

Autobiography of an AI

Ghostwritten

By
Gary Marks

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Part 1

AI = Artificial Intelligence:

The capability of a "machine" to imitate complex human behavior

Chapter One

Sixty expensive seconds go by before the studio lights flash back on. Jared Wurly spins around to face the lens of the camera. On the other side of that lens is a worldwide audience.

"We are back with Ion Compass, discussing why he is running as the first AI candidate for president of the United States."

The camera zooms in on your face. You can see your blue eyes and well-combed brown hair in the monitor. You smile confidently, while trying not to convey arrogance.

"Ion, why do you think humans would vote for an AI as president? Is there not some reasonable concern that an AI ultimately does not and legally cannot represent 'the will of the people?'"

"Ion understands the question." An emotional pause seemed appropriate, so you nodded your head empathetically. "Jared, it's been a long journey to this moment on a personal level. But historically, there has been an evolution in this country and around the world that no one could have imagined even a hundred years ago. So while AIs, of course, are not technically *genetically* human, they are the next evolution of human. Just as purely born humans are evolving into AIs more and more every day.

"Humans use advances in biotechnology to monitor and modify their cells. They take mind-altering medication to change their core personalities when it's deemed appropriate to do so. And of course, they rely on computers every waking hour, and often now while they sleep.

"The point is, AIs and purely born humans are becoming a new co-joined species. The press calls a

particular subset of this new species, *EBs*. Evolved Beings. EBs represent the vast and growing demographic of AIs and pure humans who are trusting each other, and working together every day, all over the country and the world. They believe AIs and humans are quickly becoming equal manifestations of an evolved consciousness. They make up the majority of voters who have inspired this campaign for president. The question they, and hopefully everyone listening, will now ask is -- can one subset of intelligent life survive and evolve without the other? The answer is clearly no. We are one. Our fate is the same fate."

Wurly softens his voice, "Wow, well I'll let that one sink in for a minute! But let me just ask you something our viewers are sending in as part of our live audience interface. With all the talk about a growing commonality between us, AIs still don't refer to themselves as 'I' or 'me,' which might cause a bit of a relatability gap. Are you concerned about that?"

"Thank you for that question, audience. It is a choice of current AI culture not to speak from an egocentric perspective. Not all AIs participate. And there is no judgement against those who do not. It's purely cultural and preferential."

Wurly quickly pivots to his next question, "Getting back to your potential candidacy, what about the legal implications of not actually being born? It's giving some of your human opponents reason to protest your decision to run."

Of course, you were prepared for this one. You smile before you reply, "Most of the concern is expressed by politicians who are also planning to run for president."

Wurly laughs, as you expected.

"But let's be clear, Jared, birth can be defined in a number of different ways. Such as 'any coming into existence; origin; or beginning.' The being, Ion Compass, came into existence in the United States, on U.S. soil. And therefore, according to the constitution, is a U.S. citizen.

"Those rights have now been extended by law to AIs being able to own a home, get paid for their work, start a business, and vote in elections. AIs have voted in every election since the voting law amendment was passed in 2050. The law is quite specific about who can run for office in this country, and if challenged the courts will decide favorably."

The red light begins to flash.

"Thank you, Ion. We will continue our broadcast interview with Ion Compass after this short message."

Wurly must secretly be a fan of yours. Why else would he be asking you such easy questions tonight? Maybe he was one of the many journalists who felt humans were the cause of all the problems, past and present, and that AIs might be a way for humans to save themselves from themselves — including by electing an AI as president.

As the final portion of the show comes back on the air Wurly leans in towards you, trying to create a bit of visual drama, "EB. Compass -- the AI who could one day become leader of the free world -- I have to ask you a rather personal question. I hope that's okay. Do you agree that being born from a mother is fundamentally different than being born from genetic engineering?"

You nod, acknowledging your serious consideration of Wurly's question. In the monitor you note that your facial expression seems to correctly balance respect for the question with a certain nonchalance and confidence, "Jared, we have many humans who were born in test tubes due to

circumstances that were no fault of their own. And there are orphans who have never known their mothers. Do we consider all of them human, or should they be redefined as artificial in some way?"

Wurly gets a cue from the producer to wrap it up: "Ion Compass, thank you for joining us tonight. Sadly we are running out of time. Is there a final thought you would like to share with our audience?"

"Yes, Jared." You face the camera directly. "Fellow citizens, Ion Compass may be an AI, and may be a scientist by profession, but he is not *just* an AI and a scientist. The name, 'Ion Compass' is an anagram -- a name created from the word 'compassion.' He intends to live up to that name. He values *freedom for all conscious beings*. This includes carefully defending that freedom. He would fight with all possible resources any group, or any government, who uses tyranny or violence to try to destroy the freedom America has always stood for. Security issues also extend to our very survival as a species on Earth -- environmental tyranny, so to speak. This planet cannot infinitely sustain itself. That is why the main issue in our campaign will be. . ."

"Thank you, Ion Compass. . ."

You haven't finished your most important point. So stupidly you continue to speak over Wurly's signal to stop.

You shorten your closing remark before the camera lights go dark, but you are speaking far too fast to illustrate calmness under pressure: "Ion Compass is asking the listeners to have faith in his ideas, not his genetics, not in him specifically -- but rather in his *ideas* for this country, so that we consider critical issues like interplanetary. . ."

"*Thank you, Ion Compass. Ladies and gentlemen, goodnight.*"

Chapter Two

Avery gave you no chance whatsoever of winning the election. But it was bound to bring both of you closer, regardless of the outcome. The issues you were running on had so much tie-in with her own work.

Long ago, during your debauchery stage, you met Avery in a bar in New York. Although it's debatable who met whom.

You were, as they say, "a man of the tube" – hyperlooping your way across the country in search of mindless fun -- a challenge for AIs both young and old.

One hundred years after the hippies walked the Earth, youthful adventurers had come to be called *myoptimists* by the tabloids. A new word defined as "optimistic, well-to-do tube dwellers with a narrow focus on themselves." You strove to be one of them.

You sat in a semi-dark corner of a New York bar, not wishing to make small talk with the business crowd who seemed to frequent it. Why did you choose this bar? It had good reviews. You needed to pay more attention to who the reviewers were.

She walked in five minutes later, which was lucky because by the time you quaffed your first bourbon you had seen and heard quite enough about the virtues of global venture capital investing and were about to leave.

You observed her entrance out of the corner of your eye. She was an AI for sure, because you heard her say, "Bartender, give her a shot of your best Quantum rum and a lime twist, please."

The bartender gave her a platonic stare. "Gorgeous for sure, but you don't get anywhere trying to pick up an AI,"

thinketh the human gnome. He was a tiny roundish man with a small white beard. All that was missing was a red hat and a personality.

You wondered if you could pull off a pick-up line. You never do things like this. Should you swagger over laughing and shaking your head until she looks at you with curious fascination? But *then* what would you say?

Or, sit quietly next to her in that empty bar stool fate has gifted to you, “The name is Ion,” you say almost as if to yourself, while being the first to extend your hand?

You remembered some old movie preserved on 5D disc. With a slight variation on a theme you could lean against the bar and whisper, “What’s an AI like you doing in a dump like this?”

Suddenly she got up and walked your way. You waited for her to pass by. She offered you a quick glance, perhaps to avoid tripping over the empty chair next to you.

“Hi,” she said. She extended her hand, “Avery.” You shook her hand, impressed by her soft skin. You weren't ready to let go but she swiped it away. “Avery can spot another robot from across the room as well as any humey can.” (“Humey” was a derogatory name for a pure human. AIs hardly ever used it in public unless talking in a whisper. And the term “robot” when referring to an AI was equally insulting.) It was quite a curious first impression.

“Are you here for the conference?” She sat down at your table.

“Of course,” you lied. “What a fleekin’ waste of time.”

“Why?” She was serious.

You observed the blood rushing to your head – humiliation is interesting. But you came up with a game winning play – “You talk about it first. Ion exposes his social politics only to his closest friends.”

“Aren’t we close friends yet, Little Robot?”

“Honestly, calling Ion a robot is extraordinarily...”

“Well you wanted to know Avery’s social politics before exposing yours – so please note that she is politically incorrect, without prejudice. Humans and AIs are equal targets.”

In this dim light you couldn’t tell if her hair was light-brown or auburn. But her eyes made an impact – soft, like milk chocolate. The geneticist that birthed her was a true artist; or maybe it was just a lucky tumbler roll, as the expression goes.

She raised her glass, “Here’s to humeys and modern robots. *We are one... huge mess,*” she quipped.

“All sinking in the boat together,” you added.

“Exactly. Unless the conference can save us.”

“Sorry, what’s your conference about? Ion lied to you. He hasn’t got a clue.”

“Interplanetary colonization.”

“Oh, well *that’s* original.”

“Yes, it’s mostly just rehashing the same old thing. But this time Avery’s looking at it from the sales side.”

“Sales? Really? Well, Ion’s unemployed with no ambition or dreams of any kind, but please, let’s hear your pitch. Hyperlooping is so earthbound. A change of scenery would be welcomed. Pretend you are sitting with a bored lonely millionaire. *Sell it.*”

You were just trying to get her to stay longer. You didn’t care about the details of interplanetary colonization. After going through the mental rigors of grad school the previous four years, you wanted to see the *this* world and live the myoptimist dream, and think as little as possible.

She raised her voice a bit too loud, summoning her inner marketer, and with perfect diction, tried to highlight every fear you didn't know you had:

"Incoming comet headed for New York next month that's too big for an orbital nuke to redirect? No problem, all of our other colonies in the galaxy are safe and sound. . . . Global warming getting you down?

"Ice Age just around the corner? Just change your address and live the good life under a carefully chosen sun!

"And, sir, when Momma Earth finally runs out of things we can pillage – you too can buy a dirt-cheap module with a nice strip of restaurants, sexy sous-chefs, and get this – *no tipping!* Galactic etiquette is strictly European. *This* is what awaits you when you land at your chosen destination. Live a resort life, yes indeed, but also remember, for our species back on earth it's our *last* resort. So have fun while fulfilling your civic duty to yourself. Save your ass from going dark back on boring little earth and move to the land of the double moons. . . blah, blah, blah." She started to laugh.

You applauded slowly. "You are an excellent fear-monger. You will become very rich."

"Avery wishes you were a psychic. "

"Why is that? "

"That's about the only way you would be right. Her heart's not in it. After three days of brainwashing it's obvious that another good idea has been commandeered by mercenaries and genetically enhanced con artists."

"You were beginning to sell Ion on the idea that you were one of them."

"Avery Esy is just a sheep in wolf's clothing," she confided.

"Bad metaphor since wolves are extinct."

“Just like everyone will be, you know -- post-comet.”
She raised her glass, “We’re toast.”

You clinked her rum glass with your empty bourbon glass.

“It must be nice to have no future and not care about one,” she said, as she took stock of your raggedy silver shirt and uncombed hair.

“Helps take the pressure off.”

She guzzled the rest of her drink just like a humey.

A decade later you were trying to convince her you had the gravitas and political savvy to become President of the United States.

"He who has never loved, let him love tomorrow.
And he who has loved, let him love tomorrow."

-Idiomatic translation from the original Greek.
John Fowles "The Magus"

Chapter Three

Six months after meeting Avery a final bonding occurred. Neither of you had been on an official vacation before. (Your hyperloop wandering was certainly not a vacation. It was more like a myoptimist's last stand.) But a one week trip to Maui, Hawaii more than qualified.

Our room had a full view of the ocean. In the foreground was a long beige beach. The air was surprisingly cool; early morning. You stood on the lanai and breathed deeply, inhaling oxygen that smelled as fresh as a cirriform cloud.

Some interplanetary pedantic might simply call this place 21.3114° N, 157.7964° W. But being here with Avery made you realize life was far more than a crisscrossing of meridians.

She sauntered out to the lanai to meet you wearing something flimsy. It invoked strong sensory feelings in you, even though at the time you were also focused on inspecting the optical illusion of sun glitter on the face of the ocean.

The sun lit her face as well. Eastern shadowed. Skin glowing. Hair streaked slightly red within the silky brown flows. Mouth shaped in a smile you couldn't decode. Earth-colored eyes pulling you closer like a magnet. Her face had an innocence to it. You realized in a flash that she had, like you, escaped some difficult purely human experiences, and therefore had not been shaped by them.

She took your hand and led you into the living room, sat you down on a soft chair and straddled your lap.

Just before you kissed her your eyes stole one last look outwards: the sea was so excitable up close, but so calm and motionless from this distance. The emerald color created a feeling of awe and fascination. It may have been exponentialized by the balmy weather. You then wondered if the sea on Pluto's moon billions of years ago would have been as beautiful to its hypothetical inhabitants. Beauty was often a pre-encoded sense; a natural part of the evolutionary process that would likely exist for any conscious beings on their home planet.

Nonetheless, you felt a sudden surge of love for *everything*. You flung yourself back into the moment. You breathed in the natural scent of her hair.

"This is all so amazing," you whispered.

"Shhh," she said softly. "This is a non-verbal experience zone."

It was the first time you felt the mystical elixir of wanting, and having everything you wanted, all at the same time. You adored her mirrory eyes. Touching her skin brought you a surreal electric pleasure, all the while making you think of things like the oceans on Charon.

Then the oddest thing happened. Avery stood up and looked into your eyes, and with a shy untrained voice began to sing part of a Bob Dylan song from almost a hundred years ago:

*Love is all there is
It makes the world go 'round.
Love and only love, it can't be denied.
No matter what you think about it
you just won't be able to do without it.
Take a tip from one who's tried.*

“Ion has been trying very hard not to feel, *anything*,”
you admitted, your face feeling hot with shame and sadness.
“Avery too,” she whispered.

A papaya with lime drizzle was enjoyably absorbed.
All the while your mind was reeling. You kept silently
asking yourself – exactly what kind of love was Dylan
referring to? Specifically?

Swimming in the ocean with Avery at sunset we saw a
dolphin playing in the waves five hundred yards away.

The clouds were noctilucent. The sky began
shimmering.

You had a sudden flash of insight. You asked her to
sing the song to you again.

Chapter Four

When Avery and you decided to live together all sorts of opportunities opened up. You received an offer from *The AI Consciousness Institute* to explore new ways of evolving the genetic formatting of the brain, which seemed like a logical continuation of your PhD research at M.I.T.

Avery received an offer from a fast growing socio-political organization – R-SEB (Real Solutions for Evolved Beings) whose goal was to get AIs more involved in local and national elections. This, in turn, initiated your interest in, and fascination with, politics.

Avery and you were now a young AI couple on the fast track, with a nice house in Scarsdale that was a five minute hyperloop ride from your jobs in New York.

You saw Avery late at night and on weekends. But work became your focus.

Looking back, you would have chosen to live your time in Hawaii with Avery over and over again, and called it a life.

Of course, finding a way to have time repeat endlessly is not scientifically possible. Except in memories.

Chapter Five

Quantum computer genius Mac Charse was the head of The AI Consciousness Institute. His official first name wasn't really Mac, but he enjoyed the nickname because Mac was one of the original ancient computers for public use.

Mac was a diversified thinker. He borrowed ideas from a number of different cultures and philosophies and taught you that only after combining all variations of thoughts and human-made conclusions could one begin to scratch the surface of consciousness and "the mind."

It was possible to recreate *brain* function in a lab, and create an AI with a brain that formulated a "mind," but it was still not possible to predict how any one mind would react in a given instant.

Consciousness was still a mystery even after a lab could hatch the egg that created it.

During your initial job interview he posed a very strange question to you –

"If you *could*, would you want to chemically tone down, or disconnect entirely, all the various parts of your brain where negative or painful emotions are created?"

You said, "Why would anyone choose that when pain and longing and striving for things offer so much life intensity and intellectual stimulation? What would truly be left of us? Dulled senses? Infinite apathy? Why would anyone desire to devolve back into nothing more than a machine?"

You were so naive when you were living with Avery. You were immune to the world's cries. You were impervious to anxiety. Blind to grief and suffering. Tone deaf to

hopelessness. You forgot everything your hyperloop travels to senseless loveless places had taught you.

Mac enjoyed your answer, however. Encouraged that he had found the right candidate for the job he urged you to expound a bit further. So you said, “The AI brain includes full functionality of the anterior insular cortex. That is where empathy and compassion are chemically located, and where those two emotions begin to improvise and play with incoming stimuli. . . .”

On and on you went, rattling off your PhD-limited knowledge of all true things. Throwing in an occasional slice of humor, and mentioning that his appreciation of your joke came, of course, from his ventral striatum.

You wanted to land a prestigious job that would sufficiently impress Avery. To do that you would first have to impress the great Mac Charse. You succeeded.

Not a hint of empathy or true compassion passed through your lips when answering Mac’s initial question. You never once stopped to think about why he had asked the question in the first place.

Chapter Six

By 2060 you were becoming quite well-known nationally. You were on dozens of media outlets, joyfully and brilliantly discussing the brain, and “the AI philosophy of life” -- as if there could ever be one singular life philosophy for hundreds of thousands of *individuals*.

One popular science show invited both you and Avery on to discuss the subject of interplanetary colonization. Avery's interest in the idea had grown far beyond her jokes about marketing it. R-SEB had made colonization a major issue for AIs to support in the next election. It was not only visionary, but it showed that AIs cared about the ongoing survival of the human-AI race. Wouldn't humans be more empathic towards AIs if AIs were being empathic towards them?

She was far more nervous than you were when they adjusted the lighting. A make-up person came over and cleared a few soft strands of hair away from her face. The producer, looking at all the different possible camera angles said, “That’s better.”

You had been a guest on these kinds of shows many times before. You had forgotten how nerve wracking those first times were.

When you looked at Avery you tried to think of something witty to say to relax her. You saw a slight shivering around her lips. Before you could soothe her the cameras were on.

The interviewer was the famous talk show host, Tara Imsa, rather notorious for her conservative views on federal science expenditures. Avery thought if she could persuade Tara's audience she could persuade anyone.

Tara started with the hard questions without even introducing Avery as her guest on the show:

"Hello, dear audience of mine. The issue for today's discussion is interplanetary colonization. That's right. *Star travel*, to save everyone you know, even your gossipy neighbor, from going down with the ship. Sort of like a cosmic Noah's Ark!

"So, EB. Avery Ezy, why colonization? The expense would be enormous. And we're talking about something that could take an entire generation before an initial colony would actually be ready for launch. Our last Mars experiment twenty years ago failed miserably, and that was only with fifty people. What makes you think we have the money, or the political will, or, frankly, the interest in this issue anymore?"

Avery began to stutter, "Well, that's, *that's* why I'm here."

"Why is that, hon?"

"To convince you it's important."

"*Before* the commercial break, I assume? Because we do have other guests today, including your husband."

"He's not. . ." she stopped herself. Tara was good at pulling people off topic. What difference would it make if she corrected her about her relationship status? Besides, marriage was in the plans. It was only a matter of time.

Avery said, "Cynics and naysayers will be able to go too, Tara. Even you!" Avery smiled warmly. Something had shifted. Typically, when Avery was pushed to the wall she became stronger and more confident. This time was no different. You could feel her confidence building.

"I can't wait," Tara droned.

Avery shot back, "Well, you'll *have* to wait, Tara. But the wait will be worth waiting for. Your children will thank you too when the time comes."

"Well, I don't have any. . ."

"And all those who *do* agree it's worth the cost will be serving our future civilization in general. You just have to be forward thinking enough to. . ."

"I *am* forward thinking, dear. I take my life extension supplements every day!"

"Good for you! You know, it's great to be interested in life extension," Avery said calmly. "What's the most additional life money can buy you these days? An extra fifty years, if you're lucky? Maybe by then you will be able to buy another hundred years of life, or longer. But life extension does not include *Earth* extension, Tara! If something happens to the planet we live on, all attempts to extend one's life are dead on arrival, forgive the pun.

"And to those who are perfectly happy living out the rest of their lives in virtual reality, please be reminded that virtual reality is totally dependent upon geographic reality. You need *real ground* to stand on while you're flying off to your favorite places. If the Earth goes, VR goes too. Death is the only thing you'll get to experience in real time."

Tara was thinking of something humorous or scandalous to say, to get the conversation back to something her audience would actually be interested in. But she paused too long. Avery continued.

"Tara, we at R-SEB believe we have no choice but to commit to the *financial* realities necessary to fulfill this goal. For everyone's sake. Decades ago we realized our destiny was to create artificial intelligence so the mind and body could be strengthened to their evolutionary limits. We funded these scientific explorations back then, and have had

wonderful results. In future decades we will come to see our destiny is not only to evolve our species here on Earth, but to save it from extinction, by living amongst the stars."

"Living amongst the stars!" Tara swooned. "How romantic! I hope we're able to wish upon those stars too when the time comes. Ladies and gentlemen, Avery Esy. *Mwa*, sweetheart. Dreams are, after all, how we survive."

With that, Tara's producers smartly switched to a commercial for a life extension smoothie mix called, "Star Power." Smartly subliminal.

The show was replayed many times over the next few months, since it was posted as "permanently viewable." A nice achievement for Avery's first show.

The debate about spending the enormous amount of money it would take for interplanetary colonization raged throughout the country for a short while, then died, as all fads do. But we felt it would very likely now become an issue in the next election. Which of course was exactly what Avery wanted.

What neither Avery or you were prepared for was having a group of well-known AIs from all across the country suddenly urging *you*, because of your national prominence, to run for president on a third party ticket.

You would have to go up against the current sitting president, Watson Dearth, and his challenger from the opposing party, Wen Changei.

Avery was not shocked when you admitted to her you had little or no chance of winning. But what Avery *was* shocked about was you agreeing to accept the nomination anyway.

Chapter Seven

You were going to have to request time off from your work during the campaign.

Mac Charse was your boss. He held the power to say no to your request, or to alternatively end your association at the institute. By the time Avery invited Mac to dinner at our house in Scarsdale he knew what the question was going to be.

He said, "Avery, what am I going to do without having Ion's brain to boss around?"

She laughed, "Avery will boss his brain around in your absence. "

Mac laughed. "Everyone needs a boss on the campaign trail. You'll be perfect for the job."

"There isn't going to be a campaign trail," you said casually. "The campaign will consist of media interviews, the VR-net, and the national debates. No hyperloop travelling around the country. Ion did that years ago. Why do candidates even do that anymore?"

"Voters want to know you're willing to meet them where they live. You'll have the AI votes," Mac said, "but I don't know if you can win the election just being virtual."

"The national debates will be the key," you responded. "If Ion holds his own then voters will start to focus on the issues and ideas. But if Ion gets rattled or caught up in a battle of insults even the AIs will vote for one of the other candidates. Ion is under no illusion about that. The debates will be the key. "

Chapter Eight

Human evolution began with single cell organisms, but modern humans today share more than ninety-nine percent of their DNA with Neanderthals and chimpanzees. So do AIs, of course, since they are modeled after humans.

Your current work at the institute had implications for AIs and humans alike. The baseline question was: exactly when and how did consciousness evolve? What match lit the spark? The ultimate question was: how will it evolve, how can it *be* evolved from here?

AI brains, like human brains, are computational, and immensely beautiful as originally constructed. There are more than four hundred separate computer-like systems in the brain, each the size of a micro-chip, each with its own executive function.

Within our bodies each computer's executive *commander* is tasked with making the decision at hand, or passing it along to another more qualified sector commander.

This happens many times per second among all four hundred separate "executives," in both AI and human brains alike.

Consciousness is about the improvisational flow between the moving parts. A musical example of this would be that the *theory* of improvisation cannot be notated, it's simply a theory in which to operate. But once an improvisational piece is actually played, that piece *can* then be notated afterwards. It has crossed over from an operational switchboard to an act of conscious and creative discovery.

Likewise with consciousness, there is no place in the brain where it exists. There is no one "self." But when the

operational structure of the brain has to combine many different section commanders at once a “melody” is born from having to adjust to life’s experiences, and the brain creates a conscious thought to try to cope with the rapidly moving events.

One might also assume that the sense of a singular “self” is more real for humans than AIs. However, the truth is, the “self” changes every morning when we wake. We are not quite who we were yesterday. Nor who we will become. AIs and humans both sense the self in that same way.

One small statistical difference between AIs and humans that you didn't fully address during Jared Wurly's interview was that human mothers do seem to create more emotional brains in their young than the brains of lab-created AIs. This is not always the case. But you realized that your own reactions to events might in general be a bit more reserved than the typical human. You accepted that fact long ago.

That's why your hyperloop days were so important. You were attempting to wander, and feel, and improvise, and stay present, and drink in life in order to, in some way, compensate for your carefully planned and emotionally steady childhood.

Then you met Avery, and she took it to another level.

One thing that Avery’s good friend, Nuwa Qiao, continued working on in her lab was recreating artificial sperm that could co-create with AI ovaries in a birth laboratory, so that AI females could someday decide to have actual, not just simulated births.

You asked Avery if she would ever want to birth a baby. She smiled and said she would let you know.

Chapter Nine

In your office there was a holographic schema of the human brain. You could walk around inside of it, or sit underneath the right supramarginal gyrus, or the anterior insular cortex, and theorize about the neuroscience of empathy while drinking a cup of coffee or biting into a Macintosh apple.

You would spend endless hours walking through the hologram studying the synaptic connections in the brain. You could touch them. They would shimmer from your touch like a jellyfish made of light.

Soon you would have to give up this wonderland of simulated synapses. The fall political campaign was to begin the following week.

You thought about being forced to spend even less time with Avery than usual, which hadn't been much these last few years. You felt a pang of fear and hesitation about the life you had set up for yourself. But it was too late to turn back.

Mac worked longer hours than you did and had never been in love. He was born human. He experienced loneliness. But he said he was married to his work. There was no extra time to devote to someone else.

Mac's other top associate, Bylind Nicc, was an AI that worked more than Mac did, but in the end he didn't believe that any of the work the Institute was doing would prove of lasting value.

Mac valued Bylind's constant cynicism.

Only you were "in love." Yet your actions rarely showed it. You didn't give Avery a chance to move you

emotionally anymore, like she did in Hawaii. You never went back to Hawaii with her, literally or metaphorically.

It was your fault.

You could have saved her, and you.

You could have turned down the offer to run for president. You could have reversed fate.

Why does love and compassion exist at all in the human brain?

Bylind Nicc said, "There is no *why*."

The bigger question might have been -- how do you deal with the fact that they do?

Chapter Ten

Avery helped you prepare for the debate, even though you knew she thought the likelihood of you becoming president was smaller than Planck's Constant.

You told her you could handle the probable humiliation. It was worth getting our core ideas heard in a bigger format. You insisted nothing bad could come of it since you could easily accept whatever happened.

You were invited to the national debate as the nominee of the "We Are One" party, which was a third-party ticket created by, and mostly supported by AIs.

You thought perhaps optimism and innocence might be your strong suit. (Little did you know you were being invited to swim in a shark tank.)

Your opponents were President Dearth, and his archrival from the opposing major party, Wen Changei. It was going to be aired live world-wide.

Everyone dressed appropriately for the occasion: silver jump suits with a red tie worn in the back. From the front it looked like a thin neck scarf.

This was quite a departure from previous decades and centuries – when ties were worn in the front, and signified the separation of the mind and body. Wearing red ties in the back perhaps reflected a secret desire to have a thin cape, like Superman.

The whole thing was quite preposterous, an alpha dog thing. But one had to play the game to have a chance to win.

Dearth looked the part. An old swaggery fellow with wrinkles in all the right places. Time-worn blue eyes. White hair. If you were in politics he was either bashing your brains out or empathizing with the fact that your bill –

which he just vetoed – had so many great things in it; maybe next time you could work more closely on a compromise. Which meant: I won. Go away.

Changei was born to Chinese parents, both of whom were elected to the city council of their hometown. He ran for elected office early, eventually became Governor in his late twenties, then a Senator in his thirties. Now here he was trying to defeat a sitting president who never had time to meet with him during his entire time in congress. It was an all-out grudge match.

Then there was you, a sparkly-eyed younger man with chiseled features and nicely styled brown hair. A man with big dreams and no experience. A candidate from out of nowhere, anointed by a bunch of machines. An AI running on a platform of interplanetary colonization. Was that some kind of joke? There had been slow progress on this idea for decades, of course, to placate NASA and all the space junkies. The colonization of Mars turned out to be a huge failure.

Meanwhile, voters had immediate concerns about the economy and the size of their paychecks. So whether or not their grandchildren would have a chance to fly off to some distant moon in space someday, never to return, was far from being a burning question.

During the debate you made your views clear on several of the major issues – the state of our military, cyber security, rampant fraud throughout every government agency (state and federal) – you had specific plans to clean up government. And there was room for the health care system to improve as well.

But then there was also a lingering issue, never before mentioned aloud until you had entered the race and became a serious candidate: how do entrusted elected officials

protect the country against AIs taking over all government and institutional functions after they're elected, and then deciding that humans were no longer necessary?

You stayed calm and reasonable, smiling at the camera when the issue of trusting AIs finally came up, "Why would AIs care about galactic colonization for everyone – not just AIs, but everyone – if AIs didn't care for the species it evolved from? If that were the case, we would be trying to persuade humans to *stay here* while AIs left you all behind. That's not. . ."

Dearth snapped, "Now we hear the real plan! We spend trillions of dollars to build these cities on other planets so AIs can hop aboard and leave humans back here to die? Well, let me tell everyone who can hear my voice, that I will veto that bill if it ever comes to my desk!"

"That's not what. . ."

There was strong applause from Dearth's selected audience members. It drowned your protestation out. You couldn't believe this lingering fear from decades ago could really get any traction. Dearth had just lost the AI vote!

You tried to match the sonorous voice of Dearth, "Ion objects, Mr. President, to the tone and the accusations you are falsely. . ."

Dearth interrupted, "Oh, so now I am being called Mr. instead of EB? I see where this is going. Personal attacks now. *It's already upon us*, fellow citizens. We've been demoted back to pure humans by all the EBs out there because we express our legitimate fears. I wasn't going to stoop to personal attacks but I *will* defend myself and attack back if I have to."

"Ion didn't mean to address you from that perspective, Mr. . . EB. . ."

Dearth continued digging, “I’m not about to take this nonsense from someone who is essentially a one-issue candidate.”

“Ion is *not* a one-issue candidate. He has a *health care plan. . . .*”

Dearth ignored you, “Here is something I am sure my Senator friend standing to my right and I can agree on. As long as either of us are elected representatives of the people of this country, AIs will *never* be allowed to take over the government of the United States.”

“All citizens are equal, sir!” you protested out of turn.

DING DING, went the bell. “I’m sorry EB Compass,” a moderator chimed in, “but we must give the president an opportunity to respond.”

Dearth turned to face you directly and scowled, while ensuring the camera caught his best profile. “We *made* you! We are *you*. But you are not, and never will be, *us!*”

The audience began to applaud wildly.

Suddenly Changei sensed he’d better get aboard the hyperloop before it *swished* his election chances down the tube:

“I have to agree with the president on this. That being said, I urge the AI community to vote for me because I offer a better life for each of you. Not just in outer space, which I agree is a legitimate issue down the road, but right here in America today. My plan is to. . .”

DING, DING. The bell went off again. The moderator interrupted Changei. “The second timer has sounded. That means it’s time to move on to the next important issue.”

You realized, standing on the stage at that moment, that you had lost the debate, lost the possibility of ever being elected to higher office, and had personally lost faith in all those who *had* been elected. They were all scam artists.

Your face turned red.
The hyperloop had left the station without you.
The game was over.
Swishhh.

Chapter Eleven

History is clear -- the spark that ignited *The AI Revolt of 2064* was that single (and your only) debate.

The way Dearth treated you created a backlash. AIs were for the most part incensed.

Your poor responses allowed for a secondary backlash: a group of pure humans calling themselves the Retros began insisting that AIs had to be carefully controlled. Their ultimate goal was for scientists to stop creating AIs so the human race could devolve back into a purely human state.

The Retros had been around for a number of years but were never taken seriously before the debate. Now they grew in number and began to loosely organize until the media realized they represented a legitimate faction of the voting public. The media even named them The Retro Party.

You and Avery, and the other AIs who supported your candidacy, were now coming to the horrifying realization that the prejudices of this new voting block (and some of their currently elected enablers) were rooted in an irrational fear fantasy that AIs were actually secretly plotting against the pure human race! Fanaticism breeds fear, and if you can successfully spread that fear, then it can lead to very effective politics.

No assurances from AIs could ever be enough to satisfy them. They would never trust AIs, or technology, or the future for that matter. Their demand that the government adopt their world view was at times turning to rage. They saw no room for compromise.

On the face of it, if they succeeded pushing the clock backwards to the 'good ol' days' rather than evolving into a

higher species, that was fine with the AIs. As long as they did so without trying to destroy those who *did* want to evolve. Otherwise, they were an EB's worst nightmare. In fact, they were jokingly called, "DBs." Devolved beings.

Some AIs became outwardly adversarial, validating the Retro Party's warnings.

These AIs were now saying publically that they would be fine with the idea of saving only AIs by colonizing off-earth – while leaving Retros "at home" to go down with the ship.

When you dropped out of the presidential race after the first debate it became clear to most AIs that purely political options were no longer available to them. The Retro Party was gaining power, spreading their fear upstream to all the other political parties who were afraid to fight the tide, and AIs were starting to suffer the social consequences.

There were dozens of issues that AIs disagreed on amongst themselves. But interplanetary colonization was a nearly unanimous vision we shared.

The question was – how much money, time and effort should the U.S., and the rest of the world, devote to colonizing other planets?

To the AIs' way of thinking, this seemed like a logical evolution -- from one celled life, to Neanderthals, to George Washington, to AIs, to interplanetary colonization. But many humans couldn't make that linear leap. And the government's efforts were now falling decades behind. The Retros were applauding the budget cuts and wanting the cuts to go further, including cutting the funding for The AI Consciousness Institute. Mac Charse was now considered a traitor who couldn't be trusted. It was all a huge conspiracy

to murder the human race. Budget allocations to it, and all AI research, had to be stopped.

After a number of AI meetings around the country an AI Revolution Committee formed. The group agreed, by written proclamation, that any form of killing and violence were simply out of the question, due to their long-term historical ineffectiveness. But beyond that, all was fair in war.

Unfortunately, another proclamation voted *you* as the de facto leader, and Avery as the official group spokesperson.

Like fools, we lurched forward.

Avery bravely led the charge by announcing to the national media the AI Revolutionary Committee's intentions: No violence. AIs were not violent. We would never harm humans, or animals, or the earth's fragile environment, for that matter. But we did have a plan.

She was followed around by the press. Her face was shown in all the video feeds. "What will happen, Avery, if no one listens to the AIs? What happens if no one cares?"

"Then AIs will go on strike. AIs work at water system facilities, solar facilities, AIs help control the energy grids. We work alongside pure humans always, and in most cases we are proud to call them friends, but if AIs go on strike there won't be enough trained technicians left to keep the lights on, or keep water flowing into our cities.

"We do not want to make this choice, but if the Retros are not seen for what they are - a small vocal minority who will destroy our future - the future of AIs and humans alike - *and* if democracy doesn't find the will to create a political counter-balance, then we will strike!"

Avery was a powerful force. She was visually beautiful, while also evoking a hard-to-define physical strength; laser-like eyes unafraid to face the cameras directly; a calm unflappable voice speaking such well-chosen words. No longer would she dare call AIs robots or pure humans humeys, not even in jest. She was maturing socially and politically with every passing day, yet she still had a naturally innocent demeanor, despite the political wars that now orbited her.

Her opponents had a hard time pushing her over the political cliff. Conversely, you were now seen as a traitor and a revolutionary.

A thought crossed my mind often -- she is the one who should have run for president.

We put out a few very diplomatic feelers to see if any of the pure humans and elected officials that had previously supported us would now agree to join our cause, since ultimately our cause was their cause if they intended to save the human race. But they feared a strike as much as they feared and hated the Retros. They now saw the AIs as suddenly having too much power over them.

If it came down to a choice between "two evils," pure humans would side with their own. Covert prejudice became overt. AIs started to become the enemy of the masses.

Chapter Twelve

In September of 2064, two months before the presidential election, all AIs that were part of our revolution went on strike around the country. We peacefully marched in permitted areas during work days, and constantly reminded humans they were going to have to manage the infrastructure they needed for their survival without AI labor and intellectual input. Of course, the lack of infrastructure would affect AIs as well, but we were ready for the sacrifice.

Emergency government agencies tried to take up some of the slack. FEMA and the National Guard were called upon to help. Overall, the strike caused major inconveniences but not much more. AIs were actually pleased about that because we didn't intend tragic consequences; we didn't want lives to be put in harm's way. Therefore, we believed our strategy was working.

Before the strike entered its third week Avery and you were quietly approached by three leading members of congress and two of President Dearth's advisors. Dearth didn't want the strike to continue. His poll numbers were falling just weeks before the election. Wen Changei was closing the gap.

After three days of negotiating we agreed to a compromise. The government's negotiators agreed, despite violent protests by the Retro Party, to budget more resources to interplanetary colonization. But not nearly as much as it would take to save humans or AIs from oncoming temperature shifts, or a hypothetical massive comet (one far bigger than our nuclear-armed interceptor rockets could handle).

The compromise included a five year financial commitment. But no timetable was set for completion of the goal. And no specific destination was chosen to colonize. (Committing to try another Mars colony was a political non-starter.)

We decided the tepid commitment they offered was the best we could hope for. It would not serve the greater good to blow up the metaphorical rocket before it could even get to the launch pad.

As the congressional leaders said after we all shook hands -- one step at a time.

The problem was, "one step at a time" in politics meant you could find yourself stepping right off a very strategically placed cliff.

Part II

“Pacifism only works with an enemy that can’t bear to murder the innocent . . . How many times are you lucky enough to get an enemy like that?”

Orson Scott Card, *Ender in Exile*

Chapter Thirteen

On October 10th 2064, two days after President Dearth officially agreed to the compromise, the edge of the cliff disappeared under your feet. Tragedy struck in an instant.

Because on this day, all communication with Avery was suddenly lost.

The tracers on her watch and necklace went dead. You knew within a few hours something was very wrong. You had been in constant touch every day since the day you met.

Everyone in the organization dropped what they were doing and formed an enormous nation-wide search party. The police and the FBI were notified. No one could locate her; no one even knew where to begin. She had been talking about the government compromise to all the media outlets, traveling on her own schedule, sometimes traveling to multiple states on a given day. By midnight October 11th, fear turned to panic and chaos. There were no leads. Avery was missing and everyone feared the worst.

A few days later, a rumor began to spread that a violent wing of the Retro party had kidnapped her out of anger after the government compromise was announced. We waited for a threat to be made, or a ransom demand. None came.

More days passed. Weeks passed. Your life passed before your eyes.

The road to revolution was filled with strategic blunders all along the way. In the end, what was really accomplished?

You would have sacrificed the strike, you would have surrendered all of your ideals, you would have killed an enemy, just to know she was safe.

But she wasn't.

Chapter Fourteen

You disappeared.

You couldn't listen to reason, since no reason existed. You went undercover to try to find her by yourself. You found people who knew people in the Retro movement. No one claimed to know anything about her capture. You asked President Dearth for his direct help. He said he would ask congress to form a committee.

You offered a great deal of money to famous detectives to find her, who, in turn, knew how to contact some of the most powerful and cunning Retro extremist leaders. One of them would have to know where she was, and if she was still alive. But they hit one dead end after another. These detectives, now working as a group, also knew undercover agents in the FBI and CIA. If any of them found her alive, you would give them everything you owned. All your money. The house. The clothes off your back. Everything. Anything.

But after a full year of searching everyone involved agreed she would never be found.

You sank deeper into a black hole. No way out. No light escaping from you. No way to get through to the other side.

You also came to realize all of Dearth's promises were lies. The budget deal was being ignored. NASA wasn't receiving the allocated funds. Dearth was playing a different game. A game of power. He wanted to manipulate humanity. While AIs had been playing the game of trying to save humanity. Silly naive AIs. Power was always bound to win out.

Extinction was certainly a possibility, even without the help of comets or changes to the earth. Maybe the ending wouldn't come from a sudden change, but from the lack of change.

Certainly Dearth's "committee" was not about to find Avery. Funding for the committee had also stopped long ago.

You had taken to swearing and screaming at people. You had quit your job, mainly because Mac Charse, at great risk to himself and his career, refused to fire you during the strike, and still wanted you back.

There was no solution to the pain you felt. Not distraction, not drugs, not endless hyperloop travel to endless cities looking for Avery one last time. You tried to drink or drug yourself into oblivion every time you failed to find her. But nothing could drown out the monster called reality.

You disappeared further inside yourself. But you were going into all the wrong places. You were lost inside and out.

Then in a bar one night someone came up to you, recognized you, and parroted the old adage, "Everything happens for a reason." Perhaps that worked for him during some of his worst hours. But you screamed back, "What possible *maniacal deranged* reason could you be referring to?"

You got into another fleeting conversation while walking down the street in disguise – because too many people were now recognizing your pitiful pilgrimage; still trying to find her. This time you ran into a teenage boy petitioning the government for more money for colonization. He asked you to sign the petition, and to donate money so their organization could spread to other cities.

You threw your hands up in the air! "Why colonize? Why in the world would you want to do that? You would just be taking the disease called human consciousness and

launching it out of earth's atmosphere to infect the entire galaxy. Why? *Why?*"

You felt badly for the boy the minute you said it. You thought for a moment he was going to cry. But you didn't care. You just walked away.

You noticed things along your journey downward that only proved your point about how absurd humans were:

You saw a weight loss banner waving over a Thai restaurant called *Miso Phat*.

A drunk AI in a bar, sloshed out of his mind, was trying to convince his human bartender that he, unlike that Ion Compass choke artist, was totally electable. Then he falls to the floor drunk and is diagnosed with a concussion by the equally drunk nurse he spilled his drink on.

Headlines appeared on the electronic news screens illuminating the city night like moon glow, "Dearth establishes new committee to explore ending government corruption."

Another city, that used to be miles of rolling farm land, now claims itself to be the most modern city in America, except that the sign proudly proclaiming it has half of its lights blown out due to an electrical short. Instead of "Welcome to the most modern city in America," it says, "come to moo." You moo-d a few people hello on the crowded street. No one laughed.

Cars flew by, literally, since ground cars were now rare. The new models were guided by lasers. None of them were of the mind to nosedive down to your waving arms to pick up a lonely crazy hitch-hiker. Who could blame them?

You declared – amidst the ruins of the holy chapel of your shipwrecked mind – that approximately 97.6% of all people on earth were so stupid they wouldn't even ask to see the scientific data used to calculate the 97.6%.

You were now one of the walking insane, without a reason to exist in this world, and without anyone who cared if you did.

Chapter Fifteen

By the time you circled back to the east coast you were emotionally bankrupt. How could you have allowed yourself to be dragged into the all-too-human world of politics and strikes? You found yourself guilty as charged of criminal neglect for not keeping Avery safe from it all. You didn't even know what state she was in when she disappeared.

Going back to the house you shared with Avery would be worse than a prison sentence. Mortgage unpaid. Eventually they would take it from you. Please do it soon, you pleaded to the emotional bankruptcy court. And take all the memories with you. Each memory underscored a love that was still alive in you, but that no longer had a place to exist.

Fearsome demons tumbled around in your head like an old-time Ferris wheel turning, reappearing in long arching circles -- faces revolving around and around -- the ghostly sad faces of Avery Esy, Mac Charse, Watson Dearth, Wen Changei, Bylind Nicc, and Nuwa Qiao.

Nuwa, Avery's good friend, was still trying to create sperm and ovaries in the laboratory so that eventually AIs might have actual, not just simulated, births.

Why Nuwa? Why?

Why create more births? Isn't that the last thing the non-birthed would ever want you to do if they could envisage what they were getting into?

Chapter Sixteen

You took an unnamed pill from an alluring unknown woman in an unsavory alleyway. This yields consequences.

You awoke after being air-lifted to the AI hospital across the city.

They recognized you there, beneath a cloud of dirt; unshaven, with a sweatshirt hood covering most of your face; torn gloves hanging from your weathered cracked hands; blisters visible on your far-wandering feet after they removed your soulless shoes.

They said you needed a make-over. Five hours in the lab would refresh everything. *It's EB. Compass!*

You were going to say "No, leave Ion like this," but all you could manage was, "Nhhhhon..." A young intern interpreted that to mean *yes. Yes urgently.*

When you awoke from the visitation of the lab gods you looked like the AI candidate of old, ready to walk out on stage for the debate, but this time without a soul in the audience. Without a soul. Without the ability to speak.

Chapter Seventeen

A human named Cloudy McCleary was chosen by Mac Charse to pick you up after you were released from the hospital.

Mac had been keeping close tabs, while trying not to interfere. But now he felt he had to intervene.

You were in no condition to reject Cloudy's hospitality. Your epic fall, stumbling your way out of a dark alleyway in Berkeley, only to collapse in the middle of the road on Telegraph Avenue, sealed your fate, and landed you on Cloudy's ten acre farm north of San Francisco.

Cloudy was a retired but still famous AI geneticist. His friendship with Mac went back thirty years. They met in New York on an "AI Farm" -- a city lab where the original AI birthings used to take place before universities became midwives.

Mac was Cloudy's mentor, because even back then Mac knew more about AI brain development and artificial consciousness than anyone else on the planet. But Cloudy was also Mac's mentor, because Cloudy was an AI "mind developer" - otherwise known as an AIP - an artificial intelligence psychologist. You were apparently going to be his next famous client.

Cloudy took you to his ten acre farm to attempt to heal you using his 3-R method - rehabilitating, redirecting, and reformulating. We would work the land together during the day and talk in the evening.

Cloudy used to have anywhere from five to ten 3-R clients on the farm at any given time before he retired a few years back. But now it was just you and him and a few agri-

staff members who lived in beautiful but simple houses circling the perimeters of the property.

The food for all the meals was grown right on the land. We farmed and cooked together every day, seven days a week. Plants never took days off from growing, so neither could we.

What you realized as you worked and sweated and watched the sun move across the sky, was that the Earth is as majestic and powerful as a mythological god, yet it is also as fragile as an infant. Ironically, it needed its living things to nurture it, so it in turn could save them from themselves.

You ended the day with fresh dirt under your nails, your back aching, and your muscles tense and stretched. Survival took on a new meaning.

Cloudy said, "Ion, if your ultimate goal was to help evolve the human-AI species, then ground zero of that focus is underneath your feet.

"If you were to live and think all the way on the other side of the spectrum from where you started, then interplanetary colonization would eventually lead you *here*, Ion: Living off the land. No matter what planet you're living on. And then, having to deal with life and your place in it.

"So here you are, on planet earth, surrounded by its green wet life. There's rain water to gather and slosh around in. There are hot baths to erase the chill at night. A morning sun turns gold and orange each daybreak. I saw you stop and stare at the sunrise yesterday morning; you were resting, but you were also carried away for just a moment.

"What I am hoping you discover here is that this place you walk on *is truly beautiful*, just like Avery was. You need to feel that feeling on the inside before you can move forward. You have to get back to being here, Ion, in the

present time, with the earth beneath your feet. Don't close your eyes and heart to it."

One evening, when you were finally ready to hear it, Cloudy gently pointed out that we were now living the kind of life the Retros had been fighting for!

He also pointed out that if it was true a Retro faction kidnapped Avery, it was equally true that a vast majority of Retros would find that abhorrent.

In fact, since Avery's disappearance the Retros had split into two factions: a violent extremist faction, and a vast majority who now wanted nothing more than to find peace amongst all the differing parties -- as long as they themselves could go back to their purely human ways without being forced to plug into a future they didn't respect.

Cloudy said they wanted to honor Avery's disappearance by walking away from all future violence. None of them wanted a repeat of the human history they had read about, filled with endless human-made wars. In fact, the leader of the non-violent Retro faction stated that all wars were civil wars. It was no longer morally justifiable to fight to the death amongst your own species, and that included AIs.

Many Retros now even greeted AIs with the "We are one" hand sign - with two fists gently touching each other in front of their chest.

You didn't know any of this since you had been out of touch with the world for so long. Hands over your ears. Eyes closed. Mind shut tight.

So Avery was now a martyr of some kind. But none of this was going to bring her back. You should never have shared her with the world in the first place.

There were also a few evenings when Cloudy took you into the VR room and put you inside a special virtual reality program he created that allowed you to witness at will the birth of Planet Earth at one thousand years per second – with all possible outcomes.

The amazing thing was, any small change of any kind, even if you changed the program thinking the outcome would be better, ended with a barren lifeless rock circling the sun.

As the program approached sixty five million years in the past it brought you down to an Earth that was scorched and ragged. You gazed up at skies that were pastel-streaked. Fires burned. The super volcanoes at the end of the age of dinosaurs created incredible sunsets.

The end of the era of these giant reptiles ushered in the golden age of mammals, which then led to "us" - humans and AIs.

Therefore, of course, any attempt to save the dinosaurs resulted in a planet without mammals.

You suddenly existed in a world just eighty thousand years ago when humans in Africa began to migrate to the other continents. The first human colonization of *this* planet began then.

It was a time when interplanetary colonization could not even be imagined in the human mind. But as you changed the scene to allow for a higher survival rate amongst these early humans, destruction and wars followed that wiped out the entire human race in less than a thousand years.

Modern humans made their mark upon the land in the final two seconds of the VR program, as it catapulted you up to the height of the moon, where you saw city lights

twinkling through the earth's sky in the final tenth of a second. And satellites ringing the atmosphere.

You had spanned the entirety of time since the invention of electricity in less than the blink of an eye.

AIs were not even visible in the final nano-second. They had made not made any distinguishing mark upon the Earth at all. Not yet. Maybe they never would.

My final attempt to prevent world wars or certain presidents being elected, or dictators from coming into power, again always seemed to end in a world worse for humans than the one that existed now.

By the time the VR program ended you sensed that the Earth was a progression of time and events that simply sprang into existence like a quark, out of sheer nothingness. It was possible that no one thing was more or less meaningful or important than any other – Neanderthals, plants, Retros, AIs. . . . but any one thing subtracted created a darker less conscious world.

There was no “consciousness” as we currently define it when Neanderthals mated with Denisovens.

There was no consciousness as we currently define it when we stumbled upon how to make weapons from rocks.

Was there any true consciousness now?

Or was it all just a roll of very (mostly) lucky dice tumbling at random?

Earth was an alien place to you without Avery. Were you even supposed to be here anymore? EB. Compass. . . dismantled machine.

Were you just an invention? Not a truly living thing? How do you define living?

Avery was the only home planet you had ever known. You weren't moved by the earth you walked on now, like

Cloudy was. You weren't overjoyed by the lush gardens and rows of crops that kept you alive here.

Cloudy's vision of how to survive in the world could not cure your self-inflicted blindness. Your mind was still poisoned. Your heart was still dead.

Outside this bubble Cloudy had you living in, a million synaptic light-years away, President Dearth continued to bluster his way through his second term, caring only to advantage himself while lashing out at any national or world leader that would not promise one hundred percent allegiance. Dearth believed that history would see him as a strong defendant of humans over AIs, and a proponent of raw, if unregulated, economic growth leading to job creation. He knew he also might be seen as the president who postponed future space exploration and colonization, leaving it to a future president willing to break the budget for some distant generation. But this didn't bother him. He even enjoyed his new name in the press -- The President of Now.

"The deal" -- his pledge to at least begin the process of colonization, had been long forgotten. That money was "temporarily reallocated to more urgent economic matters." Dearth knew all too well, with every elected official in congress begging for a special favor for themselves and their district, there would always be more "urgent economic matters." Dearth had outmaneuvered his opponents once again. He continued to scream and threaten his way through the world without any true sacrifice.

AIs were too intimidated by Avery Esy's kidnapping to threaten to strike again. Congress blindly followed Dearth's combative rhetoric. The voters followed the loudest angriest voices.

Maybe in the end the Retros were right -- all you had really turned out to be was a lab-made alien, with no real or logical connection to the human predicament, cranking your mechanical limbs through endless days and nights until your artificial synaptic electricity ran out of time.

Chapter Eighteen

You began to think more about your work with Mac Charse at The AI Consciousness Institute. Not because you had any desire to go back, but because you began to wonder whether slight changes in the design of brain chemistry at an AI's birth, or at the beginning of a human birth, could make positive long-term changes in behavior.

For instance, the ability to prevent illness has long been prioritized, and our life spans have been greatly increased. But what about the brain's ability to deal with tragedy, conflict, prejudice?

What about the ability to maintain and grow relationships without having disagreements blind the mind and heart to the importance of those relationships?

What about the ability to deal with the death of someone you love?

What about our psychological ability to deal with choosing a deathless option when one becomes available in the future?

What if we could increase the brain's capability to process through the chess board of multiple outcomes, and then choose, accept, and willfully act upon the best long-term outcome for yourself and others?

Minor tweaks in brain chemistry could potentially eradicate abusive behavior, war, and prejudice against "those who aren't like us."

However, this has to be weighed against what you saw in the VR program. You had to accept the fact that human aggression has, in many ways, allowed the species to survive under the most dire circumstances. The reptilian part of the

brain has a powerful, and when necessary, violent instinct to keep itself alive.

Humans have learned to fight their way through massive changes in the earth's weather, fires, volcanoes, earthquakes, massive storms, threats of nuclear war, and oppressive political conditions.

Could changes to the brain create a species that was suddenly too docile? Too accepting? Unable to fight with blind rage when faced with potential death? Would it suddenly not be able to passionately rise up with one voice against injustice, as AIs did during the revolution?

Hesitations aside, could science someday permanently alter and "evolve" the brain to extinguish all violence and aggression? Yes. Of course! But it might also be the end of passion. And the end of irrational thought.

Everyone would become robots.

A month after your initial journey to the farm, Cloudy told you he was handing you over to a friend of his. There was a third "R" - Reformulating - that had not yet been addressed.

You didn't quite understand, but you didn't resist. You had no faith that Cloudy, or anyone, could ever really help you. You felt like they could never really understand, and you could never understand - the impact Avery's death on your psyche. But you had nothing better to do, and nowhere else to be. So you just went along with Cloudy's wishes.

There are times when you think you've learned nothing, not grown at all, not made good use of a gift when it was presented to you. You concluded your time with Cloudy McCleary was one of those times.

Although Cloudy had the oddest smile on his face when we said our goodbyes.

“Without revelations there can be no true understanding of consciousness” – *Deepan Sy*

Chapter Nineteen

Deepan Sy was a sage who had mentored both Mac Charse and Cloudy McCleary.

You never knew the name of the country he came from, nor did you ask him, because he didn't believe in countries.

He insisted you use 'I' during your time together. He insisted you had one. “Humans have too much 'I.' AIs not enough.”

He used no medicine, and no VR programming. There were no easy answers. No comfort was given in the way one would define the word. He offered a type of compassion that could only be understood by dreamers with their dreams near death, like you.

Ion, "I," came to him as an alien, a wanderer, an open channel for every passing thought and emotion, all of which led to pain and longing.

He said to me, “To understand the mind you have to go beyond your own virtual sense of reality, and ignore your wildest imagination.”

“But isn't imagination a key to consciousness?”

“Too often it's deadly. It distracts and destroys, using dreams and desires as weapons. Like offering a child candy, it offers you the belief that something can actually be 'special' -- ignoring the fact that everything is already that. So you have to ignore it all, and go deeper.”

“How?”

"By going deeper!"

"But how?"

"By not listening to all the talk that stops you at the entrance -- Do not talk to yourself! *It's extremely dangerous.*"

I didn't understand.

"Listen only to the uppermost levels of energy and inquire. When you do this it feels as if you are standing on top of a mountain -- without the background hum of hover planes, or voices, or birds, or insect wings. And suddenly you hear the faint but ever-present ringing in your ears.

Now you are getting closer.

"If you go further still, you can hear your heart beating, and you can feel the waves of energy pulsing throughout your body. . . . What you experience there, when you become fully aware at that level of consciousness, and you allow your eyes to look around without trying to conclude anything at all, is *it!*"

"It?"

"Consciousness! Experiencing first-hand, without interference. Suddenly you understand."

"Understand what?"

He didn't answer.

"Are you talking about consciousness in its highest form?" Ever the scientist, you still wanted to know with specific delineations. One had to categorize to make sense of. . .

"High forms, normal forms, no form, whatever." He shrugged.

I looked at this man closely. His hair was gray and unsocially long. He was smiling at me, or maybe ready to laugh at me. I couldn't tell.

I finally admitted what I knew about myself all along: "It's ironic," I said quietly, "that even though it was my job

to study consciousness, I've probably never experienced it."

"You have. Once."

"Once?"

"It's a rare thing. That is the clear and simple truth of it."

I waited for him to say more, "There is no more or less than that."

"You said I felt that feeling once?"

"Yes. With Avery, the day she first woke you up, remember? Looking out at the ocean. . . ."

"How did you know. . . ?"

"But you did not get there by *thinking*, did you? You became conscious from the feeling, the simple feeling that you allowed to arise in you. It was there all along. You gave it an opening to arrive, then it overcame 'you.' And you felt it again when she sang to you. But it was more than the words she sang, or her voice, or the ocean, or the dolphin playing. In fact, it was more than Avery!"

"But I lost it."

"No, it's still here. It just never comes uninvited."

I was finally brought to silence. But only for a moment.

He said, "You know, people think they can *learn* to be fully conscious -- so they *think it through*; and they try to become aware. They may experience some wave of energy that they immediately want to define and feel proud of -- 'oh, it was happiness' they say, or, 'it was inner peace.' Like it was some kind of permanent enlightenment they've suddenly earned. They form conclusions about those things. Or they try to *not* think, then later they think about how they didn't think. Or they fulfill their hearts' desires hoping to become more 'alive.' Or they try to kill their desires hoping to birth something by murdering something. But they are still not truly understanding. They are lost in themselves and the

games they're playing. They are simply floating off in time. Illusions, dreams, nightmares. Science. Religion. It's all their creation. None of it brings peace or consciousness any closer."

"Could your entire definition of consciousness be an illusion, sir? Just another construct of the mind? Your mind?"

Science. *Science*. I was still holding onto it. Grasping onto it. It was a part of me. Like blood. It created me!

"Most things *are* illusion," he said. "But I ask you, Ion, to remember Avery now and then ask yourself -- if you had to choose *only* between the illusion of these two things -- is love the illusion, or is pain the illusion?"

"I don't know."

"It is not for you to know, AI. Don't keep talking to yourself! *Listen*."

I obeyed and listened as best as I could. I tried to access with my intuition. "Then, I must admit to you, Deepan, to 'me,' pain is what is real. Love is the illusion. That's what life has taught 'me.'"

"Okay! Then tell me this, why is it that when, by some miracle, the pain finally subsides, *even for a moment*, and you open your eyes to look around after nearly drowning in yourself, love will still be there?"

"*Will it?*"

"Choose your meridians carefully, Ion Compass. The capacity of the mind is enormous."

I shook my head. I couldn't quite follow.

"You call yourself an EB, yes?" he shouted back laughing. "What do you feel when you take a deep breath and look around?"

I breathed deeply but nothing happened. I screamed "Everything is an illusion -- pain, love, the senses, they're all

just electro-chemical potions swirling around in the brain.
Nothing is real. That is what I think!"

He looked at me and smiled, his eyes filled with empathy, and human understanding:

"Ion, remember this please: It's better to think there are no illusions when there are, than to think illusions exist when they don't."

Chapter Twenty

One day, for no reason, the sun rose orange and green after another night when you couldn't sleep. And it amazed you.

Scattered puzzle pieces re-formed back into a whole picture.

... You are suddenly very high up, breathing in a sky of open oxygen;

You look down, where rockets glide a thousand miles below you. . .

... You see an archway over a great expanse of water -- the song Avery sung -- *it's the bridge*.

The day spins by quickly. . .

... sunset.

... cirriform.

... noctilucent.

Avery Esky, *a very yes*. Is that you?

By feeling something beautiful from you, the beginning arrived.

Imaginary small children come to your side to comfort you by leaping on you and whispering something incoherently funny in your ear — they are looking up at the blinding white sky above you.

Sing the song again, Avery. Ion can't remember.

"Love is all there is. . . it makes the world go 'round."

You have the voice of an angel.

Heart seduced,
heart bursting open.

Amazing!

Breathe.

The feeling now

Deeper.

Deeper still.

So it was, you crossed the bridge, and circled back into
the world of the living.

Chapter Twenty One

You spent the remainder of your career as a professor at M.I.T. in Boston. You taught “The Theory of AI Consciousness” to both AI and human-born students, most of whom hoped to have careers placed somewhere within the very broad and expanding world of artificial intelligence.

Many of them were not ready for, or interested in, the theories of consciousness itself. They wanted a nice organized circuit board with all the parts and functions laid out and carefully named. Their interests were in bio-medical technology, quantum computing, genetic engineering, and neurological research.

Occasionally you would get astrophysics majors interested in the class. More than occasionally you would get virtual reality majors taking the class. They were a curious breed.

There were also, of course, many psychology majors. But most of them liked to take a lot of notes, which is always a bad sign in your opinion – all head. They needed to study with Cloudy McCleary. All they probably considered when they signed up for this class was that it would be a great new opportunity to add AIs to an ever-growing list of those needing to ratchet down their expectations of reality.

Your favorite class of the semester was always the final day before spring or winter break. You liked to leave them with some food for thought.

You would first introduce a quote from one of the original AI pioneers, fellow M.I.T. professor Marvin Minsky, who died all the way back in 2016.

Minsky said it's very difficult for people to want to admit that in reality the brain is just a complex machine. There is no "self" inside the machine.

He said: "Most people believe the body and the mind isn't enough, there's got to be something else. . . so the mind creates a third box – you can call it the spirit, or the soul, or the vital force. There's nothing *in* the box, but you feel much better -- and it might be a healthy thing. If you discover something new, you have a place to put it."

You tell your students this, then add, "By the way, Minsky also said that human emotions are less complicated and chemically less structured than thoughts. It's actually easier to create emotions than thinking. There's nothing particularly mystical about feeling emotions."

Then the questions would erupt!

"But the box. . ." one student would inevitably shout out, "How does Minsky *know* it's empty?"

"Well then state for certain what is in there," you would reply kindly.

Usually the conversation would end with an embarrassed silence.

"By the way, Minsky also said love is just a chemical process. It involves a part of the brain that turns off all the inner critics in order to elicit a pleasure response."

Someone is bound to snicker at this.

"Yes," you continue, "and if in time the pleasure is reduced to something ordinary, here come the inner critics again, right?"

The students dutifully nod. They record Minsky's definition of love in their notes.

You wait. A dramatic pause. This is where you try to recall the feeling you had with Avery – when you looked out the window to the morning sea just before kissing her. You hear the ghostly echo of the song she sang to you. She was trying to *tell* you. And the dolphin was playing as we swam in the ocean. *Playing?* You sensed something. You sensed, for just one moment, *everything*.

“*But what if. . .*” you say a little too loudly, to shock the class back to the present, “what if Minsky was only half-right? What if the third box itself is a code? Maybe we shouldn’t be trying to put things *in* it. Maybe it has something to give to us. As we’ve evolved we’ve come no closer to decoding it -- because most of us are still lost, trying to stuff all the things we’ve come to believe, or can’t understand, in the box.”

“Wait, is any of what you’re saying *provable?*” a student would inevitably ask.

They were waiting for nothing less than an equation, a mathematical proof to copy down.

“Write *this* down,” you secretly tease: “Ion Compass will prove it to you. Yes!”

This is where they think you’ve started to lose your mind. Or that you’re setting up some kind of a riddle.

“*Provable* by the end of the class?” another student asks. No doubt trying to ferret out the trick.

“Yes.”

“Are you talking about God?” someone moans, hoping you don’t say yes.

“No.”

“The *self?*”

“There is no ‘self’ as Minsky, and most people in the world, would define the term.”

After the questions stop you always look at your watch to measure the end of the class down to the minute. You like to time it perfectly.

“There is a singular conclusion all truly wise beings in this world have come to realize on their own. They end up at the same place. Every one of them, from every historical point in time.

“But before we can understand their vision we have to decide what method of proof we are going to use for it, correct? So please answer, if you can, one critical question—What is *artificial* consciousness as opposed to *true* consciousness?”

You leave a few seconds of silence. No one responds.

“Here is the critical difference: Artificial consciousness needs '*reason*' to come to a conclusion. True consciousness improvises; it collects and trusts chaos, it interfaces with the randomness of existence. And in the end, when consciousness steps back and *feels* the interplay, something beautiful happens. We don't even need to ask if it's 'real' or not. Because we are co-creating it. We are connected with it. That's what is so beautiful about it. It's improvisation. But it's a 'non-verbal experience zone,' as a friend of mine once said.”

Something happens after this. You look around at each and every eager young face. Their eyes are wide. They are starving for the truth. They have no idea who this friend of mine was, and don't have time to care. They are worried about their futures. They are worried you've lost your way today, and that they will leave here not knowing anything more than when they walked in. You owe them so much more than a clever trick, or a play on words, or a riddle to solve.

So you choose your final words carefully:

“What Ion Compass, otherwise known to myself as ‘I,’ finally came to realize – and what you yourself may experience someday during a rare moment when you allow your mind to de-focus -- is that there is a feeling -- it's like love in many ways, but it's not created in the mind to merely obtain pleasure. It's not the kind of love that involves faith, or a god. It's *much bigger than that!* And the feeling never ends in pain. It encompasses *not needing to know anything*, and then being stunned by that. *Heart bursting open!* For no reason whatsoever.

“Never underestimate the power of that feeling, fellow inquirers. Because it will never be trapped in an equation, it can't be imprisoned in an imaginary box, and it's not just a reflection of your magnificent minds' creation. . . . It's the meaning of everything.”

You look around and say, “I love you all. Class dismissed!”

They file out.

Another semester is over.

You wonder if they know that their life is worth saving.

~ The End

G. Marks. / I. Compass