activated a fluorescent desk lamp. “It’s narrative. Everybody craves a good story. We’re evolved for ‘em.”

The cubicles, like the receptionists desk, contained a large flat touch screen computer embedded into the desk. Takashi deftly found a USB jack and plugged in the drive. Isa stood around the other side of the white foam wall and observed.

“Here we go,” said Takashi. He traced his fingers across the tablet with both speed and deliberateness, like a Tibetan monk sculpting a mandala in the sand. A snort. “You’d think they’d at least password protect these consoles?”

“They didn’t?”

Tak flicked his pupils upward at Isa for a second before returning to the tablet. “I mean they did, but I’ve managed to manually reboot the processor, which should

circumvent that whole blockage.” His face briefly turned zombie-pale by the pallor of the bright white screen, before shunting back into a deep blue shadow, no less corpse-like. The workaround was assumed successful.

The far-off mezzo-soprano of an infant crying. Tak and Isa could see the door to the Nursery open, thought no bodies came in or out.

“Beautiful,” Takashi said a bit louder than Isa would’ve preferred. “Yr everywhere, Spines.” His arms marionetted around the glowing rectangle, his fingers scrolling, swiping, typing and dragging with practiced fluency. He wore a palsied smile, paralyzed with some embrained cocktail of stress norepinephrine agonists and dopamine blitzkriegs with each target data bundle he copied off the Melodica servers and into the thin black flash drive. Though most of his face was darkened by shadow, the screen cast a messianic halo over his over-dyed spikes Scandinavian blonde spikes.

“This makes sense,” said Takashi. “Melodica apparently has managed to buy out almost all companies involved with commercial microrobotics in the tens and twenties. Which is of course why such stuff isn’t available on the marketplace. We’d probably have automated cybernetic immune systems by now otherwise.”

“…”

“You don’t remember anything about the procedure, right?” said Takashi head still bowed. “Getting DUSTed?”

“I remember the procedure, yes,” said Isa. “The name DUST too I remember having special significance. Though the meaning of both has always remained opaque to me.”

“And you were never curious ‘bout that? Never did any research? I mean, this is the first time I’m hearing about it.”

“Curious, certainly,” said Isa. “Though I was hesitant in asking questions. I had always feared that the truth would be beyond my ability to articulate. An enveloping, mystical thing that could have no words put to it.”

“Courtney Christ,” said Takashi. “No need to get all, like, metaphysical or something. All I can tell you, and let me articulate this for you nice and clearly, is that Melodica has more or less had access to your body for the past fifteen years. And I don’t mean your health charts, I don’t mean your IQ scores. I mean your body. Any aspect of your physiology that can be computed, that can be signified with a number and stored, that is one this flash drive. Blood content, liver functioning, hormone levels. They even have records of activity across various neural circuits. They’ve been reading your mind, if you buy into that Reductionism shit you were spewing all last spring.”

“…”

“…”

“If Melodica could read my mind,” said Isa, “Couldn’t we assume they know I am here with you right now?”

Tak cocked his chin. “Plausible,” he said. “But too late to worry about such, ah!”

Isa approached the cubicle and leaned over the wall, the Styrofoam giving slightly under her little fingers. With great rapidity, Tak was swiping rectangular .pdfs into a blue square marked drive. “These are the only text documents,” said Tak. “The rest are data clusters I don’t have the knowhow to unzip immediately. But look at this,” Takashi tapped twice on one document and with a scissoring motion of his fingertips, expanded it to screen size. **Towards a New Paradigm of Theory of Mind and Social Delinquency**

it read. Below the headline was an abstract and several charts of data, which Isa did not have the time to read.

“Hard numbers will take time to crunch through,” said Tak. “But words on print, that shit’s platinum. I could probably write a bubble filter to comb through all of these .pdfs for info relevant to us on the boat ride home.”

“Why do you think these studies have anything to do with me?”

Something softened in Takashi’s face, though the bright digital glow shining on it had not. A montage of eye, cheek and lip muscles relaxed giving Tak a wise but resigned affect. “Yr name’s all over them Isa. I’m just skimming through, but you’ve been a subject in what looks like thousands of studies. Some are longitudinal, they may be happening right now.”

“But they can’t print my name,” said Isa, backing away from the cubicle, her speech rising in both pitch and tempo. “I thought that was illegal.”

Takashi had either refrained from manipulating the tablet, or he had automated the file-copying process while he spoke. Regardless, his hands above him, in the zone typically relegated for gestural communication. “For all institutional or public research, yes, it is illegal to print subjects’ names. I’d assume that carries to the corporate sector as well. My hypothesis is Melodica either has no intent of publishing these results or they’ve made a deal with some bureaucrats in Albany and Trenton.”

Isa closed her eyes and inhaled. It was hard to believe that tens of thousands of microscopic self-driving robots swam through her capillaries. She simmed a hellish methadone-withdrawal nightmare of mechanical spiders creeping up her innards.

A childish laugh, then a scream, then a laugh emanated from the Nursery.

Tak had resumed his maestro tabletting. He stuck out a tongue in concentration, his forehead showing veins Isa had never seen before. “Almost done,” he said. He took a second to wipe his brow with the back of his wrist. “Give me 120 seconds and I’ll have copied off every file with your name on it,” he said and winked. “In the meantime, I want you to summon an elevator and hold it open. Message Sets to call us a cab. We’re gonna wanna scoot from this building as fast as possible.”

“I can’t message anyone,” said Spine, who began towards the elevator shaft. “I lost my Eyes.”

“Then we’ll have to do it F2F and run. DLG’s gonna love that,” he said.

Isa called the elevator and it opened obediently. She stood in the portal so as to prop it open.

“Takashi,” Isa said. “Why is it that I have never seen you wearing Lazy Eyes?”

“They make me nauseous, tbh,” said Miyagi-Edelstein. “You can see I’ll engage in most contemporary wearware. But retinal interfaces give me the crawls.” Tak popped the flash drive from the tablet, and with a diagonal swipe powered the desk down. He pocketed the black thing as he walked, an eigenvalue of swagger across his vector towards Isa.

“And, to be candid, which I’m not sure is a phrase I’ve ever said before,” Takashi entered the elevator. The doors dinged closed before him and Isa. “Going without Lazies does have a set of social affordances.

“I’ve realized you can make more of a statement about yrself by refraining from a select few items o the modern era’s technofadism. It’s a strange, but pragmatic. I see hundreds of these budding cyberpunks, more through various digital interfaces. They’re

all decked out with neon Lazy Eyes, chest-piece visitats and subdermal wifi hotspots, thinking they're so hip and unique. Of course I like to be considered a member of that in-group."

"But then there's the Luddites, at their most extreme the Neo-!Kung. Not my preferred in-group; however, I can't risk getting out-grouped should I find myself in. It's game theory, Spines. Evolutionary Psychology.

"So I abstain myself from perhaps the most common mode of wearware and digital interfacing, and I can have both polar crowds consider me a member. It's how you navigate a culture essentially."

"And Doug doesn't wear them for parallel reasons," said Isa, pushing the elevator button.

"Lamarck-Ganoush is a hipster," said Takashi, "Don't think he isn't."

The elevator emitted a ding before opening, revealing Julia Sets eyes tightly closed, pinching the upper bridge of her nose. Lamarck-Ganoush had his hands folded across his chest. His thick-framed glasses, slick with facial sweat, drooped down along his face, the bulbous tip of his nose preventing them from falling off completely. He shook his head, Isa simmed disappointment.

"I'm sorry, I'm sorry, I'm sorry," said Sets. She shook her head as she spoke.

"What'd I miss?" said Tak.

"Julia ordered a cab," said Doug. "And **Futurabold** assured us transportation back once we get to the river." He turned his gaze towards Sets, "It's up to you if you'd like to accompany us."

"I'm sorry, I'm sorry, I'm so, so sorry."

"We really oughta leave," said Doug. "As soon as possible."

Tears began to bud and drip down Julia's facial pudge.

"Let me in the know," said Takashi, his volume increasing, "I really hate not being in the know!"

Doug sighed then swallowed audible. Pools of perspiration around his nipples, underarms and neck grew and began to coalesce. "To put it pithily," Lamarck-Ganoush said. "Shit's fucked."

"Shit's always been fucked DLG, where's the novelty?"

A triplet of Automobile® honks undercut Takashi. Outside the tower a yellow service car waited for them.

"I'll explain in closed quarters," said Doug. The doors opening obediently for him with little of the hassle entrance provided. Takashi and Isa exited. Doug turned towards Julia, who gave a lachrymose "No thanks," followed by a litany of "I'm so sorry, I should've said something."

Doug took the driverless driver's seat. He hooked his arm around the headrest and rotated his body to face Isa and Takashi, who sat in the row behind him. "While you were snooping in the basement," he said. "Julia informed me that Melodica has been conducting research on children and infants that at times toes the line between unethical and cruel."

"Could've guessed that from our tour of the New Jersey lab," said Takashi.

"Surely, but what surprised me was her admission that Isa has been a research subject of theirs for nearly twenty years."

"Lines up with what we found downstairs," said Tak.

“What kind of research?” said Isa.

The cab began to accelerate to its top velocity: 200 mph. Each Manhattan pothole and speed bump sent the two lighter-weight passengers bouncing off of their seats.

“Orphans, foster children, children diagnosed with mental illnesses,” said Doug, sturdy in place, “are statistically more likely to grow up to commit crime, evade taxes, be generally bad citizens. Melodica, is one of a series of government-subsidized businesses aimed at making these at-risk youths less, well, risky.”

“Sets told you this?”

“As soon as you and Isa left for downstairs she broke down. Tears and everything. I assume she was too weighted down with guilt.”

“And so we’re making lullabies why?” said Takashi. “Put kids to sleep so they won’t hold up liquor stores?”

“Not quite,” said Doug. “Remember what Mr. Halisdol told us. Melodica’s research is centered around reducing human development to a mathematical system. A healthy, productive citizen could be, in his language, a specific attractor state in a phase space.”

“But lullabies?”

“I’m getting there,” said Doug, like relax. “Apparently lullabies are an evolved predecessor to learning language. Mothers sing to their young in every culture around the world. Psychologists at Melodica suggest that it thus plays an important role in the dynamic system of development. Think about it: every infant is born a solipsist. It doesn’t see any difference between their thoughts and the world at large. When its mother sings to it, that’s the first indication that a person outside of themselves exists. Lullabies lay down the base state for communication between others to develop.”

“And language is the building blocks of the human psyche,” said Isa, tracing the outline of a royal purple Koch snowflake germinating on her wrist.

“Exactly,” said Doug slapping his headrest. “According to Julia, Melodica thinks that by engineering the perfect lullaby they can set the developmental course for these at-risk wards of the state. Make them, well, pacified.”

“Courtney Christ,” said Takashi. “And Julia knew too.”

“Well, I don’t think she realized Isa was a subject herself,” said Doug.

“But why us?” said Isa.

“Maybe by having one of their subjects producing the music,” said Tak, running a hand through his mane, “Melodica hopes to produce some weird feedback loop. Hacked orphans making music for hacked orphans. But that’s just speculation.”

“Can we pull over?” said Isa quietly.

“But Courtney Christ,” said Tak. “Mind control? Social programming? I thought the punk lifestyle would keep me *away* from this fascist bullshit.”

“Please. We need to pull over.”

“I don’t know how were supposed to get out of it too,” said Doug. “We signed a contract. Or rather, *you* signed it Takashi.”

“Like you wouldn’t have Ganoush.”

“Pull over!” said Isa, her voice stifled but shrill.

Doug depressed a button on the car’s dashboard and, with breathtaking control, the cab pulled into a shoulder lane, slowed to a complete stop and unlocked all doors and windows. Wordlessly, Isa opened her door and crept out of the vehicle. She leaned

against a guardrail and doubled over, her vomit falling hundreds of feet to the dyed-blue Hudson below.

2.7.0 Mosh III

Evan Halisdol should have never trusted those punks. They probably signed the contract with full intent of skipping out after four recording sessions. All out of some juvenile anti-corporate, anti-sellout, anti-conformist anti-anti-anti credo. Kids don't realize that there's such a thing as conforming to nonconformity. And they completely cut out all contact too. No response to email, text message, even phone calls wouldn't go through. Evan Halisdol went so far as to email their hangout, Rule something with the owner named after a typeface. Nothing in return. Silence.

Julia wasn't being too helpful either. Whenever Halisdol brought up New Ape Idea she shook her head and said it wasn't her job. Her work output was fine, nothing spectacular though (and she was hired on the premise of a constantly spectacular output). Halisdol flirted with the idea of firing her. Just to stick it to the punks so bent on sticking it to him. But he needed her; no way he could crunch all the data corporate asked of him alone.

If he fucked up this lullaby project, shit, Halisdol didn't even want to think of that. Slinking back to Mercado, head hanging low, vertebrae curved in defeat. He'd likely resume his position as a lowly tech. Trade off his premium dental plan for a stoic four-cornered workspace with eggshell colored walls and manic-depressive fluorescent lighting. And that's a best-case simulation. Together, each of Halisdol's simulations of the coming times — should he fail to sort this New Apeshit out— formed a certain eigensystem. Though their lengths differed, they all pointed in a common direction: he would be humiliated, reprimanded by his superiors, the chambers of his heart would shudder in angst with each palpitation. Not to mention he'd likely take a significant pay cut. Failure to produce the album would mean a whole downgrade in workplace ecology too. Though his coworkers were by no means friendly in New Jersey, at least he could F2F with them about the banalities of the wife and kids (Halisdol would usually bullshit, he had neither). Back in Manhattan though, folks weren't so amicable. Hell, coworkers could be so cool to each other, they didn't even deserve the sense of warmth the label "folks" implies. Zombified by the private digital universes their Lazy Eyes afforded them, they'd not even give so much as a nod to a passerby.

But how nice it was to ride in an Automobile® and be able to vent and rant and rave both "in his head", so to speak and out loud, vocal chords activated. There was a comfort in it. The steel chassis and glass provided a little bubble in which one could throw a tantrum of little consequence. Those poor drivers of yesteryear; having to devote a significant chunk of sensorimotor cognitive capacity towards steering, applying significant pressure (or lack thereof) to pedals, all in concert with other cars and drivers. Plus the small-but-pervasive threat of accident. Of crashes that destroyed property and embodied well-being. It soothed Evan Halisdol to note that, despite his absolutely fucked predicament, he could pitch a huge private fit about it in a manner not possible a mere 25 years ago. That and the hypnotic trails of sediment layers of sheetrock scrolling past out the window, the highway divider snaking along, other vehicles, the recursive, entrancing vista of the deforested Garden State.

When really royally peeved, Evan Halisdol felt more like a body than like a person. A collection of physiological states: vasovagal headache, perspiring skin, unfavorable systole/diastole ratios, gritted molars. He tried to counter this like he tried to

counter most embodied anxieties: simple number manipulation. It took less than a minute though for Evan Halisdol to realize the simple by-ones counting he'd been conducting in his head coincided perfectly with the reading of the exit numbers zooming passed as he traversed to Hoboken.

Evan Halisdol kneaded at the brim of his fedora, twisting it and maligning its creases. Shit, he thought, letting it go and seeing its crookedness. He placed it on his head and twisted a dial on the car's console. The dashboard clicked into a mirror surface. Evan Halisdol watched himself place his hat on its head. It wobbled a bit, the inner ellipse form-fitted to the contour of his head was stretched more circular in his frustration. Those fucking punks even made him ruin his lucky fedora. Halisdol switched off the mirror back to the standard window HUD. The Autonomobile® glided off Route 3 and turned southbound towards the two-lane streets of Weehawken with a sort of balletic fluidity. Halisdol supposed few human drivers could pilot a car with such liquid grace. Maybe that's the heart of the problem: you can't fucking trust humans for anything. From driving a car to recording a series of twelve four minute lullabies. Why trust them in the first place? If the human agent really was a dynamic system—the fundamental axiom underlying all of Evan Halisdol's research— then there was an inherent degree of unpredictability to them. He was a fool for assuming that the album recording progress would be a steady state affair: every week the three would show up, pitch in a solid eight hours and leave contented. He should have known any progress would be non-linear: four weeks of excellent work followed by a month of stagnancy. The only reason the sound engineer hadn't quit, Froggy or whatever he asked to be called, was the pro bono lunch spreads provided by Melodica. Well, as the other technicians in the Ontogeny lab said, TANSTAALF. There Aint No Such Thing As A Linear Function. Not when it comes to the chaotic messiness of delineating sapiens. How to explain this to Mercado, a man repulsed by even the mention 'strange attractors', let alone convince him not to feed H to the most brutal bureaucratic meat grinder Melodica NY could offer, could not be simmered.

The cab door opened below the LED Wolfram automata, Rule 30 in pink made to look like spray paint. Evan Halisdol stepped to the curb and slammed the door shut at "Thankyouforyourbusinessweknowyouhaveachoice—" Every Thursday night at 10pm the Rule 30's site said. A few gaggles of adolescents strewn about. Between them a significant amount seemed to 50% F2F and 50% hypermediate with their Lazies. Evan Halisdol himself was not so good at juggling the real, material world concomitantly with the digital. Especially if the Lazies were in private browsing mode. But the eigenvector of 12-20 y.o.'s year after year after year seems to be of increasing cyborgization. Like a toeing the line between primate F2F communication and the information blitzkrieg social media so efficiently, the line seems to turn to fractal dust. Kids these days, Evan Halisdol waxed curmudgeonly.

Inside, a large tuber of a man in a Black Flag tank sat on a folding chair behind a wooden table. He wore a medieval contraption around his and head and neck, his jaws too looked wired shut. He made eye contact with Evan Halisdol and outstretched a meaty hand, palm upwards. The man kept both his hand and his eye contact with Halisdol for several seconds before a dreadlocked hebody checked Halisdol in the shoulder.

“Don’t fucking mock you white cis ablest shit lord!” The dreadlocks brought the tip of his index to Halisdol’s clavicle. “Either pay the cover or don’t, but you don’t need to assert your privilege over those that can’t speak!”

Evan Halisdol let out an audible *ulp* and checked the rolled-ness of his shirt cuffs (they were both at elbow height) before synthesizing a verbal reply. “I’m here to see New Ape Idea,” he said.

“Well, you’re with like-minded folk,” replied the hebody, his edge softening. “But you gotta pay cover first. Look,” he tapped Halisdol on the shoulder and pointed, “You’re already holding up a line.”

“No,” said Halisdol. His fedora wobbled as he shook his head with vigor. “I need to speak with them. I am their record executive and this is urgent.”

“Oh man, we gotta label pig!” the hebody hollered. His comrades in the entrance cue aided in shoving Halisdol through the building’s open door, a panache of insults hurled at him on the way out.

Out on the humid sidewalk, Evan Halisdol contemplated activating his Lazy Eyes and placing an order for a cab back to Passaic. An interchangeable swath of youths loitered around as before, each micro-clique having a family-sort of resemblance to one another. A specific hebody appeared unique to Halisdol. A tall, Scandinavian phenotype, leaning against the brick facade of Rule 30 jotting into a real analog Moleskine. He wore a white business shirt with a black tie, an almost Mormon ensemble. For reasons etiologically undeterminable to Halisdol, Evan approached the man with a plastered on smile.

“Hi,” he said.

“Hello,” said the hebody, the smile he returned having a much more genuine affect, then returned to his jottings.

“Are you here for New Ape Idea?”

The hebody looked up. “Yeah of course. I’d assume you are too.” He wet his lips. “You’re a fresh face. Is this your first show?”

“I know them. The members. I know them all very well. But yes, I supposed it is correct to say this is my first show.”

“My name is Mickey Malloreay.” He clicked on his pen flipped to a blank page in his notebook. “Editor-in-chief of *Staph Infection*. Mind if I pick your brains in a few hours?”

Evan Halisdol gnarled up his face like, ugh. A fuzzy wash began to emanate from within the venue. “Do you know their manager? I’ve been trying to contact her for weeks.”

“**Futurabold** McRogers,” said Malloreay. “Of course I know her, her office is inside.”

“I know that,” said Halisdol. “But the bouncer at the front won’t let me in.”

“Aw, Dee’s a sweetheart,” said Malloreay. “He very rarely gives anyone trouble. Didja try making an appointment with **Futurabold**?”

“Listen,” said Halisdol. He smoothed his tie to his chest (he had not removed his tweed suit he wore to work). “I need her pretty urgently, it’s about a record deal I have with New Ape Idea.”

Malloreay stepped back, his face looked like the ventral side of a manta ray. “A label guy. Fuck! Why didn’t **Futurabold** tell me they were signed!” He wrapped his

fingers around Halisdol's bare wrists. "C'mon I'll get you to her. Fuck, I hope this hasn't broken the blogosphere yet."

Mallorey pinched his shirt and tie getup into a fake-looking leather jacket worn over a shirtless torso. His chest had an adolescent grazing of fuzz. He pulled Evan Halisdol into Rule 30, snaking past the ticket line.

"Yo! That's the fucking cheapskate from before!" hooted a queued punk.

"He's with a label," Mallorey volleyed back. This seemed to shut the other up.

The whole interior was bordering on sensory overload for Halisdol. He and Mallorey pressed themselves to the walls. Though they looked like graffiti'd cement, they were in face hi-definition plexiglass with some weird illegible animation. The room smelled on non-synth, clove tobacco and body odor from the mass of hebodies and shebodies packed together, some nodding, some standing hands across their chests in boredom, others pogoing up and down, colliding into each other. On stage four individuals (gender indeterminate) stood wearing clown makeup. A bass guitarist plucked loud, droning walls of fuzz with no coherent rhythm to it. A bebop saxophonist and drummer added to the noise. A fourth member did not appear to play an instrument, rather he stood behind a laptop computer, about 30 years old from the looks of it, and intermittently pressed keys and waved his hands in the air, likely to exhort the audience.

"Is this shit what kids really listen to?" Halisdol yelled to Mallorey over the din.

"They're called Bloody Apeshit. A lotta bands have been picking up on the whole primate motif after New Ape Idea. Obviously, no worthy imitators yet that I've seen." (Mickey Mallorey had the uncanny ability to have his voice heard over the loudest of music, while never appearing to be yelling, screaming, or otherwise distressing his vocal chords.) "I gave 'em a decent write-up their debut show. They make solid openers for New Ape Idea." He gestured towards a door, a stern-faced Neo-!Kung stood at parade-rest in front of it. "That's **Futurabold**'s office," he said.

Evan Halisdol nodded thanks and sidled towards the door. He caught the Neo-!Kung's eyes and the guard shook his head like, no way.

"I need to speak to Ms. McRogers," Halisdol cupped his hands to his mouth as he yelled.

Another head shake no.

"Maybe you know her as **Futurabold**?"

An applause from the audience as the laptop member of Bloody Apeshit took the mic. "Thanks y'all," he said (the voice indicated a hebody). "You know what's coming up." And the four descended from the stage, further crowding the audience.

"It's a matter of legality," said Halisdol.

The Neo-!Kung stepped forward as the door opened behind him. The three band members, Isa and Takashi carrying their guitars, marched out and onto the stage. Despite much yelling and hand waving, Evan Halisdol was unable to capture any attention from them. He must have blended in with the crowd's deafening cheers of adulation as New Ape Idea took the stage and plugged in.

"Thanks for coming," said Isa into the microphone. Her voice was mild and shaking a bit. She turned a few chrome knobs on her blue Jazzmaster and stomped a few pedals to life before turning to acknowledge her two other band mates. They both nodded, Doug clicked off four, and they launched into music.

Evan Halisdol had heard the bootlegs, but those tinny recordings sounded like the live band the way scrolling through a wildlife blog feels like being mauled by a grizzly. They were loud, pounding, and chaotic, sure, but Halisdol had heard plenty of loud, pounding and chaotic bands before. What was novel to him, what liquefied his bones and calcified his arteries was New Ape Idea's amniotic wash of fuzz, coupled with lyrics that sounded like a Petri-dish child of Shakespeare and GG Allin. They made Evan Halisdol want to smash some(thing/body). Or embrace the nearest shebody and weep into her breasts. Or find anything living and make love to every available orifice it afforded. Or shave his head, have the Neo-!Kung illegally ship him to that Buddhist monastery he heard about in Carmel, New York and sit in silence for the next year. Or all of the above. He felt a strange attraction to the other moshers, throwing themselves about in front of the stage. Like Halisdol's mind was just one node in a vast neural network made up by everyone in the room. Even the Neo-!Kung bouncer seemed to enjoy the music, tapping his food and nodding his head in synchrony with the snare hits.

And Isa Spines, the Subject, seemed to smile as she sang and shook her hips side to side. Most of her peers he'd heard, those wards inoculated with the DUST prototype had fallen into a deep clinical depression. Some had committed suicide. The majority of them were still wards, though in asylums rather than orphanages. But Spines was free, and exhibiting authentic joy at that. And somewhere inside Halisdol, he knew he should be feeling frustration with her. Frustration with her skipping recording sessions, frustration for her elation at playing hooky, but all he could feel was entranced by the music. Real world details became blurry and difficult to parse against the atavistic single-minded impetus to dance.

Looking left than right, Halisdol removed a pair of foam earplugs he had stowed away in his breast pocket and inserted them into his waxy canals. Rule 30 was silent but dynamic, and Evan Halisdol felt his head return at once. If he couldn't get to McRogers, perhaps he could get the band's attention.

Evan Halisdol, pressed between mosh pit and monitors, inched his way towards the center of the stage, waving his hands overhead and yelling at them. The drummer, barricaded by his massive set was invisible to Evan. Spines seemed lost in the rapture of her own vocalizing. Only the bassist, what was his name? Takashi! caught Halisdol's glance. Immediately, his expression turned from one of contended badassery to an Oh Fuck! pallor.

"I need to speak to you urgently!" Halisdol yelled. He could feel his own words humming in his skull from the earplugs.

Takashi locked eyes with Halisdol for several beats, continuing to pluck at his bass strings as he did so. He squinted a bit, then looked away, smirking as he did so.

Halisdol felt crushed by the hundred or so moshers behind him, squishing him against the stage. He felt his face redden, both out of anger and a crushing of his internal organs. One hebody behind him, decided Halisdol's shoulders afforded a good stool to see the band better and leapt onto to Halisdol's back. From his peripheral vision, Halisdol could see Takashi laugh to himself as he toppled over, only to be helped back to his feet by a few Good Samaritan hands.

"You little prick! We signed a contract! I could sue!" Halisdol screamed, he could feel his jugular pulsing out beneath his dermis. But he went unheard, either through

deliberate ignorance on the part of Takashi, or simply because Halisdol's voice was but a drop in a torrential rainfall of bombastic punk rock.

The stage was only a few feet off the ground, coming up to Halisdol's shoulders. It was largely lined with monitors, too tall for Halisdol to climb over. About a yard to his left though, Evan Halisdol espied an opening. A clearing made for a black box, wires sticking out along with two glass tubes. If he could move them out of the way, Halisdol could have a foothold to get on stage. Good luck to Miyagi-Edelstein if he tries to ignore him then.

Halisdol planted his palms on the black painted stage and pressed. A lack of muscle mass belied a sinewy strength, as Halisdol heaved his slim mass off the ground. Perhaps mistaking him for an eager crowd-surfer, two young moshers behind him grab Evan Halisdol by his glutes and heave him overhead. Halisdol watched Takashi visually track him as he rose above the masses of Rule 30; he could read the insouciance in the bassist's almond-shaped eyes.

"Letmedownletmedownletmedown!," screamed Halisdol, having never found himself supported by the collective arms and hands of teenagers and, moreso, finding the experience eliciting an acute sensation of vertigo scintillating between his ears. Rule 30 began to spin, the scrawling on the walls blending with the piping overhead. Halisdol felt like a balloon, a specifically over-inflated rubber one. The membrane between his body and the world seemed to become diffuse, Halisdol and his situatedness blending via osmosis. Whether this was sparked by the hypnotic music, or a fear of heights was indeterminate. Desperate for stability, feeling as if his body would explode or melt or both should he not immediately grasp on to something solid, Halisdol wrapped his fingers around a rusted pipe overhead. Chinning himself up, off of the joisting arms of the mosh pit, Halisdol kicked his legs back and forth. His leather shoes smashed into the faces and backs of necks of several individuals below.

Though scalding to the touch, the piping afforded Evan Halisdol some relief. He could feel the snapping of his neurons quell. His dangling feet were at about head height of the average mosher. Halisdol ran a quick simulation of swinging himself to the stage and deemed the act plausible. Praying his calculus was accurate, Evan Halisdol threw his ass back while brachiating from the pipes. Though some momentum was lost as his feet and shins collided with moshers below, Halisdol was able to throw his legs forwards swing himself monkey-like, releasing his overhand grip and flying forward.

His gymnastics were a net success: Halisdol found himself lying prone on the stage, the gizmo with the glass piping smashed beneath him. Ignorant of his lacerated torso (and reddening shirt), Halisdol rose to his feet. The music, he noted, had changed in quality. Though the band played on, the instrumentation sounded stripped apart, disconnected. Amateurish even.

"My SHANNON!" he heard Takashi scream. "YOU RUINED MY FUCKING SHANNON!" Halisdol lifted his head to see the bassist, eyes wide, nostrils flared, a wicked trickster grin pasted onto his face like now was his big fucking chance to be Sid Vicious.

Unslinging his bass guitar from his shoulders and gripping it by the neck, Takashi quickly smashed away any of Halisdol's pointy rodent facial features. The body of the Rickenbacker proved to be an excellent tool for gross amateur facial reconstruction.

Twin streams of blood gushed from Halisdol's nose, his nostrils rendered to look more like flat serpentine slits on his face than orifices on any mammalian proboscis. The blow to his face turned Halisdol 180 degrees around. Though Isa Spines and the drummer had stopped playing, the mosh pit did not seem to cease its activity.

Perhaps, Halisdol thought, moshing and full-out rioting were parallel attractor states. The presence of music in the system's phase-space being the differentiating factor.

A second Rickenbacker smash to the base of his skull knocked all thoughts of applied chaos theory out of Halisdol's meatware. As he crumpled to the floor, Halisdol saw two Neo-!Kung sprinting from their posts towards the stage. With the third blow to his face, Halisdol lost track of the hunter-gatherers as they mixed into the crowd.

"Stop it! Stop it!" shrieked Isa Spines, her face pale. Halisdol could read his own face: a mask slickened with a paella of blood, mucous, tears and other head juices in Isa's. Where Miyagi-Edelstein was performing the rule of old-school brute, Halisdol could see the recursive empathy at play within Spines. She too fell to her knees, stymied by recursive mind reading. She could sim his empathy, and she knew he knew she could sim it. And Halisdol too could sim her simming. Their shared state of knowing one another's pain in simulation proved to be a more effective numbing agent than any opiate.

From his drummer's throne Lamarck-Ganoush rose, dropping his sticks. "Takashi stop! Please!" he added to the chorus of shouts.

His face all veins, Takashi raised his guitar over his head, about to bring it down in a wood chopping stroke. As the bass descended, Evan Halisdol, on his knees, brought hands to his face in protection. Through some miracle of parasympathetic reflexes, Halisdol found himself having caught the body of the guitar and ripped it from Miyagi-Edelstein's grip.

"You little chinky-kike motherfucker," Halisdol held the bass like a sledgehammer and intended to reverse the assaulter-assaulted relationship he'd been sharing with Takashi. His swing was interrupted by Doug Lamarck-Ganoush, who threw his mass over the drum kit towards the two. Arms outstretched, he caught both Halisdol and Miyagi-Edelstein in the crook of each of his arms and the three tumbled off the stage.

The bass guitar knocked out of his grip, Evan Halisdol found himself sandwiched atop of Takashi Miyagi-Edelstein and beneath a supine Doug. He wriggled his upper-body free, Doug rolling off the two, and attempted to strike at Takashi's face. His slaps pained both parties, as the top layer of dermis had been burned off of Halisdol's hands by the venue's steam pipe.

A flurry of kicks and stomps cascaded from the moshers-turned-rioters surrounding them. Takashi's face too had turned to bloody soup, though his grin sat upon it unchanging. Despite punch after punch delivered by Halisdol, Takashi refused to relinquish his smile. It was the rapt of three gunshots that erased his Cheshire cat face. Impressions of Doug's collapsed and bullet-holed body, the smell of smoke and the parting of the crowd around the shaking Neo-!Kung were like afterthoughts to Halisdol: the last to notice that all of Rule 30 had been rendered silent aside from the wet slapping sounds of punch after punch after punch delivered to Takashi's head.

Epilogue

“To imagine a language means to imagine a form of life.”
—Ludwig Wittgenstein, *Philosophical Investigations*

“I want to be dead.”
—The Vibrators, *Stiff Little Fingers*

3.1.0—Body

In a 36-hour window between comas, Doug felt. This was to be the last time in his lifespan in which Lamarck-Ganoush would feel. Or better to say the last he'd feel that he felt something. Sure, every twelve hours between the end of the 36 hrs. of feeling, various Englewood nurses would shine a blue light into his eyes, probe at his stomach and the soles of his feet. Isa Spines, Julia Sets and Barbara Ganoush (between and within her own nursing rounds) would seat themselves by the body and vocalize at it in addition. And yes, these actions elicited activity in neurophysiologic circuits, so, in a manner of speaking, Lamarck-Ganoush "felt" them. But these specific percepts didn't amount to any sort of conscious awareness. There was no Doug, capable of, at least privately to himself in some primitive vector, experiencing himself as his own little auto(nomous/poetic) system situated in a larger ecology, and, furthermore, acknowledging that these percepts were instances of said ecology perturbing and stimulating himself qua system.

Some comatose bodies have the privilege of intermittent dreaming while down and out. This was not the case with Doug Lamarck-Ganoush. EEG technicians would observe and comment to themselves and Barbara on the neural fugue of various p-forms within the hebody's skull, but that was all sound and fury correlating to nothing. When Doug was out, he was fucking out.

Two of the bullet wounds were deemed easy enough injuries that they were removed via automated surgery. The first entered 8 cm to the left of his navel. Only skin and adipose fat were pierced thought, it was clawed out and the gap sutured in a few simple servo movements. Its cousin entered Doug 2 cm headward, though it lodged itself in some higher bodily real estate. 5.5 cm of small intestine were removed along with the silver cap. The third sat itself dangerously close to Doug's aorta, snapping two ribs along its path. A human surgeon was deemed necessary to retrieve it: a real pro from Mt. Sinai at that. But inter-state transportation and health insurance were one of the thin shreds of human actions the collective scraps of the federal government could regulate. Patient consent was necessary for the paperwork to summon a helicopter to fly Doug into New York, and it was obtained during his waking 36. But bureaucracy prevailed, and Doug passed while the required documents sat in the email inbox of an overtired intern.

Of the sensations Doug had felt while capable of really feeling in the ordinary meaning of the word, that of a white-hot-razorblade vibrating in his sternum was the most prominent.

Takashi visited Doug's body frequently. Without warning Barbara, he had broken into the Ganoush residency's garage and unearthed his van. Although he passed by many law enforcement officers as he shuttled to and from Englewood, they left him alone. If the van ever was a wanted vehicle Takashi did not know. He listened to pirated hardcore EP's dating back fifty years on his drive over to the hospital, playing them at such a volume that other motorists on the highway couldn't help but hear the fuzzy bass tones emanating from the adjacent van. When alone with the comatose hebody, Takashi sat in silence having no audience. As he drove home he'd listen to an old hip Miles Davis CD he pawned from a box in Barbara's garage. On the occasions when Tak visited Doug with Isa or Barbara he would cry with them.

Julia Sets came to the hospital twice. The first was two days after the shooting. For forty-seven minutes she sat in the provided visitor's chair at his bedside, the too-small plastic armrests pinching at her love handles. Doug had been inoculated with DNA-walking microbots, she reasoned; it was a common procedure for Intensive Care patients. The molecule-sized bots zipped along his circulatory system and printed his vitals to a screen over his head. Doug also lay with an IV drip containing a liquid the color of a well-hydrated individual's urine. That and a catheter too. Sets, chin cradled in her palms, sang a threnody of *mea culpas*, alternating with quick out-loud rationalizations of how Doug's coma was in not entirely her fault. They concluded mid another litany of "I'm sorry, I'm so so sorry," when the shebody heard Tak's nasally tenor (in conversation with a floor nurse likely) reverberating down the hall and escaped. The second visit was thirty-eight hrs. after hearing Lamarck-Ganoush had risen to consciousness, and two after his body resubmitted to comatose, endless sleep.

The aortic pain of the inoperable bullet wound initially manifested itself as a loud amniotic drone when Doug first awoke. It was early morning, and the pain sound hushed out the steps of floor nurses walking by, the beeping of the overhead display in concert with his heart rate and the monologuing of his sleepless mother, stationed at his side. His eyes remained closed; there were no observable signs for Barbara to tell he had exited the first coma.

Initially, Doug had no memory of the last show, including the riotous mosh pit, stage-climbing Mr. Halisdol or the trigger-happy Neo-!Kung. He felt half-asleep, bordering on dream territory, but somehow still lucid to his partially unconscious state.

From the pain drone he attempted to meditate, at the very least to bring himself to concrete wakefulness or lull him into a full sleep. This breed of eyes-closed supine thinking was of second nature to Doug, having practiced it almost nightly since puberty. He felt crushed by his own fatigue, a sensation that Doug tried to mentally zoom in on in hopes of letting it evaporate. "Mind over matter," as the saying went. Because if he was stuck with just matter—as Doug realized years ago—the hebody was pretty fucked.

And what a metaphor that was, "pretty fucked", Doug thought, lifting himself towards wakefulness. In trying to describe a mental state, one that he hoped was pure and transcendent from his fat and pimply corporeality, he employed two words, one aesthetic, and the other embodied. Even one of his standby idioms, "Mind over matter" employed the word "over". And how could one understand the concept of over-ness without having a body and first-hand experiencing the feelings of having a certain height. No brain-in-a-vat from countless freshman philosophy lectures could possibly understand it.

In his mind's eye, Doug contemplated further idioms:

- "Strength comes from within." (The meaning of "strength" obviously comes from having a body. Same for "within": how else could you demarcate your insides from your environment.)
- "A sound mind in a sound body." (Same issues with the words "sound", "in" and "body".)
- Even the phrase "mind's eye" itself. ("Eye" being an organ of the body, duh.)

With any metaphor that Doug could think of in his haze, he still ran up against the limits of language. And those limits seemed to be demarcated by his flesh. Though disappointing, this syllogism did serve to wake him up. He could hear the pain drone

quieting, the noise replaced by the humming fluorescents overhead, the sound of his breath, and the lachrymose voice of his mother. It was only a few seconds before the pain, having disguised itself as a noise, showed itself to Doug in its true visceral form.

Doug's eyes shot open. His mother gasped. The lights hitting his retinas stimulated his visual cortex, which was recorded by the tiny robots in his brain's capillaries and printed to screen above.

Through his barely opened eyes, encrusted with tears and dried mucous, Doug could make out the fleshy ellipse of another's face. "I feel crushed," Doug said to it, his mouth impossibly dry.

"Doug? Can you hear me?" Barbara depressed a button at his bedside, calling a doctor.

The typeface on his status screen turned from red to green, signaling a stabilized neurological milieu.

"I can," Doug said. He paused for a dry painful swallow. "I suppose." He felt as if each of his various bodily tissues—dermis, smooth muscle, bones—were all composed of sand paper of varying grades of friction.

Once the lab coat determined Lamarck-Ganoush had normal swallowing abilities, Doug was allowed several paper cupfuls of water. Barbara stayed awake with her son through the rest of the night before passing out in her chair. Takashi, bed-headed hair beginning to show dark brown at the roots, came to visit the next noon.

"Jeez, those Neo-!Kung fucked you up," said Takashi. He laughed sort of and pulled himself a stool to sit on.

"..."

"**Futurabold** sends her regards," he continued. "She's in county prison. Bunch of accessory charges. Accessory to assault for employing armed guards without a license." Takashi glanced over at Barbara. She dozed with her mouth open. "Accessory to burglary added on top of that when they found the equipment we stole. And they found pirated govware on her computer."

"..."

"I stole fine. They didn't care, though, the authorities I mean. I just offered to pay for it and somehow that was kosher.

"She's talking about joining the Neo-!Kung when she gets out, **Futurabold**, I mean."

Doug turned his head to Takashi. "Do you feel pain, Tak?"

Miyagi-Edelstein returned a shifty-eyed half smile. "Yeah, I mean of course I do."

"I'm in quite a bit of it."

Tak crossed then uncrossed his legs. "I'm sorry?"

A labored inhale from Doug. "When most people are hurt, let's say stub their toe, they'll say 'ouch' or something." Doug spoke slowly, an interaction effect of his own pain and a deep-seated resentment for Tak. "I've become convinced that you're an anomaly. You'll say 'ouch' but you won't feel it. You'll say 'ouch' because you know that's what people want you to do."

Tak's eyes widened. His pupils saccaded about; he didn't seem to be looking at anything in particular. "I don't know what yr saying."

"At a loss for words?"

Takashi nodded, his nostrils flared.

“Just say something sincere, Tak.”

“...”

“...”

“I feel I should go, Doug,” said Tak. “Get better soon, I’ll be in tomorrow.”

The sound of exiting the room awoke Barbara Ganoush.

“Who was that?” she said, rubbing sleep from her tear ducts.

“An old friend,” Doug replied.

“How sweet,” said Barbara. “I remember at your age I broke my leg and was hospitalized. Nobody visited. I got thousands of ‘Get Well Soon’ messages on my Facebook though.”

“I’m off of social networks,” said Doug. “I wish I wasn’t though, sometimes. I could use less F2Fing with certain individuals.”

While he was awake, Barbara winced and grimaced and clutched her fists in synchrony with her son. The mimicry, likely unconscious on her part, did not go unnoticed by Doug. Mother-child empathy being among the strongest, least solipsistic relations two bodies can appreciate. That twenty-five years prior they were not two, but one shared body. (Though modern physiology considers the umbilicus an extension of the fetus, this is more a linguistic convenience rather than a reflection of a matter of fact; the two arteries and one vein running through the cord join the circulatory systems of both humans.) Knowing that one’s pain is not private but shared can be an extremely potent analgesic, Doug found. But the painkilling effects of solidarity brought with it the side effect of a festering guilt that you were somehow subjecting another to your own suffering.

Doug attempted to mind-read Barbara. How much did she know of the preceding narrative to his hospitalization? He’d kept her largely in the dark with regards to his recent musical endeavors. It wouldn’t even be that surprising if she had never noticed Takashi’s boxy blue van parked in the garage through the spring and summer months. Alongside the shared paroxysms of hurt he could read on her face, Doug could also make out an innocent, unknowing affect. That she could know his discomfort, though never having experienced a 50 AE lodged near her aorta herself, but she kept herself ignorant of the situations out of which the shooting emerged. A feeling, however visceral, in manageable, Doug thought, his eyelids growing heavy. A narrative though, especially a true one, can rip the psyche asunder along a vector completely orthogonal to anything bodily harm could elicit.

Within a few minutes Doug fell into a non-comatose, dream-filled sleep. Barbara hung nameless lullabies she had sung for him as an infant. How he’d wriggle his limbs about to the music in a slow but spastic proto-dance, training up neural bodily schemas that would later enable him to crawl then walk then clap then drum. Hers was the first human voice he’d heard: the needle that popped the ballooning membrane of infant solipsism.

When Doug awoke, his mother was absent; she probably had to resume her rounds. His own throbs of hot spiked discomfort dulled in his recursive acknowledgment of the dull insomniac aches she must feel percolating in her skull after days on end without any legitimate restful sleep. In his mother’s place he found Isa Spines. She sat with her back erect, her face displaying a sober affect.

“You are conscious?” she asked.

Doug nodded as best he could. He noticed a second IV drip had been inserted into the soft of his wrist. He followed her gaze to the screen above him displaying his vitals.

“They’ve inoculated me too,” Doug said. He lifted his head slightly from the pillow as he spoke, his unwashed hair was matted to the back of his skull.

“Don’t fall down that rabbit hole,” said Isa. “Thinking that every aspect of your body can be assigned a number, that you’re a walking set of computations and truth tables.”

Doug coughed and winced at the sharp stinging it aroused. “I’m not too worried about that,” he said. “I have my own ruminations to keep myself busy.”

“Yes, that’s what it is.”

“What?”

“Keeping yourself busy,” said Isa. She nodded. Watching Doug, she could feel empathetic pulses of his hurt within her. Spines allowed herself a slow luxurious blink. Her visual field darkened, the visceral simulated paroxysms dimmed in intensity.

“I don’t follow.”

Isa reopened her eyes. She leaned back into her chair and pursed her lips. “I used to have a lot of faith in introspection. That all my anxieties could be resolved if I was able to look deep enough within myself. That somewhere between my ears lay a pure source of truth I could tap into. I found though that the further I allowed myself to turn inward the more difficult it became to engage with the world outside. Words felt meaningless; I grew inarticulate, afraid of talking to others. Now though, I’m starting to recognize that what I once thought were the gravest of philosophical problems were merely illusions I created. Maybe that’s what you need to do, create your own quandaries to busy yourself solving. The world is a dynamic mess of jiggling things, but the universe within can be a structured and orderly as you like.”

“I wish that was me,” said Doug. “I wish I was so good at turning inward and away from the world that it became a problem.” He ran his hands across his belly, lightly fingering the staples holding his wounds shut from over his paper hospital gown. “My reality is at best uninteresting, though usually cruel and morbid.” He turned his head away from Isa, looking up at the fluorescents overhead. “And don’t give me the whole spiel on having a bad attitude. I’ve said that to myself enough.”

“I’ve never been the type for spiels.”

“Yeah, I suppose you haven’t.”

For a brief moment, a closed-mouth smile showed itself on Isa’s face and quickly neutralized.

“They’ll probably sue us when I’m out of here,” said Doug. “Melodica, I mean. If nothing else because we didn’t honor their recording contract.”

“They’ve been an invisible hand guiding my life thus far,” said Isa. “At least litigation is relatively visible. For me, that would be a change for the better.” Another smile, this one toothy and longer lasting. Doug met it with a puzzled curl of the eyebrows.

“I apologize,” said Isa. “I’m not good at making jokes.”

“It was a good effort,” said Doug.

“...”

“...”

“...”

“...”

“That was a joke too,” said Doug. “I guess I can’t say I’m any better.” He winced. “Whatever morphine drip they have me on is fucking with my words.”

“I’m tempted to say fucking with words is the essence of being human,” said Isa. “But that sounds a bit reductive.”

At that Doug let out a brief spastic chortle.

“That, though was not intended to be humorous,” the shebody replied.

He exhaled. “You know, I’ve spent so much time religiously holding on to the belief that there was some aspect of myself independent of, well, this.” Doug ran a hand down his torso. “I’m now starting to find though that all of the words are used are tied to my body. Even if there was some peace of an immaterial soul connected to my pineal gland, I don’t even know how I would be able to talk about it.”

“Explain further please.”

Lamarck-Ganoush’s speech was slow and belabored. “I’m exhausted, I can’t claim to make an in-depth philosophical argument. But say the doctor comes in now and tells me recovery will take a long time. Just that phrase ‘long time’, specifically ‘long’, I feel like that’s routed in having body parts that extend and contract. That’s the primary example of length any of us come across. The rest is just metaphor.” He closed his eyes. “And that can apply to any word really. ‘Heavy’, ‘hard’, ‘soft’, ‘fast’, ‘slow’. The limits of language lie in the body. Which means that there is really nothing worth talking about, when you have an anatomy like mine.”

“You don’t get to the limits of language,” said Isa. “New ways expressing oneself are always frothing up. Don’t take that for granted.”

“…”

“…”

“I think I’ve found it,” Doug rasped.

“What?” Isa asked, her innards tightened in simulations of Doug.

“The outer borders of all human expression. The pith of meaning-making. The Ur-truth.”

“May I ask?”

“Banana,” said Doug who laughed then coughed then winced. “As sung by you.” He smiled along both forced and earnest vectors.

Isa swallowed. “I don’t think I can sing anymore,” she said. “What do you think?”

But Doug had passed out again, exhausted by his monologue.

Isa lifted herself out of the chair. The visitats on her arms were an explosion of fractals, a chaotic pattern she had never seen before. She squinted her eyes: an old reflex from when she wore her Lazies. If she’d ever found them in **Futurabold**’s desk drawer, she’d have foreseen the traffic jam awaiting her on the Parkway; a rare occurrence for roads dominated by self-driving vehicles. She could hear Doug snoring lightly. He looked like an overgrown longhaired toddler in the hospital bed. “See you tomorrow,” the shebody said.

Appendix

The previous narrative you have just completed is fictional. However, the scientific and philosophical basis for *New Ape Idea* is entirely and wholly non-fictional, empirically validated and—ontologically speaking—seductively real. I call these “hard” elements of *New Ape Idea* “seductive” because I was able to weave them into a long-ish novel-length story that you (hopefully) found compelling enough to read start to finish. Narratives are seductive because their readers are human. In the following I will argue, among other things, that *Homo sapiens* have had a long-standing evolved love affair with stories. Narrative forms of communication were integral to our speciation over tens of thousands of years, and they remain fundamental to the healthy development of every individual mind.

I found it appropriately enough to explore the significance of narrative in story form. *New Ape Idea* is intended to qualify as a Senior Thesis in both the Cognitive Science and English majors at Vassar College. The following Appendix I deemed necessary to bridge this gap between the two fields. I will attempt to explicate the Cognitive Science around which *New Ape Idea* is scaffolded. If you are a humanities specialist, consider this a brief lesson in applied science or the literary equivalent of a “Behind the Scenes” feature at the end of a movie. If you are a scientist, congratulations on finishing a novel! It takes real chutzpah to step outside of your comfort zone like that.

I do not intend this Appendix to serve as a Spark-Notes-esque guide to my novel. It is not meant to be a guide as to what the text “means”. (I should hope you read *New Ape Idea* in a digested enough manner to have formed some idea of the narrative’s “meaning” for yourself.) Furthermore, I have read enough New Criticism to avoid the glib overstatement that my authorial intention is the sole fountain of meaning within the text. Needless to say, *New Ape Idea* is littered with various scientific footholds around which to base your own interpretation; in this way I designed it to be a Nabakovian puzzle of sorts. While I on occasion reference the novel in the Appendix, the following pages are an explication of the Cognitive Science that has inspired *New Ape Idea* (rather than an explication of the novel itself), as well as an investigation into the communicative acts that have made and continue to make us human.

The Aesthetic Science, or, How I Learned to Stop Worrying and Love Science Fiction

The Fiction of Science

Since the time of Descartes, various thinkers have run up against the so-called “Hard Problem of Consciousness”. The term, coined by philosopher David Chalmers (1995), is the currently unanswered question of why conscious experience “emerges”. Advancements in the mind sciences over the past centuries have unraveled many mechanical elements of the mind. We now know various neural and physiological correlated of conscious experience, consciousness’ when and where if you will. Chalmers argues however that these are mere “easy problems”; they do much descriptive work but little more. The notion of how and why we as human agents *feel* like we have minds has made little progress since first articulated by Descartes.

Philosopher Alva Noe (2012) contends that our inability to solve the “Hard Problem” is, at least partially, routed in our language. He astutely recognizes that the majority of Western philosophy of mind—from high-level academic psychology to folk theories of mind—tends to treat consciousness as a noun. That is, we consciousness is a tangible “thing” that “happens inside us”. Descartes believed consciousness *happens* in the immaterial realm of the soul, while modern neuro-reductionists are likely to argue that it *happens* within the activation of neural circuits in the brain. In *Varieties of Presence*, Noe suggests that perhaps we are looking for the roots of experience (what he calls “presence to mind”) in the wrong place. Or rather, we are approaching the problems of consciousness with inappropriate syntax. Instead of treating conscious “presence”—what experiences are present to the mind and phenomenologically felt at any given moment— as a noun, we may find it fruitful to treat it as a verb. Consciousness is not a thing, it a doing. It is a skillful interaction enacted and achieved between the embodied agent and its external ecology.

A common metaphor Noe employs in his writing is that of consciousness as a sort of dance. Just as a dance does not happen within a body, it is achieved through an active engagement with ones surroundings, so to does consciousness. Rather than *feeling* something in our head, we *perform* consciousness in the world. Just as one cannot dance without a stage, aspects of our ecology, including other agents and our surrounding environment, afford us conscious access. Readers familiar with ecological psychology will find that this is not a new way of thinking about the mind; however, Noe’s blending such theory with facets of our phenomenology and ordinary language use are tantamount to moving forward in tackling hard problems effectively.

Right now you see these words across the page. You are able to fluently and skillfully access their meaning without too much work. Modern neuroscience may allow you to understand the mechanics of your seeing; however, no modern iteration of cognitive science will allow you to see how you are seeing, so to speak. Should we buy into Noe’s metaphor that consciousness is a dance, we must be willing to treat consciousness as a dance. That is to say, we must be willing to treat conscious presence as an *aesthetic* phenomenon with mechanical components, rather than a purely mechanical series of happenings. There is a difference between physiologists and choreographers. Podiatrists are experts of the engineering of the foot and leg. Choreographers show us how the foot and leg can be used in *meaningful performance*.

This difference is one of description versus enaction—or “saying” versus “showing” in the language-game of Wittgenstein. In creating a dance, choreographers show us the capabilities of our bodies alongside an aesthetic experience. In Noe’s terms, choreographers enable us to perform phenomenological investigation.

The project of Cognitive Science has historically been to create an interdisciplinary account of the mind. Because consciousness is indeed an aesthetic, enacted phenomenon, Cognitive Science will thus be a failure unless it is willing to incorporate the aesthetic research practices art affords us into its paradigm of the mind. The chasm between the so-called humanities and hard sciences will have to be bridged, lest we only wish to solve “easy problems”. Cognitive Science is currently endowed with a large amount of expert and brilliant podiatrists. We have a dearth of choreographers, and are thus limiting our breadth of explanation.

The Science of Fiction

In penning *New Ape Idea* I hope to have played my part in building the aforementioned bridge. Reading a novel is of course an aesthetic experience. Fans of literature will often remark that good literature gives one insight into whatever “the human condition” is supposed to refer to, or, in Noe’s terms, allows one to conduct “phenomenological investigation”. I intended to scaffold my narrative across many sub-fields of Cognitive Science, including findings in Dynamic Systems Theory, Evolutionary and Developmental Psychology and Ordinary Language Philosophy. I liken this to the practices of a neuro-phenomenologist who attempts to line up findings in neuroscience with felt experience. *New Ape Idea* is thus, by definition, a work of science fiction. Although I by no means claim to have solved any of consciousness’ “hard problems”, I do believe my craft should and must play a role in modern Cognitive Science.

Obviously, a verbal narrative is a human act of communication. Characters within the story may converse between themselves, and the narrative as a whole may be viewed as an authorial attempt to engage the reader or critic in conversation. As stated, one of my goals in creating *New Ape Idea* is to create an aesthetic experience around which cognitive scientists alongside literary critics may scaffold an inter-disciplinary investigation. The sci-fi genre affords certain benefits to both the casual reader and the aesthetic investigator. Mikhail Bakhtin (1986) theorized that fluent linguistic communication of any form required knowledge of a several language domains on the part of the interlocutors. Just as speaking a language requires some mastery of vocabulary, syntax and grammar; Bakhtin also asserts that knowledge of “speech genres” is imperative for successful communication as well. Genres of discourse, he contends, serve to “crystallize” common elements into “congealed events” which serve as the backdrop over which the communication occurs. These “congealed events” may be read as genre-specific tropes (e.g. futurologist speculation, human-technology interaction and a degree of campiness in America science fiction). Genres, in speech or literature, serve as a common ground, which allow participants to zoom in on what is really new. Bakhtin and Medvedev (1991) contend that, “New forms of representation force us to see new aspects of visible reality”. Genres are not set prescribed forms, but rather narrative guidelines the author may incorporate into his text. Just as genre tropes may contour the shape of the narrative, the author must also negotiate novel elements of his text against

these constraints. In *Orality and Literacy*, Walter Ong (2002) argues that this working with and against formal (and genre) constraints has been an essential aspect of creativity throughout the history of human literature. Just as genre tropes may serve as narrative guideposts from which the author may scaffold into new creative territory, they also—as Bakhtin and Medvedev note—afford the reader the chance to perceive the text’s novel aspects. For a science-minded reader, the hard science elements of a sci-fi text will feel familiar if not quotidian. She will thus be allowed to dedicate more energy towards analyzing the literary ambitions of the narrative. Likewise, the literature scholar may find a piece of science fiction rather conventional in terms of plotting and character development; however, the incorporation of hard scientific theory may provide interesting thought-candy for him to chew on. Thus, the science-fiction narrative may provide the perfect medium to encourage dialogue between investigators of differing disciplines, otherwise known as *genre geeks*. My characters and plot devices are, at best, clumsy pastiches of tropes stolen from works along both literary and genre-pulp vectors.

Isa Spines and Ruthie **Futurabold** McRogers were inspired by the heroines of 1980’s and 90’s Queerpunk fiction (yes, that’s a real subgenre). Isa was initially intended to be something of a cross between the solipsistic heroine of David Markson’s *Wittgenstein’s Mistress* and the lone-wolf hacker type pinched Melissa Scott’s *Trouble and Her Friends*; Futurabold a sort of cross between one of the shaved-headed radfems of Lizzie Borden’s 1983 *Born in Flames* and Pat Cadigan’s *Synners*. Much of *New Ape Idea* was mapped out during the summer of 2012 when I found myself on a big cyberpunk kick (don’t ask). *New Ape Idea*’s whole third-Act shtick of playing some weirdly hypnotic and maternal primal trance language is transcribed from Neal Stephenson’s *Snow Crash*. Doug Lamarck-Ganoush has the Cartesian woes of several David Foster Wallace characters, and I’m worried his mother’s name might scream “Look at me! I read Pynchon!” a bit too loud. Hell, this whole Appendix-length explication of what I wrote was justified in light of Peter Watt’s exquisite *Blindsight*. Additionally, I would advise anyone who did not catch the various Heinlein references peppered through the novel to get their vision checked.

I have also attempted to reach across the aisle and ingratiate my work to those Vassar College English Major types who largely geek out over *The New Yorker* style literary fiction. I use the good old post-post-modern technique of generating narrative momentum through temporal fragmentation for about the first two-thirds of the novel, (see Egan’s *A Visit from the Goon Squad*, Mitchell’s *Cloud Atlas* for examples of what I mean). It goes without saying that my writing a lengthy novel inspired by the philosophy of Wittgenstein for a senior thesis is hardly original in itself; David Foster Wallace did that exactly almost 30 years ago with his novel *The Broom of the System*, which he drafted while an undergraduate at Amherst.

In short, I was deliberate in creating a work of literary science fiction for my thesis in the genre’s tropes facilitate an aesthetic experience that readers with proclivities towards different genres and disciplines will find meaningful. Creating such an experience through a different genre (e.g., fantasy, mystery, erotica, literary fiction), while not impossible, I deemed too difficult a project for an amateur novelist such as myself to undertake. That is not to say other literary/speech genres are useless to the bookworm Cognitive Scientist. Rather, an examination of the human proclivity towards narratives of any genre and form may prove invaluable in understanding the evolutionary,

ontogenic, and cognitive sub-systems underlying human communication and thought. At a cursory glance, it is not necessarily obvious how one may use narrative to reverse-engineer human cognition. Such a feat requires a careful investigation into the roots of human language and interaction.

Wittgenstein's (Eye/I)

Truths in Solipsism

During the past century, Western philosophy has seen a paradigmatic shift in its scope and methodologies. Where philosophers of yore once focused on the dynamics of history, ethics and metaphysics, the English Analytic tradition and American Pragmatic schools elicited a *linguistic turn* in philosophy's trajectory. Issues of logic, language and mind were deemed more fundamental to analyses of class struggle or dialectical accounts of morality. This *linguistic turn*, as you may have already guessed, is of tantamount importance to the plot and characters within *New Ape Idea*, a narrative largely driven by the dual robustness and delicacies of human communication.

In the *Tractatus Logico-Philosophicus*, Ludwig Wittgenstein (2001) attempts to delineate the relations between symbolic logic and the capacities of human language. He begins the *Tractatus* stating, "The world is all that is the case" and "The world is a totality of facts, not of things". Wittgenstein's cosmos is a collection of facts. These facts are atomic, and they exist in complete separation from one another. We ascertain meaning from these facts by picturing them. These pictures are in essence mental models of reality and are made up of contingent elements that represent Fregean objects. These elements that pictures are composed of related to each other in a logically "determinate way" that mimics the way facts relate to each other to make up the world. This similarity between pictures and facts is a picture's "pictorial form". It is possible that pictures may in no way refer to a facts; however, these pictures would thereby be "false" as they would not "La[y] against reality like a measure". We therefore may assume that there is some commonality, some resemblance however tangential, between a fact and its picture. Thus, pictures and facts must have some sort of formal isometry to have any meaning. Consider a picture of a sunset: for Wittgenstein, the colors of the sky must in some way resemble a color fact, while the shape of the clouds and the sun sinking behind the horizon must hold true to some spatial facts. Because pictures come from facts so to speak, they cannot be true *a priori*. Pictures are chained to facts logically, and "a logical picture of facts is a thought". By Wittgenstein's logic, a very careful hierarchy of facts and pictures can be created. The world is a totality of facts, and we make pictures alongside these facts. These pictures, if they are to have any meaning, resemble the facts of the world and have a logical structure. These pictures, when they relate to each other in a logical way, make up thoughts, which in sum fill the mind.

Truth is derived from the resemblance between a meaningful picture and a fact. While pictures may resemble facts to varying degree, facts resemble themselves perfectly. Facts, in resembling themselves perfectly, are "about" themselves. Facts are tautologies; as Wittgenstein says, they fall under the propositional category of "*sinnlos*" (the meaningless). Because pictures resemble facts and gain their meaning from such a correspondence, facts gain their tautological meaning in correspondence with themselves. The "aboutness" of facts comes from within themselves; it is self-oriented. The aboutness of pictures on the other hand, comes from their relationship to facts. It is other-oriented. This dualism of meaning falls in line with Wittgenstein's famous "Show/Say Distinction". He states, "What can be shown cannot be said". To the young Wittgenstein, the meaning of facts is apparent within the facts themselves, it therefore is "shown" to us. The meaning of pictures comes from outside themselves, this meaning is representational

or descriptive and is therefore “said”. These two expressions of meaning by their very nature may not overlap.

Facts, as we learned earlier, serve as the building blocks of both the world and the mind’s thoughts according to the *Tractatus*. These facts show themselves to us, and because they are made apparent through showing, we may not speak of them. Wittgenstein writes that because the world is shown, “The world and life are one” and “I am my world (the microcosm)”. The reality of the world is shown as the reality of the individual I. Wittgenstein compares the metaphysical I in its reality to the eye and its visual field. The eye cannot see itself, nor can it isolate itself from the world it views. Similarly, everything it sees is other than itself. Likewise, we cannot describe ourselves; however, we use pictures to attempt to describe everything around us. Just as the eye cannot see outside its own visual field, we cannot describe what our picture language does not let us say. Language, for the early Wittgenstein, is entirely personal. He notes, “The limits of my language means the limits of my world”. To Wittgenstein, solipsism has an enormous amount of logical and linguistic truth, it “coincides with pure realism”. The mind and the world are united. They are together made up of facts that show themselves to us, and the logical schemata of our language delineate the limits of both our mind and our world. Just as the eye is not apparent in the visual field, the metaphysical subject does not appear in the world. We are left with a personal language, which by its very virtue of being a descriptive medium rather than a “showing” one, cannot allow us to break outside our solipsistic reality of fact-pictures.

Astute readers will recognize that this language-based solipsism is one of the main character traits of the novel’s heroine Isa Spines. Isa’s character, for the majority of the novel, is tormented by the paradox that she is unable to articulate how certain facts about her world show themselves, she can only approximate them through language. At the end of the *Tractatus*, Wittgenstein equivocates this paradox of “showing through saying” to the climbing up a ladder and kicking out the bottom upon reaching the top. This paradox, it seems, is a manifestation of his show/say distinction: Isa cannot articulate how the world shows itself to her. Wittgenstein too concedes that the true nature of our world, the world of facts, lie beyond language. By their nature as facts, we may not speak of them. As Wittgenstein suggests, “What we cannot speak about we must pass over in silence”, an ethic that is championed by the tacit, solipsistic Isa.

This *Tractarian* account of solipsism, I argue, has proliferated contemporary American culture, largely through the medium of social networking technologies. Psychologist Sherry Turkle (2011), contends that despite the myriad possibilities for communication social networking affords us, modern humans have grown more cold and solipsistic in their relations with one another. Face to face interaction(or “F2F” as it is referred to in the novel) has been the primary evolved modality of human interface throughout our history. Social technologies, from Facebook to Twitter, remove this critical F2F component. Communication is flattened to fit our two-dimensional screens. I contend that Wittgenstein’s picture theory of meaning is subtly spread through 21st century forms of interaction. Networkers find themselves awash in a sea of tweets, status updates and text messages, the majority of which are content-less dithering. As Turkle notes, the boundary between intra and inter-personal communication is blurred on the internet. Does one tweet a picture of their recent vacation on a cruise ship to inform her friends of her travels, or rather does she do so to feed a narcissistic urge to think of

herself as worldly and of a certain socioeconomic class? Through the expansion of social networking, we do not gain better access to other's lives. Rather our own private experience is expanded to incorporate the tweets, blog posts and Facebook photos of others. It is a further solipsistic unification of the world and the individual's mind.

Turkle's techno-solipsism is a major underlying theme in "New Ape Idea". Schoolchildren are given Smartphones and ordered to create social networking accounts by kindergarten. "Lazy Eyes", contact lenses that give one access to the internet, are a common fashion accessory. This is a typical cyberpunk trope: the boundaries between the digital and analog worlds are fused. Hyperconnectivity has a narcotic effect on the novel's characters. Upon losing her Lazy Eyes, Isa nearly has a nervous breakdown, speaking to Turkle's notion of addictive anxiety in hyperconnection. It is only through losing her Lazy Eyes that Isa is able to break out of solipsism, her engagement with the dynamics of the mosh pit in front of her force her to recognize the validity of other minds and embrace a more naturalistic, F2F mode of communication.

Chess with Augustine

Wittgenstein's earlier philosophy as espoused in the *Tractatus* may be read as the ideological predecessor to the Classical Cognitivist paradigm, popular amongst the first generation of Cognitive Scientists in the mid-20th century. In short, the Classical Cognitivist paradigm asserts that what may be called knowledge or intelligence is a composite of logical syntax rules operating over arbitrary symbols. Thought is language-like, as Wittgenstein asserts in the *Tractatus*. Knowledge structures—what Wittgenstein calls "pictures"—are either *had* or *not had* by an agent. They are modular, functionally specific and independent of the agent's ontogenetic or environmental context. For example, an agent that has learned bipedal locomotion on a carpeted floor has thus learned how to *walk* irrespective of any situated context. By Classical Cognitivist dogma, the proper execution of skills is predicated by an internalized knowledge structure of said behavior. Clark, Trully and Phillips (1990) note, "The neuromuscular system never in the same state nor is the environment within which the movement is made ever the same. Yet picking up a coffee cup is a rather simple act that is reliably performed several times per day." Thus, to best study an agent's cognition or behavior the Classical Cognitivist may argue that one is to parse out the global order of a behavior, (the similarity between the cup reaches in the aforementioned example), from its local variability, (the differing contexts each reach may take place in), so as to find its underlying knowledge structure (Fodor, 1983). In the past decades, Classical Cognitivism has garnered much criticism. Goldfield (1993) characterizes these classical views as "air theories" due to the fact that they incorporate mental schemas for motor acts that would exist even if the agent were "suspended in air and had no surfaces on which to act". That is to say, both Classical Cognitivism and *Tractarian* philosophy treat mind, logic and language without paying due attention to the agent's ecological, developmental or cultural contexts.

In his later years, Ludwig Wittgenstein began his *Philosophical Investigations* (1958) in which he attempts to critique his earlier philosophy as espoused in the *Tractatus*. In the Preface to *Philosophical Investigations*, Wittgenstein writes that his later compilation of thoughts may be best comprehended in relation to the *Tractatus*. He thus structures His *Philosophical Investigations* as a sort of conversation between two interlocutors: one who has "climbed the Tractarian ladder" so to speak and wishes to

explore metaphysical questions, versus another who wishes to dissect his partner's claims and show his failure to give meaning to what he says. Stanley Cavell (1978) nicknames these two distinct voices "the voice of temptation" and "the voice of correctness". Cavell's "voice of temptation" is inclined towards the logic-based solipsism of the *Tractarian* Wittgenstein. Conversely, the "voice of correctness", perhaps the voice of the later Wittgenstein, focuses on constant progress and movement towards infinitely varying complexity in forms of human communication.

Language, the first major focal point of the *Investigations*, exhibits this infinitude through its lack of uniformity. As Wittgenstein shows us in the *Tractatus*, picturing facts allow us to describe our world and imbue these descriptions with meaning. He begins the *Investigations* with an excerpt from Augustine's *Confessions* that describes a child's acquisition of language. The child learns through observing adults create language signs by vocalizing words while they gesturing towards the specific objects their words refer to. Wittgenstein critiques Augustine's writing saying, "In this picture of language we find the roots of the following idea: every word has a meaning". This 1:1 signifier-signified ratio is problematic for the later Wittgenstein. He posits that Augustine posits a fine system for *specific communication*; however, he notes, "Not everything that we call language is this system". He urges us to think of language as more than simple words (pairs of object and meaning) organized by a single, strict set of rules. To demonstrate this, Wittgenstein asks us to imagine two quarrymen: one who calls out a cut of stone – "slab!" or "pillar!"- for the other worker to bring to him. Wittgenstein says we may, "Conceive of [this activity] as a complete primitive language". One worker names objects for the other, much like the adult tutors the child in Augustine's thought experiment. The two workers operate under fixed rules and use a stagnant lexicon, no rule exists should one man decide to yell "Pancakes!" or the other "These slabs are too heavy!" Even in a primitive language such as this, rules cannot prescribe every single linguistic scenario.

Wittgenstein further plays with the necessity of rules while meditating on a few children playing ball games in a field.

"We can easily imagine people amusing themselves in a field by playing with a ball like this: starting various existing games, but playing several without finishing them, and in between throwing the ball aimlessly into the air, chasing on another with the ball...and so on. And now someone says: The whole time they are playing a ball-game and therefore are following definite rules at every throw. And is there not also the case where we play, and make up the rules as we go along? And even where we alter them – as we go along."

Wittgenstein's children constantly follow rules as they play their game; however, the set of rules they follow is amorphous and constantly changing. Unlike the stonecutters who are unable to continue their language when they run into a scenario undetermined by rules, the children are able to continue with their ball games by inventing new rules as they go along. Their game and the rules they follow are in a constant state of evolution and flux. One minute they may play catch, then tag, then a combination of the two. (Readers may notice that these games, from the children playing outside Doug's garage in the first chapter, to the dynamics of the mosh pits at Rule 30, are a recurring motif throughout "New Ape Idea".)

Our language, Wittgenstein insists, is not unlike the children's ball games. When we use language, we play a countless diversity of different games, each with their own rules and meanings. These games pop in and out of use, just like the different styles of catch and tag played by the children. Wittgenstein coins the term "language-game" to similarly "emphasize the fact that the *speaking* of language is part of an activity, or a form of life." His list of language-games ranges from "Giving orders and acting on them" to "Cracking a joke". These games all relate to each other, yet the ways they relate to each other are not fixed; there is no single logical essence that runs through all of them. Wittgenstein explores this flexible affinity between language-games by once again comparing them to "activities" such as "board-games, card-games, athletic-games and so on". Take, for example, the games of chess, rugby and high-stakes Texas Hold 'Em. No intrinsic aspect exists between these games that both denotes them as "games" and everything else as "not games". Rugby is athletic and requires a ball, while chess and poker are sedentary. Chess and rugby may be played for leisure or recreation; however, few high-stakes poker players feel at ease whilst gambling their fortunes on cards. Like the rules of the children's ball games, the similarities between these games "crop up and disappear." Yet Wittgenstein notes, "We see a complicated network of similarities overlapping and criss-crossing; similarities in the large and small". Language-games, like these games, relate to each other in such a manner—their similarities "overlap and criss-cross in the same way". The shared properties of language-games are non-essential and usage-based. Wittgenstein calls this shared similarity a sort of "family resemblance". Just as the members of a family may look the same, the shared traits do not fall along specific rules—a father's brown eyes may not be shared with his wife, but one of his children may have them too.

Wittgenstein's language-games are a way of critiquing a logic-based approach to language and mind without falling into the trappings of solipsism of Classical Cognitivism. His *Philosophical Investigations* is both an addendum and a reframing of his concept of rules presented in the *Tractatus*. Just as our efforts at explaining a game plunges into pluralism, any attempt to state an overarching language rule falls to multiple interpretations. Rules, like the meanings of words, are constantly vacillating. Rules by themselves are ineffective at describing the whole of a language game. Wittgenstein writes, "The use of the word is unregulated—the game we play with it is unregulated—It is not everywhere bounded by rules; but no more are there any rules for how high one may throw the ball in tennis....yet tennis is a game and has rules too". Any system of communication it seems is not something we may easily remove ourselves from and study. It is a constant game we must play, and although we follow its rules, we are unable to find any logical essences behind them.

False Truths in Solipsism

Delineating the course of Wittgenstein's influence is difficult. Like a stone dropped in a pool, he has caused ripples and waves to spread out in all directions, from Jerry Fodor who used the *Tractatus* to defend his assertion that all thought has an innately syntactic structure, to Paul Grice who uses the *Philosophical Investigations* as a stepping-stone to his pragmatic philosophy. Wittgenstein shares many of the same interests as the Cognitive Scientist including language use, face recognition, consciousness, rule following and categorization. Philosopher Diane Proudfoot notes that

Wittgenstein has “impeccable credentials from the viewpoint of a philosopher cognitive scientist (1998).” Although his earlier philosophy lends itself quite well to the “symbols and rules” account of thought favored by cognitive scientists such as Jerry Fodor, Wittgenstein’s Tractarian advocacy of solipsism and cognitive relativism seem to negate the entire enterprise of scientifically studying the mind.

In his famous “Private Language Argument” Wittgenstein creates a web of analyses directed against the thesis that an individual may have their own internal language by associating words with his or her own private experiences. Wittgenstein zeros in on the grammar and semantics of “descriptive” phrases—phrases such as “I am in pain!” or “I am starving!” that denote a strictly subjective, internal feeling—for the crux of his attack on solipsism He writes,

“How do words *refer* to sensations? — There doesn’t seem to be any problem here; don’t we talk about sensations every day, and name them? But how is the connection between the name and the thing named set up? The question is the same as: How does a human being learn the meaning and names of sensations? For example, of the word ‘pain’. Here is one possibility: words are connected with the primitive, natural expressions of sensation and used in their place. A child has hurt himself and he cries; then adults talk to him and teach him exclamations and, later, sentences. They teach the child new pain behavior....The verbal expression of pain replaces crying, it does no describe it.”

In the above passage, Wittgenstein with great economy suggests several psychological truths. Namely that humans are born with a repertoire of natural expressions of feeling that are readily understood by others (in this example the crying of an infant). He then posits that, perhaps through training or suggestion, we learn to substitute verbal expressions for these natural expressions of embodied experience. From a functional point of view, these linguistic substitutes perform the same role as the natural expressions they replace. Because the original natural behavior is expressive rather than descriptive, so to must be the linguistic substitutions. “Ouch” is semantically equivalent to “I am in pain”.

We do not learn about “being in pain” or “being hungry” by learning to describe something presented to each of us. Rather, in the case of bad indigestion, we learn to substitute “I have heartburn” for guttural moaning and crying. Wittgensteinian psychologists Rom Harre and Michael Tisaw suggest that there is a difference between the conditions under which the uses of the words and primal cries are established. They posit that as a child learns to substitute verbal phrases for feeling expressions they are “learning a new order of language-game.” When the child learns this substitution principle she participates in a “primary language-game,” or a language-game in which “a participant is trained to acquire a certain vocabulary and means of linguistic expression to take part in more complex (secondary) language-games.” Finnish logician Jaakko Hintikka established the term “physiognomic language-games” as a label for these language games in which “a feeling vocabulary is established for public use.” Since verbal expressions replace natural expressions of feeling, Wittgenstein’s Private Language Argument takes an anti-behaviorist point of view. Verbal feeling expressions or physiognomic language-games seem to point to some sort of internal mental

experience, a notion that rubs up against Skinnerian dogma that insists an organism's thoughts, feelings and experiences may be a sum-total of external behavior. It is crucial to note that physiognomic language-games are non-descriptive. The point of a verbal substitution, or transferring from a primary to a secondary order of language-games, highlights the commonality in grammar between a natural and a verbal expression of feeling. Thus, when the voice of the interlocutor questions that Wittgenstein may be "Nevertheless a behaviorist in disguise...saying that everything except human behavior is a fiction" he has failed to take into account the nuance of the Private Language Argument. Wittgenstein aptly responds to his hypothetical dissident "If I speak of a fiction, then it is of a *grammatical* fiction." This grammatical fiction, as Wittgenstein asserts, is the Cartesian confounding of syntax with privacy.

Although the later Wittgenstein is certainly no behaviorist, (as was popular amongst many psychologists in the first half of the 20th century,) he was indeed an externalist. He does not attempt to explain nor predict behavior through examination of physical or non-physical mental states as a rationalist such as Descartes or an advocate of introspection such as James might. Wittgenstein famously asserts, "If God looked into our minds he would not have been able to see there whom we were speaking of ." Wittgenstein instead uses the environmental and historical contexts of ordinary language as a sort of referent for our behavior. Despite his advocacy of externalism, Wittgenstein is reluctant to completely deny any sort of contingency between behavior and mental states. "What is happening has significance...in surroundings. The surroundings give it its importance. The word 'hope' refers to a phenomenon of human life. A smiling mouth smiles only in a human face." By subtly connecting the act of smiling with the experience of hope—and by our knowledge of physiognomic language-games we may infer that this smiling expresses a feeling of hope—Wittgenstein further denotes the nuanced relationship between sensation, description and behavior.

Wittgenstein's Private Language Argument is certainly a notable counter old paradigm of the mind's foundation in Cartesian privacy and Jamesian mentalism. It should not be said that Wittgenstein rejects all internal processes in favor of externalism, he is wary of descending into behaviorism and questions,

"How does the philosophical problem about mental processes and states and about behaviorism arise? We talk of processes and states and leave their nature undecided. Sometime perhaps we'll know more about them—we think. But that's just what commits us to a particular way of looking at the matter. For we have a certain conception of what it means to learn to know a process better. (The decisive movement in the conjuring trick has been made, and it was the very one that seemed to us quite innocent)...So we have to deny the yet uncomprehended process in the yet unexplored medium. And now it looks as if we have denied mental processes. And naturally we don't want to deny them."

Wittgenstein through much of the *Philosophical Investigations* elegantly walks along a thin philosophical tightrope. If he shifts his weight too far to one side by denying the existence and relevance of mental states and processes he will fall into behaviorism; however, should he do the opposite and assert too much verity in the mental he must resign himself to the old paradigm that he attempts to refute. Wittgenstein, like the

cognitive scientist, is tempted by the idea we will “sometime...know more about [mental states]”; however he recognizes the scientific “way of looking at the matter” may create a certain conceptual framework that may ultimately prove difficult to escape. The alternative, to conceptualize what is “uncomprehended” and “unexplored” is rationally impossible. It is no surprise then that Wittgenstein quickly elucidates his philosophical goals, “to show the fly the way out of the fly-bottle.” Unlike the cognitive scientist, Wittgenstein is not concerned with finding objective truths about the workings of the mind. Instead, he is concerned with guiding his readers out of the conceptual and linguistic misunderstandings that philosophical problems arise from.

These language-based philosophical problems are turned into character problems in *New Ape Idea*. Doug Lamarck-Ganoush is paralyzed by the daunting task of articulating his material embodiment versus transcendent aspects of his mind. Isa overcomes a Tractarian solipsism in favor of an externalist picture of communication. Takashi and Futurabold in turn try to adopt a pastiche of language-games in the form of sub-cultural narratives to blend in with the punk scene/ Neo-Kung populations. By imbuing my characters with ordinary language problems, I hope to transgress the boundaries between academic philosophy and aesthetic experience; that is, through narrativizing Wittgensteinian philosophy, I hope to give readers the opportunity to engage with Cognitive Science in both aesthetic and descriptive modalities.

Dynamic Parallels

To the physics-minded philosopher, correlations between Wittgenstein’s later philosophy and a subset of chaos theory known as Dynamical Systems Theory show themselves readily. Dynamical systems are real-world nonlinear systems that may be modeled using differential equations. Their complexity coupled with their non-linearity make it difficult to compartmentalize these systems into smaller sub-systems. The *phase-space* of such a system is totality of all possible states of its important variables. Even in chaotic systems, these variables may spontaneously shift towards a desired state within the phase space known as the system’s *attractor state* (Pfeifer and Bongard, 2007). Thelen and Smith (1996) posit that behavioral patterns may be conceptualized as attractors within a non-linear system involving agent and environment. Thus, robust patterns of behaviors may emerge from even a simple arrangement of freely interacting elements in a system. Just as Wittgenstein eschews an atomistic portrait of human language in favor of a holistic theory, Dynamic Systems Theory is the attempt to substitute a fluid, organic vocabulary for understanding behavior in place of a modular, programmatic language-game.

Thelen and Smith outline six core goals for a Dynamic Systems Theory of human ontology and behavior. They include,

- “1. To understand the origins of novelty.
2. To reconcile global regularities with local variability, complexity and context-specificity.
3. To integrate developmental data at many levels of explanation.
4. To provide a biologically plausible yet nonreductionist account of the development of behavior.
5. To understand how local processes lead to global outcomes.

6. To establish a theoretical basis for generating and interpreting empirical research.”

Thelen and Smiths' paradigm is highly Wittgensteinian, especially goals 1, 2, 3, 4 and 5; (one could argue that the empirical emphasis of goal 6 flies in the face of Wittgenstein's anti-scientism). Both Wittgenstein and “chaoticians”—to use a coinage by Michael Crichton—seek to do away the illusory representational notions of Classical Cognitivism, namely that there is an essential form within the agent (either logically or neurally) that underlies any specific cognitive or behavioral act. Thelen and Smith note that the adult human physiology contains over 620 paired motor muscles each consisting of several thousand motor units connected to a nervous system of 10^{11} neurons. The infinitesimal combinations of all these elements would require immense computational power. Thus, to move about, the agent must be able to constrain the body and brains' degrees of freedom. They note that through coordination between the natural kinetic properties of the body and neural systems in concert, “cooperative patterns” may emerge. The neuromotor system's huge number of degrees of freedom is reduced when preferred patterns are selected for and inefficient patterns fall out. This emergent behavior is not unlike the ways in which regular space and time trajectories may emerge from the oscillations of a spring. Kugler and Turvey (1987) posit that both motor and linguistic skill acquisition consists in the “soft assembly” of movements in the central nervous system. Skills are not “hard-wired” into the connectome. Though they may have relatively stable physiological configurations, the carrying out of motor behaviors remains dynamically flexible. The many-to-one and one-to-many mappings of neurons to actions allow the embodied agent to carry out motor actions successfully, while still maintaining sensitivity to its situated context and develop new skills too.

Though an agent's engagement with its environment is a multi-level pastiche of sub-systems interacting within the same phase-space, we are still presented with the illusion of linearity and orderliness when observing the behavior of others and ourselves. This observed orderliness emerges from our own ordinary language. We are inclined to describe ontogeny and psychology in terms of genetically pre-coded “milestones” and “timetables”; as this referential structure makes for easy and efficient communication. It is a fatal flaw though to assume that our ordinary language maps perfectly onto any semblance of objective reality, as the *Philosophical Investigations* shows us. As with Wittgenstein, dynamic systems theory rejects the Classical Cognitivist/Darwinian notion that emotions are preprogrammed manifestations of internal states. Wolff (1996) discusses the ontogeny of infant crying behavior to illustrate this point. In his qualitative analysis of waking and crying behavior in infants, Wolff departs from the Classical notion of human emotionality as a steady-state system; rather, human agents switch spontaneously and discontinuously between emotional states. He compares infants developing sleep-wake cycles to systems that exhibit “self-organized criticality”, or basins of attractions that are especially sensitive to perturbation. He then identifies infant crying behavior as “distributed between behavioral, social and neurological subsystems” in such a fluid, interconnected manner that it is “impossible” to delineate the inner and outer “boundaries” of the agent. Emotionality emerges from a non-linear interaction between the agent, social partner and ecological milieu that it cannot be cleanly divided into cognitive states separate from the environment.

Dynamic systems theory is a physics-based descriptive system that is undeniably—though probably not intentionally—Wittgensteinian. In its applications to human development and behavior, DST illustrates the ordinary-language flaws of an atomistic Classical Cognitivist account of the agent. Taken to its rational end-point, dynamic systems theory may even suggest that the categorizing an agent as separate from its ecological context is a language-based illusion. Wittgenstein's Private Language Argument is further nuanced, as we have a physicalist account discrediting Cartesian privacy. Communication is both external to the agent, and internal to its mind in that the boundaries separating agent from ecology is permeable at most. The implications of such are littered throughout the preceding narrative; I am not a subtle writer.

A Strange Attraction Towards Narrative

Storytelling Sapiens

The later Wittgenstein's conception of the dynamic language-game has only gained credulity in light of findings in Primatology and Evolutionary Psychology. Michael Tomasello (2008) channels and refines Wittgenstein's Private Language Argument. He notes that, "The ability to create common conceptual ground—joint attention, shared experience, common cultural knowledge—is an absolutely critical dimension of all human communication". Put simply, a completely private language cannot exist because language evolved as an ad hoc means of sharing information between parties. Tomasello claims that human communication is "fundamentally cooperative". Like Wittgenstein, Tomasello attempts to supplant the Classical Cognitivist picture of language— with its Chomskyan emphasis on the grammatical—in favor of a holistic, use-based paradigm.

Vocal communication in non-human primates is not uncommon; Vervet monkey alarm calls for example have become an investigative paradigm for understanding such communication. Zuberbuhler, Noe and Seyfarth (1997) note however that Vervets will vocalize "irrespective of how potential recipients may view the situation". Alarm calls will be triggered no matter whether other monkeys are present, leading primatologists to infer that Vervets do not take the mental states of others into consideration whilst communicating. In short, they lack the capacity for sharing intensional ground, the rudimentary precursors to a Theory of Mind.

In certain situations where chimpanzees must compete for limited food, the chimps will often base their actions on whether or not their competitors have visual access to the treats (Hare, Call and Tomasello, 2006). The individuals thus exhibit some degree of understanding that the perceptual milieu of others may be different from one's own. Tomasello concludes that this is one of the first evolutionary instances of a primitive Theory of Mind, from which the phylogeny of language is bootstrapped. It is important to note that this chimpanzee Theory of Mind occurs largely in goal-based scenarios, when the intentional agents must cooperate or compete with one another. Searle (2002) characterizes this "shared intentionality" as "a background sense for cooperative agency and a necessary condition of all collective behavior and hence conversation". Though Vervet monkeys do not have the cognitive abilities for shared intentionality, chimpanzees, bonobos and humans all do. Their ability for rudimentary mind reading affords higher, more complex iterations of language to spiral forth. Channeling Wittgenstein, one can assert that a group of players could not engage in a language-game unless they were A) aware of one another's roles as players and B) mindful of the goals of the game. Shared intentionality is a tacit backdrop to the later Wittgenstein's theory.

The currency of ape communication is gesture. While both gestures and vocalizations may contain propositional content, gestures are plastic and engage the attention of the interlocutors. Vocalizations are brittle and may elide over the mental states of others. Linguistic communication is scaffolded around an arbitrary syntactical infrastructure speakers must learn, gesture-users are free from such grammatical woes. Gesture, Tomasello posits, is at the route of our human communication. This lines up with Wittgenstein's assertion that although gestures have neither syntax nor a clear

delineation between sign and signified, they revolve around “direction attention” which allows for “meaning to come about”(Wittgenstein, 1958). Gestures contain a dual intentionality as Grice (1957) articulates. When one gestures towards a box in need of moving, the gesture requires that both interlocutors attend to the box as well as the signer’s desire to have it moved; this dual intentionality seems omnipresent in human communication and is apparent in a rudimentary form in non-human primates. This two-way intentionality present in upper primate communication serves as the cooperative backdrop from which spoken language evolved in humans; it is the field on which we play our language-games, so to speak.

As the goals around which gestural communication was based became regularized—primates primarily just need food, sex and grooming to get along just fine—the associated gestures became codified. Psycholinguist Jean Aitchinson (1998) argues that from certain selective pressures, the need to communicate in the dark or over long distances, vocal communication emerged in early humans. Verbal communication in itself became a selection pressure, which selected for a number of physiological changes that further supported vocalization (e.g., a flexible breathing rate and glottal mobility not found in chimps). Tomasello adds that along with these bodily changes, a new cognitive infrastructure emerged allowing for more complex iterations of communication. Joint intention evolved to include joint attention, followed by more and more complex iterations of communication. Our ability to communicate evolved towards more complex degrees of expression due to what Tomasello calls the “sharing motive”. The groundwork for a human Theory of Mind had begun to emerge with the evolution of the *Homo* genus.

“The sharing motive”, Tomasello tells us, drives the human behaviors directed around sharing information with one another. Later *sapiens*, with many of their necessities for survival met, spend an enormous amount of time sharing information with one another, often in the form of cultural narratives. Narrativizing is at the core of all complex communication: it allows for multiple subjects, events and goals to be linked together in a fluid comprehensible schema. Literary critic turned evolutionary psychologist Brian Boyd (2010) asserts that narrative inhabits an evolved cognitive niche. *Sapiens* are built to “devour information”, and narrativizing allows us humans to store and share such a wealth of information in a constructed matrix of meaning. The complex syntactical structures necessary for narrative, according to Tomasello, arose after thousands of generation of sharing information, emotions and attitudes with one another, birthing a codified symbolic system, grammar and culture within groups of humans. Just as evolution, as Darwin put it, produces “endless forms most beautiful”, these communicative language-games grow ever more complex with time. They are plastic and dynamic as Wittgenstein asserts. Jerome Bruner (1990) argues that the root of human behavior is not in the “biological substrates” of physiology and neuroscience; rather they are the “conditions and constraints” for the human “quest for meaning”. Narrative, according to Bruner, is at the pith of meaning-making. It is not relegated to the realm of fiction, rather Bruner posits that most forms of cultural information transmission, from fables to lab reports, entail a similar narrative structure. Narrative, harnessing our capacities for information sharing, and verbal communication, has evolved to enhance those very qualities, allowing humans to exist as cultural beings.

Songwriting Sapiens

Anthropologist Steven Mithen (2005) gives an account of the origins of human language that is orthogonal (but not necessarily contrary) to Tomasello's. Like Tomasello, Mithen asserts that our modern language-games evolved from a primal holistic proto-language utilized by early *Homos*. Whereas Tomasello claims nonverbal gesture was at the root of all communication, Mithen proclaims that an early ancestor to music and dance served as our *ursprach*. Our verbal language—having been codified and made arbitrary over years of cultural evolution— is a referential system. Spoken or written words signify specific propositional content. Music and dance, however, are mimetic. They attempt to mimic an emotional, intellectual or aesthetic experience by conjuring it up within the listener and performer. Mithen notes, musical communication is less oriented around the transmission of information as it is a “collective, synchronous engagement” between individuals that is in a “holistic multi-modal and mimetic” or *Hmmm* form. It should be noted that Mithen's picture of early music requires similar cognitive scaffolding as Tomasello's proto-gesture. Both require joint intention and shared attention. While Tomasello argues that recursive mind reading was necessary to bootstrap higher forms of communication, Mithen's *Hmmm* subsumes the cognitive load necessary for Theory of Mind within its own structure. That is, through engaging in cooperative synchronic acts of music and dance, individuals are able to spend less energy attempting to mind read one another. Because all interlocutors are dynamically engaged with one another, similar mental and emotional states (as fallacious as those terms are) may be assumed. Mithen defends this hypothesis with applied game theory. Over several rounds of paradigmatic Prisoner's Dilemma games, the strongest tactic is a “tit-for-tat” strategy in which players reciprocate the action last done to them by the other players. After many rounds, it behooves both players to act in a synchronic manner rather than to waste time attempting to read one another's intentions.

Musical expression is bootstrapped from our own embodied experience. Group selection pressures may have precipitated communal synchronic *Hmmmming*; however, it is the human body that has served as both the inspiration and the medium of music and dance throughout our evolutionary trajectory. Theoretical Neurobiologist Mark Changizi (2011) contends that linguistic and musical forms of expression are *harnessed* from our “hard-wired” genomic and physiological engineering. That is, musical communication is a man-made “simulacra of nature” that exploits our bodily capacities for movement and auditory perception. Musical communication is not, as Classical Cognitivism might glibly assume, innately programmed into our neural structures. Its only innate aspect lies within our embodiment. Our bipedalism, for example, allows for a large range of biomechanical degrees of freedom, more than afforded to our ape ancestors. Only two of our four limbs are engaged in supporting our weight in most forms of motion and rest, leaving most humans with two unencumbered arms to manipulate. Our posterior chain allows for our torsos to be held upright, bend and swivel in manners unavailable to quadrupeds. The human body allows for a broad palette of movement styles. To Changizi, music has four essential features: pitch, tempo, rhythm and volume. Our ability to map auditory cues such as sound type, location and direction affords us an ear attuned towards pitch and loudness. Likewise, our bipedal gait is the embodied roots of our sensitivity towards tempo and rhythm.

Dance— one of the communicative modes in Mithen’s “Hmmm”— is a further harnessing of our physiological capacities. As states in the previous chapter, Dynamic Systems Theory has replaced the paradigm of emotion qua external expression of an internal feeling with a view of *emotive action* made meaningful through embodied and cultural situatedness. Phenomenologist Maxine Sheets-Johnstone (2011) characterizes dance as “expressed bodily feelings that course through the body in dynamic ways that moves through the body and moves the body to move.” It is the “qualitative kinetic dynamics” of a dance that serves as the communicative foundation of meaning-making between the dancers and spectators. Mark Johnson (2009) elaborates on the meaning-making capacities of our bodies. Johnson rejects a Cartesian divide between mind and body as well as a representationalist account of cognition as advanced by Classical Cognitivism. He notes that bodily movement is the primal mode of experience, linking it to the Pragmatist’s notion that “aesthetic experience is not just one kind of experience among other, but is the essence of experience itself” (Gadamer & Linge, 2008). Embodied experience and aesthetic experience are coupled and communicable between individuals through isomorphic bodily and cultural contexts. In short, because humans have similar enough bodies and, often times, are engaged in the same cultural setting, a synchronic meaningful experience may be generated and shared between them. Aesthetic experience—Sheets-Johnstone notes—*moves* us bodily, emotionally and qualitatively. Mark Johnson coins the term *vitality affect contours* as “those dynamic kinetic qualities of feeling that distinguish animate from inanimate and that correspond...to the organic processes of being alive.” Dance, to Johnson, “reveals...multiple vitality effect contours and their variations without resorting to plot or categorical symbols.” It is a holistic, contextual and real-time form of communication that harnesses our physiological hard wiring. Dance and music are the presentation and enactment of felt experience in the form of evolved, embodied language-games.

Private from Public

Though the old evolutionary adage “Ontogeny recapitulates phylogeny” has been largely discredited by modern biology, Piaget (1971) suggests a weaker form of the recapitulation hypothesis may play a role in human cognitive development. That is, parallels between our ontogeny and our past evolutionary trajectory may be noted in cases of “similar external constraints”; however, the ontogenic mirroring of phylogeny is not necessarily hard and fast. Piaget’s account of cognitive development involves the child *maturing through* discrete sensorimotor, logical and interpersonal stages, the end of which entails the agent *possessing* a milieu of conceptual skills interwoven into their cognitive schema. Dynamic Systems Theory has encapsulated critiques of Piaget’s theory. Developmental milestones are not *accomplished* by the child; rather they are basins of attractions that emerge from interacting neuromotor and social sub-systems over time. That said, Piaget’s weak recapitulation hypothesis is not falsified, rather an integration of Dynamic Systems Theory nuances it into a theory that is more mappable onto findings in Evolutionary, Developmental and Mathematical fields of psychology.

In light of weak recapitulation, exploring the development of narrative and musical thought in children may shed some light on the development of both cognitive faculties, as well as resolve the discrepancies between the communication-as-narrative hypothesis argued by Tomasello and the communication-as-*Hmmm* position as

articulated in the previous sub-section. Infant Directed Speech or “motherese” is the distinct high-pitch, slowed-down version of language caretakers employ when talking to their young. Though the exact prosodic inflections and verbal content of IDS varies between cultures, Mithen notes that all forms of IDS contain a wider range of pitch, hyperarticulated vowels, longer pauses, shorter phrases and a greater amount of repetition than adult-oriented patois of any and all human languages. Infants pay more attention to IDS than normal speech facial expression or gesture (Malloch, 1999). Mithen hypothesizes that the ubiquity of IDS is an evolved adaptation for bootstrapping verbal language acquisition based on cognitive structures from human’s “Hmmm” past. Infants have a heightened sensitivity to the rhythms, tempos and melodies of vocalization well before they are capable of ascertaining the meaning of words. As infants develop, their engagement with IDS changes as well. For newborns, IDS serves as an auditory stimulus to engage basic embodied interactions between the child and its caretaker. Rising pitches may elicit eye opening and head movements from the child, while decreasing pitches or abrupt shifts in pitch may cause the child to close her eyes and withdraw. After a month, caretakers may use IDS to maintain a child’s gaze as well as modulate her emotional arousal, soothing her when distressed. In late infancy, IDS takes on a higher degree of emotional content, and the infant may respond to her caretaker’s speech with synchronic affective displays, hinting at a rudimentary form of Theory of Mind. By early toddlerhood, the child may extract prosodic information from the IDS, facilitating language acquisition. It is no surprise that infants exposed to larger amounts of IDS display more robust cognitive and linguistic development throughout their lives (Fernald, 1991). Even within this short picture of human ontogeny, we can see the recapitulation of Tomasello’s evolution of communication: embodied interaction turns to emotional expression, which develops into intensionality reading and finally verbal communication emerges.

Lullabies, besides being a key plot device in “New Ape Idea”, are a similarly culturally ubiquitous adaptation. Lullabies harness infants’ embodied capacity for *Hmmm* communication. Lullaby rhythm, pitch and tempo is strikingly consistent across cultures, and may be a more potent developmental tool than IDS as most babies spend significantly longer periods of time gazing at their mother while being sung to than spoken to. Additionally, six-month olds show a greater physiological response to maternal song rather than speech (Trehub & Schellenberg, 1995). Musicologist Colwyn Trevarthen (1999) notes that when mother and child engage in what he calls *communicative musicality* it is not only an instance of the caretaker attending to the child’s mood or bodily state. Rather it is the evocation of “narratives of experience” between the two. IDS and lullaby are both narratively organized, Trevarthen contends through careful analysis of prosody, facial expression and movement.

“A mother greets her newborn in ecstatic cries with falling pitch, and by gentle fondling. She is unable to keep her eyes from the baby’s face. She touches hands, face and body with rhythmic care and holds the infant close to they can join attention and greet one another. Her speech is a kind of singing, with high gliding gestures of pitch and repetition of regular gentle phrases on a graceful beat, leaving places for the infant to join in with coos, smiles and gestures of the hands and whole body. Every move of the baby elicits a reaction from her. These

exchanges are intricately coordinated with a subdued choreography that brings out matching rhythms and phrasing in mother and infant.”

Instances of communicative musicality are dynamic, synchronic language-game emergent from the interactions between a milieu of bodily, emotional, ontogenic and communicative sub-systems. Babies make meaning well before they are able to speak, Mark Johnson observes. The propositional content of a phrase, as Wittgenstein’s posthumous writings suggest, is not the basis for meaning. Instead it is the real-time engagements between embodied agents situated in an ecological (and cultural) context.

Is our capacity for communicative musicality innate? That is, is there some pre-programmed cognitive or neural structure evolved for communication? We may falsify the existence of a Chomskyan *language-acquisition-device* or a Fodorian module. Both consider meaning to be a matter of arbitrary symbols manipulated in syntactical ways rather than an emergent property of embodied situatedness. These are claims of strong innateness. Beyond this extreme, the philosophical question of innateness becomes tricky. As evinced by Dynamic Systems Theory it is difficult to *quantify* the threshold between the internal feeling and external behavior. Wittgenstein and his phenomenologist pals show us how that barrier is hard to *qualify* along linguistic and experiential vectors. As Hofstadter claims, “We cannot escape the trap of using everyday words to describe the events that we witness and perceive as real” (2007). We are inclined to use first-person vocabulary focusing on our metaphoric “interior experience” and “external behavior” because we are not able to perceive the world on more fundamental mathematical or biological levels. To take Hofstadter’s argument to its extreme, the individual “I” may be a mere linguistic abstraction, a side-effect of ordinary language usage. The problem of innateness, along with a laundry list of other classical philosophical questions, may possibly be verbal illusions as well. Included in their ranks is the central schism between the two accounts of the evolution of human communication I have heretofore presented. Are we agents with a fundamentally private experience who share information and make meaning through synchronic multi-modal communication as Tomasello and Mithen suggest? Or—in the vein of Wittgenstein and Trevarthen—are we fundamentally public beings whose languages, thoughts and behaviors develop explicitly because they are shared?

The answer, I contend, is both. I resolve these seemingly contradictory accounts with the introduction of the concept of *Autopoiesis*, or the self-creating aspects of certain biological systems. For example, a single skin cell retains a structural, functional and behavioral unity despite the constant flow of matter and energy in and out of it. Similarly, the skillful use of communicative musicality, honed through evolution, create the systemic parameters for Theory of Mind as well as gestural and vocal communication. Each iterative form of communication engenders the development of a more syntactically/referentially complex language-game that subsumes its predecessor in a sort of dialectical progress. Shared intensionality and rudimentary mind reading was harnessed by our *Hmmm* proto-language from which modern verbal and gestural language was scaffolded. (What Tomasello calls language’s evolutionary “Drift to the arbitrary” is truly a shift from mimetic to referential modes of communication.) The entire evolutionary trajectory of human communication is weakly recapitulated in childhood development.

Infants may very well be born into solipsism: unable to parse a difference between their experience and the rest of the universe. Through the communicative musicality “Dance of Wellbeing” as articulated by Trevarthen, the newborn infant moves his body in synchrony with his caretaker’s musical motherese, beginning with the eyes and head and radiating to the extremities as he ages. His basic neuromuscular body schemas are trained during these dances, granting him the experience of being an embodied agent situated in an exterior environment. As he grows he becomes able to track the prosodic and facial aspects to his caretaker’s song and respond to them with his own vocalizations and emotional expressions. He can begin to access “the temporal world and feeling state of the other” (Dissanayake, 2000). The infant is able to recognize the existence of another mind as separate from his own. These are the preconditions of intension-sharing and *Hmmm* language-games. As these public forms of communication develop within the child they set the stage for acquiring verbalization. Spoken communication is refined into culturally-specific ordinary language as development continues. The majority of human spoken languages revolve around the individual “I” as its most basic grammatical subject. Furthermore, embodied experience becomes the root of linguistic metaphor. We experience an embodied self that moves and feels as well as an *outside* environment independent of us, the phenomenology of which informs our language (Johnson, 2009). As we develop, we may find it difficult to think *outside* the faculties of our verbal language, further enforcing our proclivity to conceptualize ourselves as private Cartesian subjects. A great irony shows itself here: public and mimetic communicative forms are the phylogenic and ontogenic backdrops of private, referential language-games. Our concept of ourselves as individuals is the result of harnessing highly public and collectivist language-games. Our experiences of privacy are reinforced by ordinary language and vice versa. The “I” emerges autopoetically and retains its structural coherence through language and embodied experience. Such self-organization through would not be possible if not for the emergence of the “We” in our developmental and evolutionary pasts. The very ability to articulate philosophical problems of solipsism and “other minds” is predicated upon the fact that our early ancestors used much more robustly *public* communicative systems. Our *Hmmm* background is paralleled in the ontology of every one of us as infants.

The boundaries between the self and others may feel more or less permeable through the course of time. In *New Ape Idea*, permeability of the self extends from the vitality affect contours afforded to characters at given moments. A hyper-mediated ecology with a dearth of F2F interaction elicits feelings of strong isolation, loneliness and solipsism in character such as Isa, Vreeman and Zfdel in the novel’s first part. Conversely, the synchronic dancing of the mosh pit and the hypnotic effect of New Ape Idea’s music dissolves the membranes of individuality for all Rule 30 concert attendees. These latter instances of transcending private solipsism correspond with the replacing of verbal language with communicative musicality, at least within the universe of “New Ape Idea”. The vitality affect contours created by New Ape Idea break Isa free of solipsism in the novel’s second part. Likewise, the Melodica Corporation wishes to use New Ape Idea to create a communicative musical experience that will turn the emerging *I*’s of orphans into collective *We*’s as a sort of cognitive eugenics. The punk trio are thus able to create a milieu of vitality affect contours that reverses the dialectical development of a sense of self. Private and referential language-games become the precursors for a

reemergence of their *Hmmm* predecessor. The music elicits, as noted in the novel's climax, an ontogenic feedback loop. I cannot claim that music of any genre is capable of undoing our own cognitive development. This is the fiction within my story. I only wish to use it alongside the aforementioned hard stuff in order to illustrate the musical evolution of our language, art and sense of self.

Closing Remarks: Towards a New Narratology

It is notable that Trevarthen characterizes communicative musicality as a narrative process. The caretaker-child "Dance of Wellbeing" unfolds over time, like narrative. Trevarthen also notes that intensity of movement, facial expression and vocal pitch between caretaker and child modulates then falls in a narrative-musical manner akin to rising plot tension, climax and dénouement. Trevarthen's narrative spin on communicative musicality is curious. Narratives, according to textbook Narratology, are identified by the contents of their *fabulas* or the unfolding of events over a period of time (Bal, 1997). Fabulas are largely encoded in complex syntactical structures, allowing us to overlay baroque arrays of characters acting out various events in different times and locations. Bruner calls these grammatical tricks "subjunctivizing transformations" or "lexical or grammatical usages that highlight subjective states, attenuating circumstances, alternative possibilities". Bruner claims these transformations are integral to meaning-making as they allow for an enhanced Theory of Mind. As any literature professor will say, consuming stories broadens ones perspective. Narratives allow us to inhabit the constructed minds of characters and simulate events disparate from our own experiential repertoire. The complex syntactical and referential mechanics of narrative are the result of harnessing communicative patterns that we are first exposed to in infancy.

As an extension of our ordinary language, narratives constitute part of the autopoiesis of identity. We may scaffold between feelings we experience as our own and the minds of others. The ubiquity of narratives has been studied under a wide range of disciplines, from Computer Scientist Roger Schank, to Postmodern Philosopher Jean-Francois Lyotard. The former considers stories to be the mortar of our human cognitive architecture; the latter attempts to distill culture as a pastiche of interwoven little narratives. While both investigations have merit, I wish to offer a third route towards understanding narrative. Through the integration of Cognitive Science and Narratology we may attempt to reverse-engineer the developmental and evolutionary origins of the human mind, language and our sense of identity. As stated in an earlier section, this project only solves *easy* problems of consciousness. I have not yet articulated how to solve music and narratives' *hard* problem. How can we study the aesthetic experiences afforded to us by a good story? To investigate such I suggest you just read the damn novel.

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