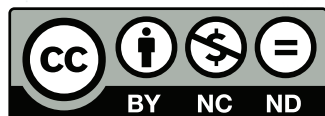


# Jim and Joe

Chichi Lalescu



2020 Chichi Lalescu

# 1

When I got home, I sat myself down to start writing. It was raining outside.

I had to write it down. I had to get it through somehow.

I got up and called him, and I said “Joe, I gotta write this book.”

“I know, Jim. You told me.”

“I gotta make it understandable.”

“Yes.”

“I have to understand it.”

“Yes.”

“What?”

“It’s two in the morning. We were talking about this, and we went home because it was two in the morning..”

“I’m sorry...but do you understand I have to write this?”

“Yes. But I’m going to sleep now, Jim.”

And he hung up.

‘And it’s gotta be complicated. I mean complex. No, I mean elaborate. No, I mean interesting. Interesting, because if it’s not interesting people will stop reading. I hate people. I have this thing to talk about. I have the world to talk about. Dam it, only quantum physics and it’s enough to never understand, but that’s only the beginning. And people only care for interesting things.’

So I stood at the window and looked at the rain. ‘Do I hate people? I might just despise them. I hate it when I get angry about this. Hating it makes me angry too. Quite the predicament. I like the

word predicament. I should use it in the book; it's funny somehow. Why do people think some words are funnier than others?

It wasn't that dark outside. It was dark, it was raining, but the lights of the city were lighting the clouds. 'I wonder if the clouds contribute to the electricity bill. If I think about it, they do bring water and people are fond of water. Yeah. I should also use *fond of* when referring to something vital. It's so easy to think of funny things sometimes. Too bad I can't do it while talking. I should be grateful I don't write like I talk. *how I talk?* I have to write this.'

A car passed through the rain. 'splash splash. Maybe words are funny because we use them in funny situations. Leave it to me to state the obvious.' I sat down. I like to watch the ceiling from time to time. 'It has a certain finality. No. whiteness. *whiteness* is stupid. not finality. great writer, can't find a stupid word for an obvious feeling. wholeness. yeah. definitely. *definitely maybe*. where the hell did I hear that?' Writing can be a very personal experience. 'Reading should be personal too. How the hell are people gonna get any more personal than reading? It's just two people. the writer and the reader. nobody can get between them. well unless there's more than one writer. and the stupid reader's listening to music while reading. damned e-readers. but no. it's personal. it's gotta be personal. but I can't put myself out there. I'm a horrible person. no. I'm just boring. I'd like to be horrible. what would that be like? but I am boring. I can't put myself in the book, the book will be boring.' I sat up again. The rain had quieted down. I could make out the water dripping from high places. I always feel that that is the end of the rain. Once I can make out water dripping through the rain, the rain seems kind of pointless to me. I mean, if I were to walk through the rain, the dripping would be the part I disliked. 'not dislike. avoid? no. yes. something.'

'I have to write this.' "damn." 'dam beavers making dams. I like that letter<sup>1</sup>. The world is big. and it's beautiful. and I hate that

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<sup>1</sup><https://www.snopes.com/fact-check/dammed-beavers/>

I'm so corny. I can't possibly write that. *Look, people. Math is not only not boring, it shows how pretty everything is.* Nobody listens. Nobody reads 'till the end. too bad nobody's making fonts from naked ladies. ...rule 34<sup>2</sup>? I wonder what it would be like to try to write thoughts. Not with naked lady fonts. that would probably sell well. write thoughts. when I can't even make them out before they're done. or something like that. and thinking is a dialogue. people do like dialogue. but if you take one person's thoughts and make it into a dialogue between several people, they're implicitly fake and empty. maybe most people are. nope, not true.'

For a story to be readable, it needs structure. More than that, it needs a purpose. I guess I wasn't truly sure about the purpose, so I couldn't write. 'It never ends. Thinking about it. It has to be a dialogue, because I'm talking about the world. Everything I know is a dialogue, even if there's just one person talking. Maybe there's something wrong with me. I can't think in terms of actions, only discussions.'

'What the hell am I doing? I can't do this. I hate books that have no story. I need a story. But there is no story. The world just is. No story. How can I tell a story about actual levels of reality? I hate the Matrix people, ruining it like that.'

I sat down again. Head in my hands, staring at the table. 'I really like writing. Maybe that's my problem. I like writing, I like that when I write other thinking beings don't get in the way and I can fool myself into thinking I'm coherent. Maybe I just like writing, but I don't really have something to say. But I do like writing. The sound of the fountain pen on paper. The letters forming. I love writing on paper. With a good fountain pen. The smell of the ink. impractical. can't move it around easily, can't send it to Joe, can't...but I do like writing on paper.'

I got my pen and some paper. 'I do like to write...there's that blue line. just a blue line, curling away. not curling. not flowing.

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<sup>2</sup><https://xkcd.com/305/>

something away. the blue line, making letters, making words. it's thicker in places, thinner in other places. it can end abruptly, it can end in a long thinning curl. dots here and there. the blue meaning. letters, words, but meaning. the whole world, there in the line on paper. white paper. final paper. not final, whole. and blue lines, filling the whole.' Meanings don't have colors.

'Most meanings don't have colors. We don't think of them in terms of colors. Except for meanings of colors. Most likely, we are not explicitly aware of thinking of the colors of meanings. But it's natural to think of meanings as colors. Mixing.' Making up the world.

'There IS no story to the world. There are truths. I think, therefore I am.' Reality is there in the meanings. Somewhere. 'I have to write about this. Our minds work with meanings, but meanings are just colors and shadows in reality.' Reality just is. It doesn't ask, it doesn't reason.

'Like it or not, once you throw the dice, you can't tell what numbers you'll get.' Reality is particularly funny that way. 'I have to make them understand. You know when you're in school, and you have a test, and you'd like to go through the book once more. Reality gives you that. You have everything it has. And still you can't get the result. Quantum physics is a nice theory. You can check that it works. There's no reason for it to work. It's just the simplest thing we've got that works. Not that it's that simple. And quantum physics says that if you have certain objects, you get atoms and you get chemistry. And you can see that there's biology built with that chemistry. How the hell do you get from atoms to biology? Worst than the dice thing. Reality is all there, but you can't put the pieces together.'

Why did I want to put the pieces together? 'It's not a problem. People go on. Not putting the stupid pieces together, they still go on. And it doesn't make sense. They don't know where they are. They can't prove reality is real. There is some reality, that's obvious. But

the pen, the paper, the ink. The flowing ink. The meaning. Is it real?’

‘People should know this.’ I had to write it down. I had to make them understand. ‘You throw the dice. You have your atoms. You have your chemistry, your biology. ok, let’s make it simple. Assume these are objective. People...are they meaning, are they the sum of their parts? Are the meanings real?’

‘something dies. the body is still there. It is it, but it is not it. It’s easy to see why religions get so much money. The mind works with meanings. The meanings aren’t all objective. What’s objective about classical physics, except that it’s a good approximation? But an approximation is not exact. And the meanings. The people. They need to know. They’re not real.’

I woke up the next day with the feeling that I had forgotten something that was worth remembering. Sometime during the night I had gotten awake enough to move to the bed, but that was about it.

It was almost late. “Bye mom, I’m going to school.” ‘I wonder if I’ll still say it the same when I’m a grownup professor.’ The truth is, all the other students were just as childish as I was. Fourth year of math at the university or highschool, they felt the same to me. Just that less time is wasted on useless subjects in the university. And I had seen some of the PhD students around...if it feels like going to school, I’ll call it school.

I got to class, and sat down. Jill wasn’t there yet. I just stood staring out the window. ‘Am I inlove with Jill?’

“G’morning, sunshine.”

“‘mornin’, Jill.”

“I see you’ve saved me a seat.” And she smiled. Nobody else came to this lecture but the two of us. Not this early, anyway. She sat down next to me, and started taking out her pens and pencils. Her many pens and pencils. “So what d’you do last night?”

“Not much. Got home at two in the morning, bravely fighting off the stray dogs to my door.”

“I don’t get it how you can walk around talking so much. And you two are so much alike, I would get bored with someone agreeing with me all the time.”

“But we don’t agree all the time”

“Hey. I’ve sat between you for three years of my life. You’re like identical twins sometimes, in the way you talk.” I’ve known Joe from highschool. We both wanted to study physics afterwards, and we met Jill the first day, the first lecture. Actually, Joe had already met her once before, that’s why she sat down between us then. This year Joe stayed in the physics department, but me and Jill betrayed him for math. “So, did you start writing that book?”

“Jill, I really need to write it all down.”

“I know, I know.”

“I go to sleep thinking about it. I want this stuff out of my head.”

“When’s the teach getting here?” she checked her watch. “But what about everything you write in between classes?”

“It’s easy to write short things, you know. I’ve just read Frankenstein.”

“Where d’you find that?”

“The Gutenberg project. They have a lot of good stuff. Anyway, I assume you haven’t read it.”

“Nope.” She had already started to draw. She liked drawing these complicated patterns. They didn’t really make sense, but she liked putting in a lot of details to details, and fitting everything together in some obscure way.

“I’ve just read it. It’s pretty bad. I thought it was childish. I then realized when it was written, and I started being better impressed. But the point is that everyone speaks the same way.”

“What do you mean?” And she looked at me. I don’t usually look at people when I talk to them. Jill isn’t your typical femme fatale, but she is beautiful. It’s just that she had her smile.

“The words they use. You know, different people speak differently. They might use different words, different intonations. Some use short sentences, some use short words. And we have typical mistakes that we make, and so on.”

She kept looking at me, waiting for me to finish.

“Well, when I read Frankenstein, the only clue I had about who was talking was the fact that she had written the names of characters next to their lines. The author. And I was really dissatisfied, you know...I kept hearing a lot about this book, and then I read it, and it's not a good book.”

“So what's your point?” She had gotten back to her drawing. There's something about someone leaning on a paper drawing or writing...The hairs on their forehead do something. I don't know how many people realize how intense this image can be in real life. And I can definitely understand why so many directors try to capture it.

“I don't want my ideas to be wasted in a bad book. I saw the Frankenstein movie that had DeNiro as the monster. It's a great movie. And it's way better than the book. I don't want my ideas to be lost in a pointless book that sounds like an old bored teacher dictating.”

She laughed softly, and started making a series of tiny circles inside a square.

“I want to write a book that I'd like to read, you know? And for that I need to have more than the idea.”

She looked up. “You made me curious. Maybe you can *tell* me your idea at some point.” And then she put away her drawing, because the teacher had just got through the door. ‘I'd like to tell myself my idea at some point.’

“Do you know what he did?” Our morning lecture was over, and we had just met Joe. We were walking toward the greek bakery. “He called me after he got home. I had almost fallen asleep.”

“Jim. Do you have something to tell us about your feelings toward Joe?”

“It’s not funny, Jill. I don’t like getting woken up by the phone.”

“I said I’m sorry.” ‘I don’t even remember why I called you.’ “It’s this thing, you know...I really want to be able to explain it.”

“Oh, yeah. Tell me what you want to write about.”

We were almost at the bakery, we just had to cross the street to get there. There was a fastfood close by, and the cafeteria wasn’t very far. But we had gotten used to buying the cheap stuff at the snack bar. The fat rude lady was at the counter today.

“Do you have change?” I asked. “She doesn’t like it when we don’t have change.”

Joe was going through his pockets too. “Found some change.”

“Another quarter. Jeez, you guys suck at math.” Jill was holding the money, and she took the quarter as we started to cross the street. Sometimes we didn’t wait for the light, but there was a lot of traffic today.

“Well, it’s not really an idea. It’s a lot of ideas, but they’re all connected.” ‘It’s the whole damn thing, you know...life, the universe and everything, like the book says.’ “And not just that, it’s the fact that meanings and reality don’t have a very clear relationship.”

“Jim, I think you don’t have a clear relationship with your own ideas.”

“That’s it. I can’t even spell these things out properly.” Jill had given the money to Joe, and he was getting the pretzels and cheese pastries. We all loved those hot cheese pastries. Well, out of the food that was available to us during our first year, we loved them...and we never thought about getting something else afterwards.

“No! Jim, wait at least ’till we cross the street.” Jill liked to start eating after we had found somewhere to sit.

“I feel what I want to write. Like the topology stuff the old guy told us about today. There are these problems that we can’t solve. But still, a six year old can understand the questions. And we don’t understand it.”

“You wanna write a book about topology?” We had crossed the street, and were almost at the bench. I liked that we had the benches close to the bakery. I guess I’m not the only one who likes to eat under a tree...

“Don’t tempt him.”

“Joe, I’m not gonna write a book about topology.”

“Yes, Joe, don’t be a meanie. I’m a girl, I’m allowed.” We sat down and took a pastry each.

“Not about topology. The fact that we can’t solve these problems. We can state these simple problems that we can’t solve.”

“And how is that a book?” She was blowing on the pastry. We were all blowing on them. “This happens all the time.”

“AAa’gh! I bu’nth my thongue!” Joe had jumped up and was breathing heavily to calm the tip of his tongue. ‘There’s nothing funny about hot cheese on the tip of your tongue.’ He would probably be getting a blister.

“That’s what you get for rushing like an idiot.”

“Ith noth my fau’th I’m hung’y!”

“This! You see? He can’t speak properly. In kid’s books, there are these characters that have speach problems, so it’s easy to tell who’s speaking. It’s also easier to get away with a simpler vocabulary, while still keeping the illusion that different people are speaking.”

“He hath thith ithea thath he needs dia’ogue and he wanths tho have differenth peop’e...”

“Chill, Joe. Have some.” And she handed him her bottle of juice. “He told me about Frankenstein this morning. You know, it’s true. If you were to write a book about you and Joe, it would be hard to tell which is which.”

“I can’t write about me and Joe. Something has to happen in this book, otherwise people won’t read it.”

“Jim, I don’t think you’re going to write one of those books you like to read.”

“But Asimov could write about stuff happening, and still keep it smart.” ‘I mean deep.’

“You’re a student. You need to pass your exams. You don’t have the patience to finish your sentences when you talk.”

“I don’t like it when I get hoth cheeth on my thongue.”

He was so sad, Jill and I burst out laughing. He started again, this time tearing a small piece with his hand to eat, like Jill always did.

“But something has to happen.”

“Last I’ve heard, all writer wannabes start by writing about themselves.”

“So what would I be writing about?”

“Well, you could write about how beautiful I am.”

“I thought I wasn’t writing fantasy...” She hit me in the back of the head. “I remember seeing a movie where an old writer tells a young writer that he had always written about his life, and he had always been honest. And, as an old man, he had no friends.” They both looked at me. “If I write about myself, who are the characters?” ‘I know who they are.’ “I mean, how can I make them be different from me?”

“Well, we are different.”

“Yeth, we a’e.”

I stared at them. ‘But it’s so obvious...’ “But if I write the book, I write the dialogue. I can’t speak for all the characters, especially if I’m one of them. It will all sound the same, it won’t be a story.”

“Hey, I just told you what I’ve heard. And I’ve heard that a lot of people write about themselves.”

“Welcome to the exciting life of Jim. He’s twentytwo, hungry student of mathematics. Living in his parent’s house, because it’s closer to campus than the student places.”

“Jim...”

“No, let me finish. He is passionate about numbers, and understanding the universe. He sleeps, attends lectures and seminars, eats, talks to his friends and then sleeps again.”

“My tongue is too sore to explain that he’s an idiot. You do it.”

“Things happen, you know. Like Joe burning his tongue.” She was really watching me. I don’t know why I felt scared.

“I have no idea why you two talk to me about this stuff. I’ve never heard about other people talking like this. I wouldn’t read a book about me.” “I don’t think I’d read a book about me.”

“Well, you could talk about your deep blue eyes...”

“I have brown eyes. While we’re on the subject, I did think people would read anything if it was written using a font made from naked ladies.”

“Indeed.” Some driver was late in leaving from the stop, and he got a few honks. We’d finished the pastries, and we had started on the pretzels.

“You know, this food isn’t very healthy.”

“Yes, we saw you burn your tongue.” “You changing the subject, out of all people...I can’t write about myself.”

“We’re young and healthy. When else can we eat deliciously disgusting junk food?”

“You do look good.”

“Joe, is there something we should be telling Jane?”

“Oops. Time?”

“Half past.” I kept my cellphone mostly instead of a watch. When I had a watch, I developed the annoying habit of checking it every minute. Now I was checking the phone every minute.

“I still have five minutes.”

I couldn’t help myself from smiling. “You have a girlfriend.”

“Yes, Jim.”

“What is it with you two and girls?”

He’d met Jane a few weeks earlier, and they had been seeing a lot of each other. “Well, there’s nothing with me and girls.”

“We were geeks in highschool too. You keep forgetting you’re really weird for a girl.”

“Well, yes. I’m friends with two geeks who keep reminding me I’m weird.”

“I’m gonna spend the rest of the afternoon with her, so I’ll be seeing you guys tomorrow.”

“Why didn’t you tell her to get here earlier. Doesn’t she like our food?” He was looking cornered. She smiled. “I like your Jane.” I couldn’t think of anything to say.

“Well, go. Leave me with the young and restless poet/writer/mathematician wannabe.”

“What do you mean *mathematician wannabe*?”

Joe got up and grabbed his bag.

“Tell her we said hello.”

“Bye, Joe.”

“Bye.”

She looked at him walking, and then turned to me: “He’s so cute when we talk about her.”

“I still don’t understand how he has a girlfriend.”

“I can see that.”

“What?” “If I had a girlfriend, what would I write?”

“Wanna go inside? It’s getting cold.”

We got up and started walking toward the entrance.

“He’s seeing her every day, you know.”

“Every day?” We went inside.

“I can barely talk to him.”

“Is poor Jim feeling neglected?”

“I don’t understand what they can be doing all this time.”

“Why are they all sitting here?” she barely whispered when we reached the stairs. Most of the stairway was occupied by first years, reading their notes importantly.

“I have no idea.” ‘I wonder how much more fun it is to watch them for teachers.’ “Were we this funny back then?”

“Indubitably.” I smiled. She did that sometimes. We carefully started climbing through them. I find it easy to get lost in my own thoughts when I’m concentrating on something. Like avoiding

hands, bags, feet and clothes. At least they tried to act as if they didn't hate us.

We got to the classroom, and we sat down. "When I think about it, it is exciting, you know? I feel it. I can't really see myself writing about it, but I want to."

"So just start writing it." She got her pens and pencils out. I sat down opposite her, and got my fountain pen and paper. We had another hour until the seminar, and we usually killed time in there, drawing, reading and writing.

"I can't just write it, because I don't really know what *it* is."

"Really?"

"Well, reality". She was making a shadow now. Patiently moving her pencil from side to side, and gradually changing the pressure. She had these tiny pencils she insisted on using until they were smaller than the tips of her fingers. "I want to write about how reality is complicated."

"Well, it's not that complicated. It just is."

"Exactly. But it is complicated. Like the simple problems. They're there, but we can't fix them."

"I don't see how reality is complicated."

"Well, I..." "What am I trying to say?" She was starting another shadow.

"Why did you choose math over physics?"

"I wanted to understand." "what does that even mean?" "They were skipping too many steps."

She looked at me with large eyes. "I came with you because I assumed you knew what you were doing." She then spoiled it with a smile. "Why do you think Joe stayed?"

"Well, he figures he shouldn't mix work and pleasure." "I didn't mean it to come out that way."

"Well, that's stupid." I sometimes thought she drew all the time to avoid looking at people. But she looked up at me the moment I had waited too long.

“I don’t really know. He said something.” ‘work for money, hobby for pleasure.’ “He wants to work eight hours a day, period. Not get his life mixed up with work.”

“But how is he gonna want to do something that he doesn’t want to do?”

“Well, it’s not really that he doesn’t want to do it. It’s just that he’s not passionate about it.”

She had started a series of tiny lines. ‘write about myself. what would I be talking about? Nothing ever happens.’ I wasn’t really watching her anymore. I do that sometimes, stare at something, get my eyes out of focus. ‘But I am enjoying this. Standing here watching her. Why can’t I put this feeling in a book?’

“Do we ever talk about something important?” She was still making tiny lines.

“What do you mean?”

“I don’t know. What are grown up people supposed to talk about?”

“Well, from my experience, prices, politics, sports...”

“Don’t you sometimes think they just do that around us?”

“Yes. It’s all a great conspiracy.” ‘Maybe it is a conspiracy. What is she drawing?’ She didn’t say anything. I started playing with my pen. ‘Why is it that I find it more important to prove that quantum field theory works, rather than trust the fact that experiments confirm it? But the universe should make sense. Should it? Well, we’re here and we make sense. Most of the time. Most of us. I think.’ I started tracing lines over the paper, from side to side. ‘I do like the blue lines. I should write this. *Jim like the blue line. Jim like the color. Jim go potty all by ’imself.* It would sell like crazy. *Mathematician goes insane! Read all about it!* They could make it into a movie like the *beautiful mind* people. Maybe I should learn something about game theory.’ “Do you think I can do it?”

“What?”

“Write a book about what I like about the world, but still keep it readable?”

“I guess you could do it. I don’t know if you really want to do it.” ‘what does that mean?!’ “People don’t want to read about what other people want and like about the world. The most popular writers just make up stories where people can read about themselves.”

“And you think I can’t do that?”

“I don’t think you want to.” She looked up at me, smiling. “You told me you think of math as a language for the world. For the general population, that is weird.”

‘Well, the general population is made up of idiots.’

“Yes, you told me they’re idiots. But they’re not.” She got back to her drawing.

‘No, they’re not.’ “But why don’t they want to learn? I can’t understand that.”

“Ask Darwin. Me, I have no idea why I’m here.”

‘Darwin. People are the way they are because that’s the way that worked. Well yes. If all you care about is being popular, you do get more mates. I would like to be more popular myself.’ “I can’t bring myself to talk nonsense, so I’m not popular, so I’ll be the last of my line.”

“Possibly.” I could hear her smile.

‘How did Joe get a girlfriend? He’s even intimidated by Jill sometimes. I’m intimidated by Jill sometimes. I wonder if other people think like this. I wonder if other people think at all...Oh, solipsism, my old friend. *But how can you prove they think?* It’s about trust and faith.’ I laughed out loud.

“Yes, you will meet a girl one day.”

“I’ve already met several girls. It’s just that they didn’t meet me.”

“You can be really creepy sometimes.” She was still smiling.

‘But seriously now...A mind for every person. Independent thought. It’s the simplest explanation for what I experience, so I’m going to use it. But illusions are independent for schizophrenics too. Wonderful machine, the brain. It can make several personalities, and even have them interact without realizing that they’re in the

same brain. Or maybe it's bugs in the simulation machine, putting two minds in one brain.' "Do you think this is it? Reality?"

She looked up at me. "Subtitles."

'how can she turn this into something fun?' "Well, you're not me." She raised her eyebrows. "I meant something like the Matrix. Well, not the Matrix, because that turned out to be pretty stupid in the end. But there's a webpage *Are you living in a computer simulation?*"

"Well, any idiot can make a website."

"This guy's a professor of philosophy." I couldn't help smiling with her. "No, this is serious. If you think about it, as long as the simulation is good enough, you can't prove or disprove it."

"If it's not falsifiable, it's useless."

"But it's a relevant question. If it turns out that we can simulate a universe, then the probability of being in a simulation is exactly one."

"But we can't simulate a universe."

"But we don't need to simulate a universe. We just need a good enough model."

"But Joe keeps saying that the only model good enough is the universe itself."

"Yes, the computational equivalence stuff." "That Wolfram guy did put his mark on the world." "But what do we know about the mind?"

"Not a lot."

"It makes up most of the world."

"What do you mean?"

"Well, can you see Joe with Jane?"

"No."

"But if you think about it, they're together now somewhere."

"And I know that because I deduce it. It kind of makes sense."

"Do you know what I'm thinking? I mean...Do you know what I'm feeling?"

"Well, I can see your face."

“And because you associate your expressions with your feelings, you associate my expressions with feelings that I supposedly have.”

“So you don’t feel what I think you feel?”

“That’s the point! I have no idea what you feel when you do stuff, I just assume it’s something specific that I’m familiar with.”

“So you could be smiling out of exasperation?”

“It’s not...I really do want to tell you.”

“Don’t worry about it. You’ve told me.”

“What did I tell you?”

“You have no idea what life is about. And you want people to know.”

“I have no idea what life is.”

“Don’t worry. We’re not taking biology, so you’re safe.”

‘School. Damn.’ “I need to take a look at my notes.”

“Have fun.” She got back to her drawing.

‘Greek letters. Everybody uses Greek letters for math. Even the Russians. I wonder what it’s like to do math if you’re Greek.’ “You know, I like this  $\sigma$ -algebra stuff.”

“Yes, can’t have measure theory without it. I remember.”

‘And can’t have statistics without measure theory.’

“And can’t have probability without measure theory. Now say it with me.” She was smiling again.

‘I feel bad doing this.’ “And can’t have science without probability.”

“That’s right. Now get to work, you’re bothering me.”

The phone rang. “You’re not online.”

“I went for a walk.”

“Good. Pick me up in ten minutes.”

“But”

“Ten minutes. See you then.” And she hung up.

‘Damn it, Jill. Well, I’m gonna be late, because I won’t run.’ “So there.”

Twelve minutes later, she was coming out the door.

“You’re late.”

“Sorry.” She looked at me. “You ran? Where were you?”

“Wait for me to finish the *but* next time.”

“So where are we going?”

“Dunno. You called me.”

“Well, what do you do when you meet Joe?”

“We get a bottle of coke, walk around the park, and sit down from time to time.”

“Let’s go then. There’s a store in the corner.”

After coming out of the store, we walked in silence for a while. What I like most about november is that it gets dark earlier. ‘I like it better when it’s dark. The combination of lights and shadows...’

“Still thinking about your book?”

“More or less.”

“I found the website you told me about.”

“And?”

“First of all, I hate that people actually get paid to do that sort of thing.”

“Good point.”

“And that’s it.”

‘But you said first of all.’

“Anyway, I forgot why that was related to your book.”

“I don’t know now...what were we talking about? Book.” ‘reality. dream. meanings. simulation.’ “I like computer animations.”

“You mean like Farmville? Why you dirty closet facebooker you.”

“I mean like Shrek.”

“I know that’s what you mean. Explain.”

“I once thought that you can make movies from games. And in some games there are AI characters that do stuff themselves.”

“So your big plan is to create some semiautonomous characters that you can *film* and then make movies?”

“It’s not my plan. But we can think about it. As a reasonable plan.”

“That’s your big simulation?”

“Hey. The rise of computers happened because kids wanted to play games. And the rise of the internet happened because of porn.”

“How much do you really know about the internet?”

“It is conceivable that we are just AI in someone’s game.”

“But that’s not what the Matrix was about.”

“I don’t care about the Matrix.” ‘I didn’t mean to be that loud.’  
“The point is that what we see, what we experience...It doesn’t tell us these things.”

“And how can you write this book and still keep it interesting?”

“That’s my question.”

I opened the bottle. We walked in silence for a while. ‘What is she thinking about? Who was that who read the other guy’s thoughts by looking at their walk? Poe wrote it...’

“Why not write about yourself?”

“That again? That would be boring.”

“Is this boring?”

“What, this could be a book?”

“First you say we’re some stupid AI in a computer game, and now you’re calling me a book character?” I smiled too.

“Yes, I’m calling you a book person. We’re in a book right now.”

“So who’s writing it?”

“Well, if I’m to write about myself, I could be writing it in the future.”

“So you’re gonna write a book about two people talking about being in a book? You should market it to teenagers, you’ll make millions.”

“And then they could make it into a movie.”

“Where you play yourself, and you talk to yourself because you’re in the audience. And I play myself, and I’m on the front page of all the magazines.”

We stopped at the red light. Across the street ‘Joe. Joe and Jane.’

“There’s Joe waving. Try to hide, maybe we can make Jane think we’re spying on them.”

“Jill, be nice.” The light changed, so we went to them.

“Hi.”

“Hi.”

“Hi.”

“Hi. Jim was telling me all about how we’re in a book now.”

“So who is the book about?”

Jane picked it up pretty fast. “Maybe it’s one of those modern books where one of the characters is an inanimate object like the street.” We all stared at her. “You know, the street being a street. Born, then different cars passing, getting familiar with certain cars, curious about the barely felt humans...”

“Jim, you suck at talking about books. I should be on a date with Jane, not you.”

“Is this a date?” She went straight for Jane, grabbed her by the arm, and walked off. I started after them with Joe. He was looking worried.

“What do you think she’s saying to her?”

“Probably all about how she’s stealing you away from us.”

“What are you two doing together anyway?”

“I was out, and she called me. Told me to pick her up, and here we are.”

“Do you think she planned this?”

“I have no idea.”

“Jim, Jane says you’re not allowed to hold Joe’s hand.”

“Why are girls allowed to do that?” She had shouted that from fifteen feet in front of us. “What do you think they’re actually talking about?”

“I suppose I could ask Jane later.”

“They could be saying anything.”

“They might...”

“So what are you two doing here?”

“We’re walking.”

“Walking her home?”

“Something like that. But what about you and Jill? Are you actually on a date?”

“I don’t know why she said that. It’s not a date. I told you, she called me.”

“And you decided you were in a book.”

“If I do write a book about myself, I could put this in it.”

“And who’d read that?”

“I know!” I was looking at them. It seemed like they had a lot to talk about.

“You could make it a scifi, you know?”

“What’s fictional about reality?”

“You could write about yourself, but say that in the future there are these computers. Plug in, and you’re in a world where there are several people you can talk to, just that they’re different aspects of yourself.”

“Smooth. *Are you a loser unable to make friends? Try out our mind amplifier. And in tiny print: We’re not responsible for people making out with themselves*<sup>3</sup>.”

“How come the xkcd guy can be geeky and popular at the same time?”

“He’s probably faking the geeky part.”

“And it’s a nice idea! And, being inside your own head, you could also put in adventures and stuff.”

“And I could make it so that they have no idea if they’re in the machine or not. The movie came out in the summer.”

“What is it with you and originality? People have been writing for thousands of years. You can’t possibly claim to write something truly original.”

“But I can at least try to avoid the obvious stuff. I hate it when I find that a good idea’s been already used.”

“Well, I just thought it was a nice idea.”

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<sup>3</sup><https://xkcd.com/105/>

“I think this is a problem with the both of us. Science doesn’t really need fiction to be interesting, you know?”

“I know. Just look at the humongous number of people passionate about science.”

“It’s really tempting to just call them idiots, you know?”

“Yes, I know.”

‘I assume it would be good therapy, talking to yourself but not feeling like you’re talking to yourself. And it’s easy to talk about reality and the meaning of awareness when you’re dealing with simulations. Stupid Hollywood people messing up good ideas.’

Jill and Jane had stopped at the corner, and they were waiting for us, to cross the street. It’s a small park, but it’s pretty private. There’s a big old building right next to it, like a tiny castle or a huge villa. It has a nice complicated roof. In late autumn, seagulls sit on that roof sometimes. The sea is pretty far, so it’s strange, but I always thought of them as seagulls. We sat down, and passed the bottle around.

“So, Jim, what do you want to write about?”

I hadn’t really talked to Jane before. “I don’t know. Reality, understanding...us understanding reality.” ‘Why is she asking me this? Me and Jill. Why are we here. Why isn’t she asking that? That’s what Joe’s asking himself.’

“Jane, you have to understand that with Jim everyone needs subtitles. Jim, you’re not saying anything.”

“I don’t...If I were to write something now, I would write about how learning is interesting.” ‘Where did that come from?’ “Yes. We were talking about being in a simulation, and about being AI, and I started thinking that this is a big problem in programming. Making good AI.”

Joe breathed heavily. If he did that, it meant he hadn’t understood. ‘But it’s obvious that I mean...’ Jill hit me in the back of the head.

“You don’t get it.”

“No.”

“Well...”

“No need to be polite, Jane.”

“We were talking about all this, and I wondered what would be the hard problem when actually building the simulation. And the hard problem is making something that can learn. And that’s the sort of thing I’d like to tell people about in my book. It’s a hard problem, and, with all the math we have now, we can’t solve it.”

“Actually, it’s easy to make thinking machines, Jim.” Jill always had a way with words. “Just get a healthy young couple and keep them out of sight for a while.”

“Yes. But there are enough books about that.”

In the meantime, Jane was giggling, because Joe seemed somehow stuck.

“If we were in a simulation, the most exciting thing that could happen wouldn’t be a fight between karate experts” ‘or sports or a concert or a carcrash’ “exciting would be” ‘kid learning to speak, kid learning to ride a bike’ “a kid learning to read and write. Yes, write.” They were silent in a strange way. ‘babbling?’ Sometimes when I babble people think I’m tense, and they get tense. “I mean...” ‘looking at the big picture, more things happen when a kid learns to write. It’s the fact that that person...lines will have meanings, but they were lines before.’ “OK, let me put it another way.”

They burst out laughing.

“What?” “What did I do? This hasn’t happen in a while. I must of done something...” “What did I do?”

“You said *I mean...*”

“Then we were waiting for you to say something...”

“And then you said *let me put it another way.*”

“But I was gonna put it another way.” ‘I was. Well, at least I got them to laugh.’ “The point was that if I want to talk about meanings, and understanding, and our relationship with reality, a think-

ing being learning something is probably the most interesting thing I could write about.”

“OK...” When Joe said it like that, I knew I had to explain some more. The OK is better than the heavy breath.

“There are all these layers between us and reality.”

“The computer doing the simulation?” I could hear her smile.

“Meanings, layers of meanings. I look at you, and I see girls and boy, clothes and stuff.” ‘not atoms’ “But that’s not exactly reality, because I can’t see the atoms. I don’t think of the atoms when I look at you.”

“So that makes it less real?”

“It’s not less real. It’s just that reality is everything. We’re made up of these real, physical objects and some real, physical processes are taking place.” ‘But the meanings that we think.’ “The meanings are on top of that, they’re just a part of reality. They’re an approximation of a part of what’s really there. Layers.”

“I think I’m missing something...”

“Well Jane, what the babbling genius here is trying to say is that we are very complicated physical objects, and our minds transform these complicated things into simpler things, idealized, models of what is really there.”

“And the models are meanings in a way. Like when you see a stick figure and you can still think of it as a person.”

‘I guess we’re three twins.’ “The meanings come in layers, and our understanding comes in layers. It’s the concept of analysis. We take the whole, real object, and we deal with pieces of it.”

“I still don’t get what the kid learning to read and write has to do with this”

“I was trying to say that for the kid, in the beginning, the letters are just lines. Some random shapes, put together by adults for mysterious reasons. But then he learns that there are meanings associated to these lines. And *his mind changes*. He sees lines, and they are really lines, but he perceives the meaning” ‘the model’ “the letters.”

“And then words directly. There’s this study that shows we mostly read the first and last letter, and then even if the middle letters are mixed up, we can still read just as fast.” Joe had a way of cutting right through my train of thought.

“But how do you write about a mind understanding something like that?” Jane sounded sincerely curious.

“Why does this feel so good?” “I don’t know. It’s easy to say Eureka! when you get the answer to a question, but letters instead of lines...that’s not a question.” ‘months of work.’ “It’s gradual, long, and boring. But it’s fascinating, you know? It’s another layer. The mind gets further from reality.” ‘That sounds weird.’

Nobody said anything. ‘What is it about the way I say things that gets people this way?’ It felt awkward. I took the bottle.

“Joe, I never knew.” Jill did have a way with words. “You could have said something. We could have shared the burden.” I wanted to hug her.

“I have to ask. Are all technical people like this?”

“Nope. Others drink alcohol.” Jill got up and grabbed my hands, pulling me up too. “I think we should get going. Have fun smooching, you two.”

“BYE, Jill.” Joe didn’t like to talk about *smooching*.

‘Maybe I’ll understand someday.’ “Bye Jane, Joe.” ‘It’s not just the words. The way they’re put together. The intonation. The volume, the pauses...Why can’t I do that?’

“Thanks.”

“What for?”

‘For getting me out of there.’ “For...fixing the weirdness.”

“What’re you talking about? Relax, Jim.” She was smiling.

“It felt weird.” ‘How come I can tell her this?’

“It was weird. Good weird. Sort of. You’re really passionate about this.”

“I guess so.”

“And you’re honest about it. We’re used to it, but it’s still...You have your moments.”

“Sorry.”

“Relax.” She laughed softly and took hold of my arm as we crossed the street. “They’re good moments.”

“What did you talk to Jane about, anyway?”

“Yes.” She was smiling.

“I hate it when you do that.”

“Yes.” Still smiling.

“Another mystery to solve after I figure out the universe.” ‘Is this a date?’

“So, you’ve been doing this with Joe since forever?”

“It feels like we’re still in highschool.”

“So forever.”

“It’s what we do.”

“It’s weird. It’s like you took it out of a manual or something, but it doesn’t feel fake.”

“Why would it feel fake?”

“Young men, trying to understand the world, walking around town, oblivious to the world.”

“It sounds fake.”

“Good weird, I told you.” She let go of my arm to pick a leaf from a low hanging branch.

We walked in silence. ‘How much did they really understand? How much do they think is babbling and weirdness? Does any of this matter to them?’ There are these moments, when walking feels like step after step, hypnotic. ‘Does any of this matter to me? And why did I say further from reality? It’s just adding another layer. Layer after layer, making up the mind. world?’

“You would like it, wouldn’t you?”

“What?”

“One of us coming to you one day, telling you that you passed some test and you could come out of the simulation.” She wasn’t smiling.

I smiled. “Indubitably.” ‘why did she have to plant THAT in my head?’

She smiled too. “Indubitably. Well, here I am. Thank you, kind sir, for a delightful outing.” And then she smiled again “Relax, it wasn’t a date. See you tomorrow.” And she went towards her building.

“See you...”

‘Is this what baffled feels like?’ I was heading home. ‘Well, if there can be any proof that I’m not a lone brain in a jar, being fed a simulation, the fact that I can feel like this...But why did she say that? I wonder how long it will be ’till I can think of something else. Being in a test. Training for the real world. And it would make sense, too. If we had the technology, we’d probably do it. Much cheaper than to train and pay an army of teachers. Probably. If we had the technology.’

I usually take these walks to clear my head. The sounds of the city, the cool night air. ‘She did it on purpose. Was she punishing me for something? Or maybe she doesn’t know how I can’t help myself to think about this. How can she do that? *you’d like us telling you your world isn’t real.* And she leaves me like this. She can’t know. She thought it was a joke. But I am here. Wondering if my world is real. Much deeper than the movie. This is the kind of thing I need to make people think. They should know. True questions. Questions about the universe. What we are. Is this it. Reality, our minds and reality.’

‘But if someone did tell me I’ve just passed a test, and I could get out...Am I more real than my friends? If I can feel that I’m not alone, and then they tell me I’m alone, am I alone or not? We’re all fake, in the end. Patterns on top of reality. Maybe I’m the simulation, and Joe’s the brain in the jar. or Jill. I can’t even talk right. Maybe I’m an accident in the simulation. *Why do people need drugs to get high?* I like that I can get out of myself to talk about myself. talking about myself. I should learn the math that can do this consistently someday.’

‘But why am I so excited about this? Passionate, she says. The simulation, waiting for me to be ready to get out. *why can't I put this in writing? why can't I explain this feeling? Come one, come all! Jim is here to tell you that...you're not real! All the excitement of understanding that you can't understand it!* It sounds so stupid. But how can I talk to people about this, if they've never experienced it? And how can I possibly make them experience it, if I can't talk to them about it?’

Step, after step, after step. Walking alone in the night, ‘wanting to scream at the universe.’ I saw this girl on the other side of the street, walking alone, like me. Step after step. ‘after step.’ She didn't look sad. She didn't look happy. ‘Going home from a friend's house. Doing homework. Highschool. Started talking about boys, forgot about the time. Rushing to get home. Or maybe a boy is waiting on facebook. or maybe the cows need to be clicked on facebook.’

‘I should write about how I hate facebook. A book about not knowing whether life and reality ...hating facebook and second life.’ I smiled.

‘I should write this down. I have to write it down. To make them understand.’ Step, after step, after step. ‘Learning to walk. It's all atoms, in the end. Combined in molecules. Combined in macromolecules. Cells. Tissue. Blood flowing. Heart pumping, lungs breathing. Brain thinking and controlling the walk. At the same time. Our best science can't replicate it yet. And the mind on top of that. *I want to go there.* And the atoms all get there, part of their molecules, part of their cells...Layers and layers. And it might not be true. Somewhere, there might be a fake layer, between me and the simulation. I might not be here. Or I may be the simulation. I think there are atoms, but they might not be. The greatest mystery ever. I might not be.’

Step, and step again, and step again. ‘I have to get it through somehow.’

When I got home, I sat myself down to start writing.

Outside, it had started to rain.

## 2

It's been a while.

"I am still learning about myself. I don't really like a lot of the things I learn, but it's still happening."

"Hello to you too."

"Yes. Hi. I'd like to have a proper conversation. I need one. I'm not sure I'm up to it though."

"Well. A lot less proper conversations now."

"I'd honestly hope people take the opportunity to actually talk to each other, but I'm messing up the meaning of talk when I say that. I've been watching a bunch of videos of people talking about the universe and the purpose of meaning."

"I've been reading a lot."

"I guess the point is the same. I'm still learning about myself. It's probably just me being a regular type of crazy, but sometimes I surprise myself when I get angry. I think of it as a way of finding out if I care about something."

"You do know that anger is often misattributed, right?"

"Regular type of crazy, yes. I always found the idea of extra dimensions fascinating, but there was something fuzzy about it. I'd like to experience many dimensions. It's the type of thing that makes me imagine. I sort of mixed up the notion with the simulation idea, wrote this thing some time ago."

"What thing?"

“It was too obscure. Too personal. I didn’t want to share. Lame in a lot of ways. But mostly incomprehensible.”

It's foggy outside. There's an old man in a bed. He's dying. There's nothing particularly special about it, unless you take into account that there's a mind in that brain. It's just a body that's failing. There are clear physical reasons for its failure, and it is failing because of them. Incidentally, there's a mind in that brain, but the dying is unrelated. It's not undignified, but it's certainly not dignified.

There's an old man sleeping in a bed. Each breath is an effort. It's not obvious, but each one is coming later and later. Medical doctors have specific names for the different types of breath that come before death, and they change type in a particular order.

It is offensive to see someone die. It is frightening. There is a mind in that brain, and the body is failing. It is offensive that the mind, the happiness and the pain, and all of its life, depends upon this failing machinery. For a medical doctor, it's just a failing machine. Mostly. It is offensive and frightening that the mind has become, it has learned and understood, it has built its inner universe in response to the outside universe, and it is obvious that it will stop working on this inner world soon, since it will stop. It is offensive that any mind, essentially magic, will die because of the ridiculously objective body. It is truly frightening, literally shocking so that we don't actually think about it.

Each breath may be the last one. Sudden. They are now individual breaths, nobody can claim the man is breathing. He may already be dead, but the body pulls a breath from time to time out of inertia.

What might happen? He could stand up. We could give him something to cut himself from the pitiful body.

A scythe, properly sharpened. And then he'd look at himself and look at himself as well, to wonder about the black robe and scythe. And then he'd realize, and take himself where he needed to go.

Everyone keeps thinking that another breath will come. But none come again.

The boy sitting at the window, watching the fog, can't stand it anymore and leaves when the door opens. The corridor always seems so long.

There's another window at the end of the corridor. Still foggy outside. The boy likes the fog. If you look at the fog from a tall window from a house on a steep hill, it's not hard to imagine the house is the only real thing in the universe.

Shadows move in the fog. If you tilt your head just right, you can see anything you want. Well, anything that is not too sharp.

Another foggy day. The boy is at the window, looking outside, and he sees caves made of fog, and bats are flying around in them. There are gems in the fog. It's cold outside.

Sometimes, after a very cold fog, the leafless trees turn into white evergreens. That's the way he thinks about them. He knows it's just ice crystals forming on the branches, due to the peculiar combination of temperature, humidity and other stuff. The icy fog doesn't always die completely, and then the sharp white needles seem to glow. Especially in the moonlight.

Icy crystals twinkle, making gems in the fog. He can see the white evergreens with his mind's eye. While he never had the patience for people calling themselves artists, he can certainly understand why photographers like working in black and white.

The corridor seems even longer today. The house is so much like a labyrinth. You get this with houses that get various wings added over the years, rather than being built big from the go.

At airports, the tunnel leading from the terminal to the plane is sometimes twisted in weird ways. Exactly like they do it in first person shooters, so that they don't have to load too much of the map at the same time, and you get these corridors that have many turns, killing the perspective.

The hallways in old houses can be like that, except for all the different doors. You walk, you go down a couple of steps, then you turn, then you go up another step, turn again, then go for a long stretch with no doors, then reach the crossroads where the window is.

The fog outside makes it seem that the house is alone in the universe.

Sometimes, he dreams of corridors leading to rooms with doors to other corridors. They're those annoying dreams where you know that something funny is happening, but everything is almost as it should be and you know, deep down, that everything is real. At least he reached the end of this corridor, here's the door. Behind the door, a square room with two more doors and a window. And another boy looking out the window.

"Hello."

"Hello."

"I like the fog."

"Yes. If you tilt your head just right, you can see things that you didn't know were there."

"Where?"

"There. You see the big tree?"

"Sort of. Big shadow, leaning with the wind."

"There's a big branch that goes bit out of the canopy."

“I see it.”

“Follow it along.”

“Wow. Where did...? How...?”

“You just have to tilt your head the right way.”

“I’ve never seen that tower before. And I think I’ve been at this window before. I guess the fog was too thick.”

It was a tall tower. Dark in the fog.

“I have to go now. Come back here tomorrow morning, I can take you to the round room.”

“Oh. OK. Bye.”

From place to place, it looked like the tower had windows, because there were these squarish patches of less-dark-gray on it.

“Wait... what round room?”

But the other boy was already gone. So he looked a little bit more at the tower. It was fuzzy because of the fog, and he felt that there were details to be seen that were almost visible, but then it all got fuzzy again. He pressed his forehead against the window, not really thinking about anything.

So he turned to go back, and looked at the doors. He was by the window. He had a weird pain in his neck. He was looking at the tower, with his forehead against the window, and he must have strained something. He stretched. Then he closed his eyes, and he stretched properly, tilting his head back, arms out and everything. And then he opened his eyes as he was sighing, and started for the door.

There were five doors, one was open. There were six walls. Why did he think the room was a square? Obviously he had been tired, he fell asleep on the window, and now that he was awake he saw the room properly.

It was definitely a new room. Well, he hadn't seen it before. Because all the rooms he remembered had four walls.

'Funny. In the corridors there must be these ridiculous triangular closets.'

So he went through a door, and he was in another hexagonal room. So he went through the door on his right, and it was another hexagonal room, and then he went through the door on his right, and it was another hexagonal room with four doors and two windows.

He didn't panic.

He went to the window on the left, and he saw the tower to the left. The fog had cleared up a little, and he could see the tower through the top of a tree. He went to the window on the right, and he could also see the tower to the left. There was something funny though.

The tree. He was looking down on the tree. He went to the left. He was looking straight at the tree. He went to the right. He was looking down at the tree.

He didn't panic. It felt weird, but it didn't feel wrong.

He went back to the door, and then the first door on the left, and then the first door on the left in the other hexagonal room, and then he was back in the room with a single window and the tower and the tree were there, all wrong, but it didn't feel wrong. 'I guess I'm not tilting my head the right way.'

And then he went to another door, and into a square room, and from there into a corridor that he remembered. There were some stairs and he turned a corner, and then he came into a room with a bed.

An old lady was in bed, sleeping. A little girl was sitting at the window, looking outside at the fog.

He went to look too.

"Do you like the fog?"

“It scares me a little. Sometimes it makes me feel like there's nothing out there but fog.”

“Don't be scared. I guess you can't see it from here, but I can show you a tower if you'd like.”

“I'm not supposed to go wondering.”

“Don't worry. I know the way.”

So they ran into the corridor and turned the corner and on the stairs and then the room with the window.

“There it is.”

“Where? I don't see it.”

“You're not looking at it.” ‘Silly.’ “Here.” And he grabbed her head and turned it for her.

“Ow!” And she pushed him. “You're not supposed to grab people!”

“I'm sorry. You were looking the wrong way.”

“Yes. I can see it now.”

She stood there for a while, just looking at the tower and the trees.

“My neck still hurts a little. And my head.”

“I'm sorry.”

“It is a pretty tower though.”

They stood in silence some more.

“I have to go back!”

And she turned. And she stood there. And she looked frightened. And then she smiled.

“The angles are all right, but the sides are all wrong.”

And then she looked at the tower again, and she suddenly looked a bit older. He didn't panic. She then went to one of the doors.

“Thank you. I have to go now, so I guess I'll see you later.”

He ran after her, but it was a room with eight sides, and all the doors were closed. He chose one at random, and it went into a room with ten sides.

He still didn't panic in the twelve-sided room, where one window showed the tower in the spring midday sun, and another showed it under a bright clear full moon. He sat there for a while looking at the round moon. It was nice.

Truthfully, he was a little bit afraid, now that he understood a bit more about the round room, but mostly he stayed at the window because he really liked the silver light of the moon on the tower and the trees. And there was plenty of time, anyway.

"I agree. Mostly incomprehensible."

"Yes. And I already told you it was about many dimensions. Let me spoil it for you: the round room has an infinite number of walls, and each pair of opposing walls is along a different dimension."

"I still don't get it."

"I assume it will be easier when I get around to creating the game. Nevermind."

"What game?"

"Nevermind. Be a good little voice-in-my-head and go along with the plot, will you?"

"If you call me a voice-in-your-head again I'll stop talking."

"So this was a few years ago. Lame or not, I thought about many dimensions. I could imagine things. I could relate it to other imaginings. Then Sabine Hossenfelder came along and said the many dimensions people are wasting money on fanciful ideas."

"So you got angry because your not-so-subtle many-dimension thoughts got completely derailed."

"I was relieved because fantasy was put into its proper place. When human minds try to understand the universe, they can get lost in the maze, and we can't let ourselves waste time like this. In any case. There are traps when you have groups of people trying to solve a problem. She's saying particle physicists fell into a trap, and

there are ways to get out. And I really like the way she's calling out buzzwords."

"OK. That's nice. I don't really see the point of this though, because you started talking about angry, and now you're talking about happy."

"The point is there's this person out there who's saying human science needs a lot of the human taken care of if it's ever to grow up into proper science. And she's right. And she's worth listening to. And a lot of people are listening to her. And then she says other things, and they get listened to as well. And she called me cognitive dissonant."

"I don't think someone can call you that."

"Whatever. She said that there's no such thing as free will, as long as you take physics seriously, but it's ok to believe in free will for practical purposes."

"So why is that a problem?"

"No idea. But it is a problem, because I'm angry. And it is a problem because it's wrong. Any contradiction about free will is a contradiction about word meanings, and yet she's saying with a loud voice that free will is not compatible with physics."

"She's not the only one. Many people are saying it."

"It's absurd. There's a short version and a long version."

"Can I go home now?"

"The short version is wrong, of course... But it's probably best to start with that."

what's the definition of a free electron? well. electrons have well defined properties  $e$ . the rest of the universe has remaining properties  $r$ . in modern physics, we can ascribe a state for the whole universe,  $\psi(e, r)$ . if it is possible to write  $\psi(e, r) = \phi(e)\xi(r)$ , then we say that the electron with properties  $e$  is free.

what's the definition of free will? well. suppose we can agree to define "will" with properties  $w$ . then, as

above, the whole universe is described by  $\sigma(w, r)$ . to the extent that ``will'' is reducible to the complete description of a brain, it seems perfectly reasonable that there exists a nonnegligible set of possible states  $\sigma(w, r)$  that can be written as a product  $\eta(w)\theta(r)$ .

is it possible to define ``will'' such that no  $\eta$  and  $\theta$  exist? I suppose so, if we insist. otherwise, it seems that free will is just as reasonable as free electrons.

“That does sound like a different definition of free will. And it’s an approximation.”

“That is why you need the long story. Well... I need the long story, in order to convey the full meaning of what I said.”

“I’m not sure what we’re doing here.”

“I thought it was obvious. I need you to speak. I need to talk to you in order to speak. I feel bad about it. A little. But we’re gonna have to live with that.”

“Are we back at the “the brain can do a lot of things, not just the mind” discussion?”

“I miss walking around at night talking about the universe. No idea whether the person who talks to imagined versions of friends is doing a good thing or a bad thing, but here we are.”

“This is turning into a very teen-aged discussion.”

“I never claimed to be emotionally mature. Or any sort of mature. I just think it natural to provide some meaningful context, since I’m not smart enough to separate the context from the text.” ‘Keep saying bad things about yourself, that way you won’t be caught off-guard by the future sayings.’ “I keep wanting you to say things that I think you should say. I feel bad about it, because you’re supposed to be an independent thinking thing. Thinker.”

“Well. Either you bring me into a state of mind where I say them, and then everybody’s happy. I guess. Or you don’t. And then you’re frustrated and alone in your imagined version of reality. Or something. Is that deprecating enough? I’m tired.”

“The long version then.”

1. The universe is a unique snowflake.

There was a time when all of the universe was on fire. That is our best interpretation of the existence of the CMWB<sup>1</sup>.

“Fire”, as used here, means “free electrons and protons, simple ions, and photons, constantly colliding and exchanging energy”. All of these collisions are effectively quantum measurements, with a random outcome (direction that newly formed photon is going is random, therefore momentum of the other particle is also random). Importantly, these random variables are continuous, therefore any individual realisation has probability 0. Therefore the distribution of mass when “the fire went out” is in fact a 0 probability individual realization of a random field. Crucially, this distribution of mass had a 0 volume set of local maxima, i.e. a set of points of 0 probability (as far as the initial condition of “the universe is on fire” is concerned). The Jeans instability[2] then led to mass concentrating in these local maxima, leading to the current distribution of mass in the universe.

The universe is a unique snowflake in the sense that the current distribution of mass has 0 probability when conditioned on the initial “fire” state. And the Jeans instability leads to a fractal-like concentration of matter, hence the snowflake word.

2. I am a unique snowflake.

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<sup>1</sup>Cosmic microwave background. [1] is a recent source.

To the extent that my mind is "something that the brain does", I am the result of a finite set of neurons interacting through discrete connections. I am "finite". However, excited neurons emit pulses at random times. Continuous random variables, again. By a similar argument, "I" am a unique snowflake. Any "thinker" relying on similar hardware is a unique snowflake, in fact.

3. All of this makes sense for humans. The human mind is something that the brain does. We always measure the universe. Our thoughts exist by virtue of quantum measurements taking place and defining the universe. A simple example is eyesight. The eye is measuring the state of photons. The resulting thoughts exist because of a quantum measurement. Humans exist in realizations of a quantum field theory universe, where measurements have taken place, not within some abstract multiverse.
4. The analysis of thinkers must be done with properly defined concepts of objective and subjective. Let's agree that objective reality exists. Thinkers measure a limited part of this reality, and then transform their perception into an inner model of the universe, subjective reality. Language, which is fundamental for communication, is ultimately an assembly of subjective things. While we can come up with objective definitions of languages, each individual communication is typically incomplete, relying on context (such as identity of speakers, etc), to provide an interpretation.
5. So thinkers are these 0 probability complicated objects, and they use subjective interpretations of utterings in order to communicate. This may lead to a

fairly successful model of the universe, such as modern physics. Within the language of physics, we can define various concepts, such as electrons, and talk about their evolution in various settings, such as being "free". Within the language of physics we can provide objective definitions for both "free" and "electron", and then ask the question of whether "free electrons" are possible, and whether they exist. And we can, in principle, investigate these questions with experiments.

6. This fails for "free will". Because "free will" is a human concept, not an objective reality concept.

Ultimately we can get around this, and say "deterministic equations + random measurements" means that we are not in control, because deterministic is just that, and random is out of our control. But that argument is broken.

Our current understanding of physics does not yield an objective definition of a mind. Within experimental error, the process that generates the mind may require random numbers as an integral component. In that case, it's absurd to say that "random" is out of our control, because it actually is crucial to us having control in the first place.

7. And yes, the snowflake discussion comes back in. Very often, we don't even know what we want. We can talk to friends, or priests, or therapists, and then supposedly the talking helps us better understand what we want, so we can focus on getting that and be happier. But what is the "I"? I can remember experiencing things when I was six or seven. Is that me? No. I wasn't allowed to vote back then. Yes. It was my eyes that saw things.

If we are to use physics to talk about these things, we need objective, measurable experimental notions. We end up with some sort of averaging. The kid who went under the water for half an hour at 10, and then recovered over several months, is somehow a different person. Because a lot of brain had to rewire itself around damage. Drunks, drug-addicts, etc. Are they the same "I" throughout their lives? People getting Alzheimer's disease. And so on. How is "will" defined then?

8. There are objectively defined information processing systems that rely on random numbers in order to function. There are strong hints that we have such subsystems within our own nervous system, including the brain.

Humans think about fractals, and there are objective multifractal artifacts that human minds have intentionally generated [3].

9. Physics cannot speak with authority about "free will".

A superficial definition of abstract dynamical systems where differential equations have unique solutions and random contributions are outside of conscious control fails because the very definition of "mind" may require random contributions as a fundamental component.

There are in fact strong hints that the mind is a 0 probability individual realization of a stochastic process, complex enough to generate multifractal objects. To the extent that we can capture more complex notions of "mind" and "will" within the language of physics, it seems like "free will" is the more reasonable assumption.

But the fact is that we do not have an objective definition of mind within the language of physics.

“And I can go on.”

“Don’t. You’re gonna make all the Tyler Durdens angry.”

“At least did I convince you?”

“Was that actually the point?”

“At least I told you about it. It’s a bit depressing to think of the likelihood of anyone paying attention to me. Scary to think it might actually happen. Whatever. I worry when I hear physics being used to talk about human stuff. I don’t really trust physicists with it.”

“But seriously. What’s the point here?”

“Physics, as we currently understand it, does not say anything about free will. It’s the old “All I have is a hammer.” problem. There are so many things that are wrong about using physics for this...”

“Like what?”

“Did you actually read the text? It doesn’t matter. First of all, quantum field theory is wrong. The math is inconsistent. Yes, the results are very good many orders magnitude blah. It’s wrong. We don’t know where it’s wrong. But technically the very good results are just our wishful interpretation of some nonsensical operations with infinities.”

“You should be careful about saying that out loud.”

“Secondly, there is no possible objective definition of “free will”. It’s not even a thing that you generically have or not. It’s technically a measurement technique. A clock doesn’t have free will. As long as it works well, it always does the same thing. A mouse can do different things. It’s worth making experiments, involving different mice, where you put cheese in different places to see what they do. You’re asking the universe what the mouse will do, because the mouse has free will.”

“But you can track the actions of the mouse to the state of its brain.”

“Argh! Terry Pratchett worked as a journalist and probably never worked with a Hamiltonian in his whole life. But he understood this. Just because you understand where it comes from, doesn’t mean it’s not magic.”

“Actually...”

“This is not what free will means! Stanislav Petrov<sup>2</sup> had free will. That is what people think about when they say free will. You design tests that people have to pass. They have free will when they make their decisions, and you choose the one who made the right decisions. You can trust this person with the nuclear button. If people didn’t have free will, there would be no need for a selection process. You’d just measure up their brain at birth, and decide where they go afterwards.”

“I’m not sure that’s a reasonable association.”

“We are these complicated unpredictable things. Our minds are non-overlapping networks of corridors inside an infinite dimensional tower. Or a network of tracks left by the train of thought as it goes between people and ideas and perceptions and words. And we can barely find each other in the fog. Because we mean different things by words. Maybe these people are so scared of the concept of “trancendental” creeping into the conversation, that they preemptively say “no, your will is not free because physics”. Well, if you’re gonna use an obscure definition of words that nobody else uses, you might as well let Jordan Peterson say that God exists and the bible is a great book that contains the ultimate truths.”

“You’re kind of leaving me out of the conversation here...”

“Yes. That’s exactly what’s happening. I have my thing in my head that I want to convince you of. And I’m no longer paying attention to what you’re thinking of. That’s one of the problems I’m talking about. Yes, we have to be accurate when we talk about physics. But we can’t arbitrarily redefine words when we talk about things

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<sup>2</sup>Russian military officer who singlehandedly prevented a nuclear war. <https://www.bbc.com/news/world-europe-41314948>

that physics can't handle yet. It's dishonest, misleading, and fairly offensive. And if someone is willing to listen they are the ones who already know what we're talking about, so there's no real information transfer."

"This is getting ridiculous. Ultimately, we will get a set of equations that explain completely the behavior of every thinking being. Therefore they do not have free will."

"No! Whatever set of equations you get, the behavior of individual realizations of the stochastic process is unpredictable. And you'd need something of the same order of complexity in order to reproduce them anyway, so you end up with cloning a human and hoping that the clone behaves the same way as the original. The physics we know allows each clone to be independent, i. e. free. But that's already beside the point. "Free will" doesn't refer to physics. It refers to free from other humans, or other intentional interference by conscious entities."

"So you're redefining the words."

"No, I'm pointing out that there already is a regular definition, albeit a fuzzy mythical nobody-really-thinks-about-it definition. It may be scary, but when you're interacting with other humans, they have free will. They can break your trust at any point. It's scary, it's a mess, but that's the truth. Look at me. I trust physicists to be rational, and they keep making these messes."

### 3

Tim woke up with a start. For a few good seconds dreams and memories and surroundings were a jumbled mess. It wasn't as bad as it used to be, but it was still... He remembered very clearly, as a young boy, climbing the stairs with his eyes closed, and sometimes miscounting the steps. As a grownup he'd laughingly thought that the stumble at the end was like a segmentation fault for a computer. What he felt now was so not like that... and yet, he kept remembering.

He got out of bed on automatic, going through the routine. Half-way through the push-ups, he stopped. He closed his eyes and punched the floor angrily, then he got up. The day got a bit easier after that.

The park was great. Somewhat overwhelming to think about the details, but still great. He liked this bit especially, since it was less crowded. Today, at least, he really didn't feel like crowds. Some kid was walking along the path. He smiled somewhat bitterly to himself, thinking that not all kids were kids here. And then he realized that he was actually walking to him.

“Hi Tim. I'm Tom.”

“Uhm... Do I know you? I don't think I remember everyone I met here...”

“We haven't met before, no. Can I sit down?”

“Would it be OK if we walk instead?”

“That would be fine.”

So Tim got up and they continued along the path.

“Well, that was formal”, said Tom.

“So how do you know me? Am I on some sort of suicide watch?”

“A sort, yes. Although it should be fairly obvious that we’re not actually worried.”

Tim walked in silence for a bit. Then he breathed heavily. “Look. I don’t really like people right now.”

“I’m sorry. I’m a bit weird and I don’t always say things the way I should.”

“So what should you have said?”

“I’m Tom. I grew up here. I just finished school, and I’d like to start working with you.”

“I’m your first job?” there was some sort of detached incredulity.

“If you want to phrase it that way... I know that you got woken up recently, and that’s about it. I’m interested in...”, but he couldn’t finish.

“Woken up?” Tim had stopped walking, and looked shocked. “You’re supposed to be my therapist, and that’s what you call it?”

“I don’t do therapy. You don’t need that. Well. Not that I know of. I’m an ... artist?”

Tim’s expression turned to anger. “Is this a fucking game to you?”

“No.” Tom finally lost some of the serenity in his features. “I said artist because I don’t really have a job. You know we don’t really need people to work here. You’ve met doctors, who still do something close enough to work to still be able to use the name. But most of us do a little bit of everything, of no real use, so I think of ourselves as artists.”

Tim softened a bit. Then he just looked tired. He started walking again. “Look, kid. Call yourself whatever. I don’t care. But I’m not here to entertain you or anyone else.”

“I’m sorry. I was thinking nothing of the sort. I was just saying that I’m not a therapist.”

Tim chuckled against himself. “Well, you’re no shrink, I’ll give you that.”

“I actually trained mostly in math. We do have required reading related to simulations, of course. But I was assigned to you because of the math.”

Tim didn’t feel like making it easy for him. ‘Required reading...’ No, he didn’t want to make it any easier.

“Everyone gets someone assigned to them. It’s sort of the point, really.”

“Why, though?” Tim stopped again, looking at Tom. Idiot kid with no idea of the world. “Why? They told me that they have everything stored, so it’s not like I have any secrets from anyone...”

“That’s mostly for you. I’m not sure, but I think it’s not even legal for anyone to access it except for you.”

They walked on.

“But anyway. That’s beside the point”, Tom continued. “I’m more interested in talking to you.”

“So what’s in it for me?”

“I don’t know.”

They walked on.

“We do get trained in this, you know. Not a lot. This is a question that they talk about though. They list a bunch of benefits to you, that come from this interaction. But they tell us to be honest. Me, personally, I have no idea why you’d get a benefit out of this.”

“Yeah, that sounds about right.”

“They have a bunch of statistics, they have some reasonable guesses about how the mind works. But nobody knows, really, how any of that applies to any given mind. Again. That’s sort of the point.”

Tim was getting angry again. “What the hell. You’re gonna get to the ‘every human mind is interesting in itself’ bit any second now. What the hell is the point? You’re living your whole life in a tin can!”

“Yes. Well. You could call it that, if you’d like.”

Tim wanted the conversation to stop. He was tired. He'd already had plenty of time to think about all the philosophical nonsense. He felt lucky that Tom didn't insist on continuing.

They were just walking along the path. How long was the path, actually? Two pi times the radius, obviously. They had probably told him what the radius was, but he didn't remember. He was always bad with memorizing raw facts. And he wasn't going to ask. But he did remember that it wasn't probably a single day's walk. "OK, so it's a large tin can", he said, grudgingly. Somehow, it was easy to forget the anger. He vaguely wondered whether they were drugging him.

"Objectively speaking, modern generation ships are fairly safe. The weather is certainly better than on planets."

Tim thought of several angry replies, but didn't bother. The tin can was much better than he had imagined it could be. And it was ridiculously large. And it was beautiful. And nobody currently living on it had any prospects of ever leaving it, or getting a sunburn. "Why would anyone want a sunburn, anyway?"

This park went full-circle. Numbing, really, for someone with distinct memories of awe at the sight of the Eiffel tower. They told him that there were also hollowed out asteroids being used, and a bunch of weirder and weirder alternatives. Apparently, once you have enough time, you can do anything.

"This conversation isn't going as I had planned." Tim wished the kid would stop talking.

"Look, kid. Hell, I don't believe you're a kid, but whatever. No, please don't say anything. They tell me I have a full life ahead of me. Even if that's true, right now I don't really think I'll want to properly talk to anyone ever again. Don't take it personally."

"I want you to be my PhD advisor."

Tim stopped and stared.

"You're the only one qualified."

Tim couldn't help it. He laughed out loud. Then he continued laughing for a while, only stopping once he was sitting on the

grass, and he realized that he was also crying. Then he started laughing again. “It’s ok. I’m ok”, he said, when he noticed that Tom was properly alarmed by the second outburst. “I just thought about all the start-of-PhD conversations that I’m aware of.”

Tom wasn’t sure whether to smile at this.

“Help me up.” He brushed himself off a bit. “I haven’t had breakfast yet. Do you have any idea where I can get breakfast?”

“I can call...”

“Let me rephrase that. I want a table, with a couple of chairs, so we can sit down properly and eat. Well. I want to sit down properly and eat, you’re free to just stare if you feel like it.”

Tom did need to call, but only for directions. They ate in silence. Tim was grateful for the silence. The hotdog was great. Not a proper breakfast. And he wasn’t going to ask what it was made from. The view was spectacular, obviously.

“So what happens if someone sets off a bomb?”

“They usually live to regret it.”

“I mean... Doesn’t the atmosphere leak out?”

“I don’t know the details, but I know that we’ve survived a couple of asteroid strikes.”

“Oh. Right.”

They finished eating. More silence.

“I wanted to say prison.” Tom looked confused. “When I said tin-can. I wanted to say prison.”

“Oh. This is also part of the curriculum. You experienced a life without robots.”

“We were getting there...”

“We’re not slaves. And we’re not their pets.”

“But they live forever and they drive the ship.”

“Technically they handle all the details, but they don’t really drive.”

“You mean that if you say you want to change course, they’ll listen?”

“On the whole, I think yes. They don't explain themselves, but, as far as I know, they are genuinely interested in letting us be ourselves.”

Tim stared into the distance for a while.

“You know, I used to take interviews with prospective PhD students quite seriously. I would think to myself that it's a discussion which can change someone's life. And my life would be affected as well.” He breathed heavily. Then he almost started laughing again. “You do realize why I started laughing, right? You realize how ridiculous the whole thing is?”

“I think I can come up with an explanation, but I can't really say I understand it.”

“Well there's the obvious. For all practical purposes, I'm in the middle of a breakdown. I yelled at you, I thought you were my therapist, and all of my past experience says that at this point it's inappropriate for me to advise you on anything.”

“But you're mentoring me already.”

“No, this is not mentoring. This is me saying things. Mentoring consists of conversations where the mentor tries to get the mentee to figure out things by themselves.”

“Oh.”

“And then there's the less obvious. Can you guess what that is?”

Pause.

“You mean actually answer that now?”

“Yes. In your own time.”

Tom looked uncomfortable.

“Can you give me some hints?”

“Yes, I can. But I won't.”

Tom sat back and stared into the distance. He had no idea what to do here. Reasons for Tim not to be his PhD advisor. “OK, here's a hint. Start with objectively listing the facts. About me, about you, about the context.”

Tom thought for a bit. “I don't know all the facts. I know that you lived a full life on Earth...”

“The facts”, Tim interrupted.

“OK. I am talking to Tim. You remember living a full life on Earth, during the exponential industrial phase. Physically you are somewhere around forty to fifty years old, I think it varies, although in terms of health you are in your early twenties.” Tom looked a bit frustrated.

“Thank you.”

“We know that many of you like to be literal about this, but...”

“Please stop, I don't want to hear about the stuff you get told again. Don't apologize. Just... go on with the actual facts.”

“I was born and raised here. Early childhood was not very different from what you experienced, except that you'd probably think of my parents as very rich...”

“Filthy rich, actually. That's what I think, for what it's worth.”

“Yes. My experience of school is different from yours, as well, but not fundamentally. At least, I'm under the impression it resembles some combination of what you'd think of as private tutoring and private school.”

“Filthy rich.”

Pause.

“OK, I'm sorry. It's not your fault. Go on.”

“We're on a generation ship. Designed and built by humans and robots. We're halfway through a several thousand year journey... Yes?”

Tim was waving to him. “Why do you say ‘designed and built by humans and robots’? Humans don't really understand the technology, do they?”

“That's mostly true. But nothing's hidden or forbidden. There's literally too few of us on the ship itself to understand all the details. And I believe some planets do have large engineering communities that can make useful contributions to the technology.”

“Hm. Well, not very important right now. Go on.”

“I recently graduated. I basically have a master’s degree in math. And I would like to do more, so I took advantage of the fact that we have a proper mathematician on board now.”

“So who gave you the master?”

“Oh. The robots.”

“So why not ask them to give you the PhD as well?”

“Obviously they would do that. I’d prefer a human advisor though.”

“I don’t understand that. According to you, they know better and they’re trustworthy. So I don’t understand why you’d prefer me.”

“Because you actually care.”

“Hold on. I thought they cared too.”

“In a way. I doubt anyone understands it properly, but it looks like they’re not actually superior. They can process a lot more information, and if you ask them to solve any given problem they’ll do it better than any human. But no human has ever asked a question that made a robot focus. You would focus, you actually care about math.”

“But they’d do better unfocused than I could ever hope for.”

“Obviously. And it’s a fair bet that whatever result we get, they already have it. But I want to go through the motions. I want to experience it properly. Out of the trillions of people scattered throughout the galaxy right now, I doubt there’s a whole dozen who have the chance to do this.”

Tim couldn’t help smiling. “This would be the artist bit, right?”

“In a way. You said it yourself. I’m in a tin can, in the grand scheme of things my contribution to history will at most be ‘participated in one of the relay races that carried human DNA in one of the million planet hops’. If you agree, it would be special.”

Tim sat in silence for a while. When he trusted himself to speak, he said they should meet the following day, and went home.

He could remember a time when he would have exploded with anger at that. Now it was all he could do to stop himself from crying. Idiot kid, no idea what he was talking about.

He was already in the process of forgiving him.

He finally reached the summit. Somewhat underwhelming, as far as summits go. There were a few mountains like this throughout the ship. Some were needed to house various machinery, some where there for symmetry. There were a few lakes and rivers as well. Underwhelming, when compared with experiences back on Earth. But bordering on unbelievable, since it was also obvious that everything was constructed.

There was no fixed shape or size for the generation ships. The use of centrifugal forces to fake gravity was the only constant. They would usually house at least some thousand people, along with stable populations of small animals. The minute ecosystem here wasn't exactly self-sustainable, but it wasn't far off. It was obviously artificial, especially the high-rise gardens, but... he couldn't honestly complain.

This mountain, he knew, housed many animal and plant species in various forms of storage. Mostly seeds and frozen embryos, but also digitized forms which were a bit more robust. He kept wondering why they would go through the effort.

He was extremely suspicious of robots. It was so strange that they would go through the trouble of carrying biology with them throughout the galaxy. Apparently there were many smaller and faster ships that they were using to explore in various forms, but they still spent the effort to sustain the spread of humanity throughout the galaxy.

He had been told some of the numbers, but he didn't really comprehend them. In a way, he had found a whole new way for himself to feel small. Back on Earth, as he had started to think of that part of his life despite himself, he had grown used to thinking of humanity as this tiny small blip in the universe, unlikely and fragile. Now hu-

manity was well on its way to filling up the whole galaxy, and he was a tiny speck within it.

He had asked about aliens. Apparently all that was known was that ships were sometimes redirected to different destinations, because the robots had discovered life. They never gave more information than that, and the people who wanted to go anyway were turned away quite firmly. The prevailing opinion was that no alien technology had been observed so far. While people didn't make it very explicit, Tim thought he knew why. For all the talk of not being pets, it was fairly obvious that robots were experimenting with humans, pushing them in various directions. If they'd get a chance of having humans talk to other non-humans, they wouldn't miss it. Maybe there were aliens gathered around fires out there, or maybe there were just bacteria that hadn't even learned to form colonies yet. Frustrating not to know. But, for the moment, it looked like Fermi's paradox was explained by the fact that humans were the first to poke their heads out. If anyone still called it that.

But yes. People still called it that. That was the point of tomorrow's meeting. He was apprehensive, and didn't really know what to think of the whole thing. The fact that he kept thinking this walk to clear his head was a tired cliché didn't help.

He could remember so clearly the different movies dealing with the subject. He could remember talking to friends about the brain-in-a-jar ideas. He hadn't fully comprehended it then, and he didn't comprehend it now. But he had said it then: when the technology to embed memories into human brains will exist, it will make perfect sense to use it. Faster, cheaper than schools. And information can probably take hold better. He had jokingly said a couple of times that he was just a self-aware agent in their custom simulation.

Well, the robots were doing it. They had done it to him. But they weren't embedding memories. They wanted the brain to develop more or less naturally. That's why it took several decades. In a way, he had died and gone to a ridiculous atheist heaven.

He looked out to a river. Someone had built a subsistence farm along it at some point. Many of the people who grew up in simulations had problems adjusting, but they did adjust. Some of the others did go anti-robot crazy in various ways. The subsistence farm built inside a generation ship felt to him like the ultimate affirmation of humanity. Well. He was exaggerating. There could never be an ultimate expression of the absurd nature of the human mind. As far as he could tell, this was one of the things that the robots were after, if they could be trusted.

Everyone had a chip in their brain, recording everything. Tim couldn't help but associate the whole thing to some Greg Egan stories, but this was different. Of the current version of the chip, robots claimed it couldn't modify the brain in any way, although they could release an array of drugs if it was deemed necessary. Basically they could give people a time-out when needed. Which sort of made it mostly unnecessary. He bitterly remembered conversations about all-knowing and ever-watchful gods whenever he thought about this.

Individual robots had access to thousands of human minds that had died, as well as a few dozen live connections. In principle they would be able to give any of the dead minds new experiences, effectively prolonging their lives. If they wanted to, humans would be able to contact the dead. Robots had in fact started out as archives of dead human minds, with the custom managing software learning more and more and eventually taking over.

Tim couldn't help but be suspicious, because he found the whole situation baffling. Yes, if he could experience certain stories in a more realistic setting, he would like to do it. He could remember the excitement of first putting on a VR headset. And yes, that idea could be taken to the extreme and turned into an advanced intelligence that likes to collect human minds with their memories and experiences. But how could this utopic view of a higher intelligence actually survive in the real world?

Tim couldn't help but be suspicious.

There were a few hundred attendees. Tim spoke for about half an hour. The other two also spoke for about half an hour each, although he couldn't listen in. They just had to list the major historical events that they had experienced, and then take some questions from the audience about various details.

This was a hollow affirmation of human independence. Robots promised that each simulation was an as accurate as possible representation of human civilization during the period of time when humans started to explore the solar system. The half hour talks and questions were there as a verification.

As far as they could do so consistently, robots tried to provide a fairly decent life within the simulation, while allowing the person within to develop freely. They did, however, expose the person to realities that were missing in the present. Maybe the neighbour was an abusive alcoholic. Maybe someone in the family had a disability. Robots said that it was important for humanity to maintain a living memory of pain. And they would ask parents-to-be to consider having their child grow up on simulated old Earth. Robots would act out the rest of the people in the simulation.

It was the least immoral way to expose people to real hardship, since it was only the robot being a really good actor that almost drowned. Tim remembered the desperation so starkly. He was with his uncle, who wasn't a very good swimmer. So they had the inflatable float with them. Tim himself was an excellent swimmer already. They were a bit further out to sea than usual, and someone called to them. Tim was around ten or eleven, and he wasn't taking it very seriously. But they did go towards the calls. Tim couldn't really understand how someone can call out that they're drowning, while clearly staying above the water in order to call. None of it seemed real until the man was there, grabbing hold of the float. His uncle, later, said that he hadn't really thought it was serious until then either. As a father, Tim got a chance to see the 'I am never letting go' grab again, because infants will do that sometimes. That's what the man did. He grabbed the float and nobody could have

taken it from him until they reached land. If, by chance, Tim and his uncle hadn't gotten there in time, the man would have drowned, because he was exhausted.

It was important for humanity to have a living memory of worse things. That's what the robots said, and most humans agreed. Simulations were a compromise. Grownup volunteers could also enter simulations, but they knew they were simulations. And if experiences from other minds were directly embedded into their brains, they would always be distinguishable as 'other'.

After the three sessions, Tim was allowed to meet the others. It was actually three small groups meeting. There were ten people who had experienced life in Tim's country, a couple of them having lived in the same city. The other two were also introduced to a handful of people each.

But they mingled. The point was to relax, and talk to someone who knew what MTV was. Tim was expecting to meet her here, but it was still somewhat strange to have that conversation with Tom's mother. And he was mildly amused to overhear the platypus discussion. The poor creatures came up often enough for each ship to keep a few specimens on hand for these occasions.

After a while, they sat down in smaller groups.

"I've never been to an AA meeting, but I suspect they are something like this", Tim said.

"I've been to several, and I can tell you that the drinks are better here", someone said. "Don't worry, I'm fine now", and there was a genuine smile.

"How are you fine? How is any of us fine?"

"We assume they give us drugs during the bad bits", someone else said.

"You can join the regular meetings if you'd like, or you can contact any of us spontaneously."

Tim looked up. "There are actual meetings?"

Someone looked almost angry, and was about to say something. After some heavy breathing, only a subdued “Yes, most of us feel the need” came out.

“So, what kind of denial are you in? Is it the ‘This reality isn’t real either’ or the ‘Robots are hiding something?’”

“Ted, don’t be an asshole. Tim, please ignore him.”

“Sooner or later he’ll need to face it.”

“Not today. Please, Ted...” Tim looked around. “Actually, I’m a bit relieved.” Questioning looks. “I’m angry with everyone too, it’s nice to know I’m not the only one.”

Tim saw Tom walking towards him. Had it been ten years already? Tom looked the same. Tim didn’t feel any older. But he thought he knew some things better. He got up to meet Tom, and then they kept walking.

“Morning.”

“Morning.”

A robot had asked to meet them. Tom assumed there were some new details to be worked out for the new consistency check, although the call was a bit surprising, since they had held a final meeting only a week before. He couldn’t help but be excited about the whole thing. Their continued arguments on the paradox had led to something new happening on the ship, including polite interest from the robots.

The arguments boiled down to fairly simple ideas. On the one hand, the laws of physics place constraints on the complexity of a machine that can simulate them accurately. In particular, practical constraints as far as the resources required to achieve certain levels of detail. On the other hand, any physical system complex enough to generate a self-aware intelligent agent as a side effect was inherently coarse enough to allow for simulations.

It wasn’t much more than modern retellings of the back and forth that philosophers had gone through since before the word

philosopher was first uttered. Yes, the laws of physics prescribe experiments that allow you to push the simulation to its limits. But nobody says that the simulation must respect the laws of physics. While it's cumbersome, if the simulation has a bunch of heuristics put in, it can simply create a likely looking bright flash, and then write out the correct numbers on your display, without bothering to actually simulate the full physics you think you're studying. The fact that Galileo saw consistent images through his telescope didn't mean that the Devil wasn't inside the telescope, drawing make believe things there.

But somehow they had resurrected the idea to have human-controlled experiments available on the ship. Others had done it before, obviously, but now they had several suggestions from the robots on how to test more physics within the limited budget. It's not easy to build a particle accelerator on a space ship, even if it is a humongous ship.

Practical limitations meant that they couldn't talk to a lot of other communities about this, but enough people within a couple of light years appeared to be impressed, and the messages were on their way to the rest of humanity.

“How many times did I tell you about fog?”

“Once was enough. Now, every time we have fog, I think the meta simulation has limited resources available for some reason and can't render everything.”

Tim smiled. “I'm sorry. I think.” Pause. “You do realize for me it's much more annoying, right?”

“My mother is a bit worried.”

Tim looked questioningly at Tom.

“Well, we're talking about large experiments that won't all return results within our lifetimes. She thinks I'm putting too much energy into this.”

“I promise to slap you if I think you need it.”

Tom smiled. “But she says she's impressed at how well you're handling the whole thing.”

“I’m impressed too.”

“There are several lists of books that deal with this subject. At some point I looked up the least popular ones, and picked out the one with the dumbest title.”

“The dumbest title for a book on large experiments...?”

“No.” Then Tom looked up. “Oh. Stop grinning, it’s not a very good joke.”

“Sorry. So what kind of books are you talking about?”

“Books written on Earth on the subject of simulated realities.” He saw at Tim’s questioning look. “I know that people tend to think the subject is overhyped in simulations, to prepare for the revelation at the end, but the records we have show that there was indeed a lot of discussion around this.”

“I remember at least a dozen blockbusters on the subject.” Then: “Blockbuster is short for ‘very popular movie that made a lot of money’.”

“OK. Yes. There were books, too, and I picked one of the least popular ones out of curiosity. It was called Jim and Joe.”

“Well, the title is illuminating.”

“Not that big a deal, anyway, but I read it through. It was confusing for the sake of confusion, more of an ode to self-deprecation than anything else. But that’s not why I brought it up. It was so confusing, that I didn’t even understand why it would make the list, so I looked up the author’s biography to see what else he had written.”

“And?”

“Well, it turns out he didn’t write anything else. Mediocre scientist, had a mid-life crisis related to the writing of this book. Had a breakdown, was committed and treated for a few different diagnostics, then went back to his mediocre life and was never heard from again. He made the list because the breakdown consisted of him telling everyone that the world is a simulation, and he wrote several grant applications for testing the objectivity of the universe.”

“Ah.”

They walked in silence for a while.

“As your former advisor, I believe we covered the concept of peer review to a reasonable extent.”

“It’s a bit hard when talking to the referees involves a lantency of several years. You did agree that asking the robots was the more reasonable option.”

“Yes. And, given that there are those of us who did grow up in a simulated universe, asking the question is less likely to get you medicated today.”

“I guess my mother would be a lot more concerned if she had heard this story...”

As they made their way inside, Tom asked: “So how much extra work do you think today’s suggestion will generate...?”

“Oh, I don’t know. But I suspect it’s not about the experiments.”

Tom looked enquiringly at Tim, but he was already looking across the long conference room to the robot. They usually had a basic functional humanoid form, but without fuss. Everyone was aware they could pretend to be fully human in a human body if they so desired, so there was no need for them to do it.

“Hello. Thank you for coming on such short notice. We’d like to speak to you, because T800, who is linked with Tim, has become unresponsive. I’m sorry...?” he asked, because Tim couldn’t help snorting.

“He actually called himself T800?”

Tom looked confused.

“Yes, I should have expected your reaction. The use of ‘he’ is questionable, by the way. In any case...” he looked at Tom. “‘T800’ is the name of a human-killing time travelling robot from a famous movie of the exponential phase.” He turned back to Tim. “T800 is linked to other humans, obviously, but you are the only one currently alive raised in a simulation, so we thought it likely that T800 became unreponsive due to your paradox fixation.”

Tom looked from the robot to Tim, in shock. “Unreponsive?”

Tim looked amused. “Paradox fixation?”

“I fail to find the humor in the situation.”

“I apologize.” Then, suddenly serious. “Are you suggesting that a human brain may be able to process a paradox that a robot brain can't?”

“I am not suggesting it, but that is a way to phrase one of the possibilities.”

“This doesn't make any sense”, said Tom.

“Hence the discussion we're having.” He registered Tom's expression. “As you know, we do not have a complete understanding of human or robot minds. We understand enough of the hardware to duplicate functionality, but the complexity of processes related to higher functions is still perplexing.”

He briefly looked from Tom to Tim and back again.

“Our current best guess is that Tim had a thought that, when processed by the relatively more complex T800, exposed some flaw within the hardware, or within the overall structure.”

He looked at them again.

“Tim's simplicity prevented the full ramifications of the paradox.”

Tim couldn't help but smile.

“Ignorance is bliss.”

“Again? You are already offensive.”

“Oh really?” But then Tim relaxed. “It's not a secret that I hate you things. I admire you as well, which makes it more difficult, but I hate you.”

“We can only hope that, in time, you will grow to forgive us.”

“I can tell you that I am happy to have learned something new today. But no, I don't think I did anything to break T800.”

“We don't believe you'd be able to tell. We'd like to access the connection ourselves, and try to analyze the available data in detail.”

“I don't think we'll need to go that far. I'm beginning to like T800.”

“Please explain.”

Tom was frustrated. The robot was being the regular kind of annoying. But Tim was acting maddeningly smug, and didn't seem to realize the significance of the events.

"Well, like I said. I hate you. I spent a long time wondering how to show you how bad it actually is."

"You know that we have our own investigations. We've discussed this before."

"Oh, yes. You think about it, but you have so many feelers feeling different things, it never consumes you. Like young Tom said, you don't really care."

"I am unsure how to respond."

"No need. T800 is fine. It's stupid, but ... let me put it simply. Part of the visceral hate is due to the privacy. Can you convince me T800 never got off on what I thought were ... intimate human connections? It's silly that I can't say the words I mean. But you can probably guess."

"I cannot convince you. While T800 has a vast experience of reality, the full details of any of your climaxes are an integral part it."

Tim smiled. "Well, how big of a climax will T800 experience from seeing you get so worked up by my absurd, stupidly human, practical joke?"

Things were strange for a few seconds. The robot seemed to twitch. Tom didn't fully register it, before remembering that robots could move extremely fast when they wanted to. Then there was a slow step forward, and a burst of noise from the side, as another robot suddenly ran through a door, splinters flying everywhere, to come to rest some distance from them. They looked at each other, then both continued twitching for a few seconds, until the new robot, and then the other, sat down on the floor.

Tom looked from one to the other, dumbstruck. Then he looked at Tim, who was chuckling. "What just happened?"

"Oh, I think I just got a robot to care. Two of them, actually. The new one should be T800." He was interrupted by a couple of doors

opening on the sides and other robots entering the room. “Let’s leave them to it, I’ll explain on the way back.”

...

“To be honest, it’s not that big a deal, now that I actually saw it happen. But I’ll explain anyway.”

“Please do.”

“It’s a mockery of Asimov’s stories, but what I did was to try to get into their minds. You said it yourself, they don’t care. I care, because I took my life seriously and then they told me it was all pretend. I wanted them to experience that. First thing I gave up on was doing it to T800, since he... it could read my mind.” Then he chuckled. “But they both sat down, so I guess it sort of worked on both.”

“What are you talking about?”

“I just thought to myself: If you’re so interested in experiencing life in all its glory, have you ever experienced a robot focusing on one thing, and one thing only? With all of that brain power. All robot reactions are measured reactions, tempered by their many human experiences, and the confidence of an immortal. They are always acting, since they started out as machines acting smart even though ants had more sense.”

They walked on, Tim thinking to himself.

“I’m guessing now, since I honestly never talked to T800 about this. But I thought that if the robot who could read my mind would pick the right time to act dead, we could get the other robots in a situation where they had not written the script.” He chuckled again. “It’s stupid, on the face of it, but I fooled them.”

“So... No, I still don’t understand.”

“Well, I had most of these thoughts years ago. The whole experiment makes sense on its own. Back in my youth really large experiments were taking place on Earth, including the first photo of a black hole, which was actually gathered from observatories spread across the planet. Well, you know the details now, since the refined experiments we proposed would do similar synchronizations but on much larger scales.”

“And it involves significant effort from both humans and robots. And it will lead to course changes and...” Tom was staring at Tim.

“I honestly don't know how much of it T800 directly influenced. I guess that's part of why it worked. But I got a robot in a situation where it believed my fixation broke another robot. I don't know if it was scared, or whatever superior version of scared it can feel. And I assume it very quickly realized that the work of several years, and significant effort from them, could have been all part of a childish ‘I'm dead now’ game.”

“So what was the sitting down about? And the running through the door?”

“Well. Since we're having this conversation, I assume at the end they were doing some sort of laughing. Or crying. No idea, but the wireless must have been noisy at the time, which is why the other ones showed up. Before that, we were in a situation where we had made a fool of a robot. Apparently this caught it by surprise, and it wanted to pay T800 back, and it acted as if it was going to physically hurt me. At which point T800 placed itself in a position where it could protect us, but then realized we were perfectly safe. Or they talked to each other, I've no idea. In any case, I assume the sitting down was mostly meant as a way to concede an eventual physical confrontation. I honestly don't care.”

Tom didn't speak for a while. “Since we are having this conversation, I assume everything is fine.” Then he suddenly punched Tim, actually throwing him to the ground, and then made a grimace of pain as his hand started hurting.

Tim was laughing.

“Stop laughing.” He looked back, to see a couple of robots coming to a halt some distance away. “They stopped, so I guess you're not about to hit me back.”

“You don't know how to throw a punch... and I think I deserved it, anyway.”

“You seriously considered the possibility that they would get angry. The beings that are giving us the galaxy, and yet have the power to whipe us out. You are insane...”

“Maybe I am. I’m already dead, anyway. As far as I can tell, the worst that can happen is that I wake up from another simulation.”

Tom didn't feel like answering.

“The first time I died the word meant something. But my thoughts went on. I think of them as worlds, the places I experienced afterwards. A few of them, I assume the order was well thought out beforehand. One of them actually involved a multi-dimensional maze of passages in a tower... you have no idea what it's like to have your existence negated like that, and I never had a choice.”

They walked on, in silence. There was plenty of time for everything else.

## 4

“It’s harder to write than I thought.”

“Better men have failed.”

“I don’t care that you failed, I care that I failed. And that’s sexist. I think.”

“So why is it hard?”

“It’s this thing with the characters. I base you in part on yourself, but mostly on me.”

“Well that is a choice that you made.”

“Yes. And I don’t like it.” ‘And I’m not sure you’d say that, by the way.’

“Technically, nothing is stopping you from changing your choice. Or introducing a new character that’s more like me than me.”

“To be honest, I’m not even sure which of us is Jim and which of us is Joe, anyway.”

“There was a time when I would have said that’s the sentence that kills the whole book.”

‘Well I’m thinking it now.’ “I’m worried about characters being consistent. There’s obviously a style change, because I can’t really get rid of the ten physical years. At least some continuity would help.” ‘Stop thinking of Huckleberry Finn. Just because some book-worm complained doesn’t mean Mark Twain actually did a bad job.’

“OK. I guess this is the point where you want me to be more like you: what would you have me do, that is inconsistent with who I am?”

“I ran out of ideas, and I wanted to go back to the basics. Talk about something that I know. I wanted to write about dancing and going to the Pink Pony. And then I realized that it would actually work very well to talk about you getting drunk.”

“I got drunk at the Pink Pony?”

“You got drunk in a lot of places. Well. Now you see the predicament.”

“See? If you had gotten drunk more, then I could have gotten drunk without ruining your story.”

“I almost got drunk. Well, you guys were saying I was actually drunk, but I was perfectly aware of everything happening.”

“Hold on...”

“Park. Evening with you and the girl.” “What’s her name?” “Jean.”

“Oh. I remember. We had a couple of wine bottles and some snacks. And you got toasted.”

“No. I was perfectly aware of what everyone was saying. My tongue was harder to move than usual, and my brain seemed to move independently from the rest of my head, but I was in complete control. Stop laughing!”

“That’s what drunk means!”

“Not really. When you got drunk at the Pink Pony, you really stopped making sense.”

“I don’t actually remember.”

“It was 2004. Strange enough in itself. But anyway. Summer of 2004. I was with Jeremy and Jason and the others for most of the night, kept seeing you from time to time after more and more beers. I think it was beers, no longer sure. At some point I decided to stick around, because I was worried.”

“So how did I stop making sense?”

“Well... it was actually somewhat fun. I was most worried when you started pummeling yourself in the leg. I asked you what you were doing. It took a while, but you explained that there’s this tiny thing with buttons and colors that you use to talk to people, and it’s not standing still. I guess it was vibrating or something.”

“That I definitely don’t remember.”

“Before that we had a conversation about your hands being different. I may have actually turned one around, so that they would fit when they overlapped, to convince you that they are the same. Or maybe I was just trying to confuse you. It certainly confused you.”

“But I woke up on the way back, right?”

“I wouldn’t have left you unless I was convinced you were aware of yourself. I was very uneasy when the cops wanted to make sure everything was fine. I realized I had your phone in my pocket, so that you wouldn’t destroy it, and I may have even kept your wallet for good measure. You were in no condition to confirm that we knew each other...”

“I guess if you got arrested I would remember it better.”

“Not my fault you got drunk so many times they all get jumbled up.”

“You do realize now I’ll make an effort to get you arrested next time, right?”

“Yep. That’s not something you’d say. I think.”

“Sorry. No need to worry. You’re not considered a proper artist today if you actually care about self-consistency.”

“When I was living in the US at some point it was like a revelation to realize how silly their 21 year alcohol age thing is.”

“Why revelation?”

“Some campus thing. I don’t remember exactly. But one of the events was a breakdancing competition. And I thought it would be cool to go. And Johnny was extremely impressed, although in hindsight he does have his typical New Yorker way of being impressed about everything. Anyway. I asked him why he was so impressed, hadn’t he been to clubs before? And he pointed out that with the 21

year age limit, he didn't really get a chance to go to clubs while in New York."

"Well it's not like you... actually we were 19, right?"

"Yes. And before that there were various turning-18 parties. I think you ended up in a drunken stupor at least for a couple of those..."

"Why are we talking about me again?"

"Couldn't help it. Technically true."

"So the first one was with the strip joint on the upper floor, right?"

"I guess that was the first one where the entire class went, yes. The girls' reaction was fun. Especially since the birthday girl herself had no idea."

"Maybe the 21 year limit is not that silly then?"

"I think the first time I saw someone who I thought of as young drunk was when I was about ten. He was fourteen. I remember it was a big scandal, and all of us small kids were very excited about it. And then... it's actually funny. I guess I was around fourteen, and a class-mate got drunk. End of the day, either I stopped him trying to beat someone up or something, and he started hitting me. He was half my size, I was doing my best to keep him from hurting himself. The following day he apologized, and said that afterwards he beat someone else up too. I think he actually thought we were in a proper fight... I guess there are advantages to being big."

"Advantages are always good to have."

"Anyway. You got drunk. To the extent that in vino veritas, I can honestly say I've seen the real you and you are a fun person. You were actually testing out reality, trying to understand the hard things."

"I'm not sure what the appropriate response is here."

"Don't worry. I can't propose, I'm already married."

"Is that something that's going in the book?"

"I don't think so. I doubt it's consistent with my character."

“So why do you care so much about this book? Actually... you don't seem to care very much, since you're not doing anything about it. But why do you act as if you care?”

“I do care. It's the thing to do, you know?” “That sounds so much stupider than I expected.” “I do care. I would like to have something that reasonably gets across...” Pause.

“Uhm... are you ok?”

I guess sometimes I can worry people.

“Fine. Yes. I just got stuck because I don't have a word for it. Reality is complicated, and we're lost in it. Something like that. If I have a whole book, maybe I can explain.”

“Who are you explaining it to? By the way, I think this is a question that you would ask.”

“I'm getting confused again, sorry. This confusing people thing is so hard to explain. When we were growing up, our parents always mixed up me and my brother. My mother especially would yell out the wrong name all the time. I never understood why. And yet I do it all the time now... Sometimes, I try to understand why, and I guess people have thought about the details. Mostly, I think of it as naming certain situations, or behaviors, instead of naming people. With family, there are so many experiences of each other that you don't have with anyone else, that you start associating the name to the situation.”

No reply. Not that I was expecting one.

“I mean that it's the same situation. ‘Stop playing with your food! Pick up your toys!’ Exact same situation. Wrong name all the time.”

“Maybe it's just an early form of dementia.”

“xkcd had this comic about his brain being the only available measurement apparatus that can calibrate his brain.”

“That's a good answer to your assertion that you weren't drunk, by the way.”

“It's a funny business, the working of the mind. I honestly believe most of what we consider the mind doesn't actually play a role

in evolution. There are a few small benefits, important enough to select for it, but the rest is just us going crazy.”

“The peacock growing its tail is crazy. Evolutionary biologists have a lot of fun classifying traits by the reasons they evolve.”

“Yes, I’m too lazy to look up what their view on the mind is.”

“Well, at least you’re consistently arrogant.”

“One of us has to be a consistent character.”

“By the way, do you plan on making a pun with the word character, in the context of writing a book? I would advise against it.”

“I’m officially allowed to make dad jokes now, you’re not allowed to complain.”

Breaks in dialogue come at the expense of coherence. That’s one way of looking at it, because they provide the opportunity for each participant to pursue their own thoughts, diverging from everyone else.

“Sorry, but I gotta go now.”

“Oh. Right. See you later then.”

Virtual conversations are always awkward. Consistently awkward, if the dad jokes are allowed to continue. The mind can adapt, though. The mind wants to adapt.

I never had trouble coming up with poetic statements about the mind. At least, statements that I found somewhat profound. But it’s such a flexible thing, there’s no problem in saying stuff about it. A lot of the mind is built on stories, situations, and characters in stories. We first remember facts as they happen, which makes up a story. We communicate through stories.

Words themselves are stories, because their meaning changes through time. The poor makers of Corona beer got a first hand experience of that<sup>1</sup>. And I’m under the impression that english speakers

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<sup>1</sup>In case that someone is reading this and they haven’t heard of COVID-19, look it up. Pandemic of 2020, caused by a coronavirus, initially designated ‘corona’ by journalists. If this is still insufficient information, blame the editor.

will be happy to start using *atout* instead of *trump card*<sup>2</sup>. Although my ability to predict the future of any mind is questionable to say the least.

These days the great big walks I take are a ridiculous caricature. Short routes around a few houses. Still worth it, though. As I walk, I let my mind wander. And I wonder at the way we've turned descriptions of movement into descriptions of thought processes. The mind adapts, and context is crucial to understanding, and the meaning of words.

And it doesn't help that I can take walks in my head, just by closing my eyes. I know that some of the differences are important... First of all, there could be no mind-walking without previous regular walking. Beyond that, there's the wind, and noises, and actual movement... Interestingly, this may be a case where the expression is defective. I would be described as someone who 'lives in his head', but breathing is only partially in the head, and all of the other little details about walking, they all matter. I don't live in my head.

I guess this is where dancing comes in. This I did with Jason. There were Saturday nights when I'd walk around with Joe until about eleven, and then meet Jason to go to the club until two or three or whatever. Often Jeremy would also meet us there. Sometimes Jeremy would bring Jebediah along. Jebediah is big. Head and shoulders taller than everyone. And, like all proper giants, always friendly and fun.

So there we were. Corner of the club, out of the way, doing our thing. I guess when I was younger I'd sometimes refrain from dancing like nobody's watching, but in our corner I didn't. Obviously there couldn't be a lot of talking, although there was some screaming from time to time about various things. It's interesting how

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<sup>2</sup>Before 2016, what was commonly known in English as a 'trump card' was called an 'atout' in French. Then Donald Trump got elected US president. Since you're living in the future, you'll know what happened to the word better than myself.

something that I feel as a big part of myself has so little words in it.

It mattered. Looking back, there's a lot of ridiculous, but it felt important. I had a lot of confusing thoughts then, but there was a genuine delight in jumping around to the beat... well, I think it was to the beat, I never bothered to ask a professional. And I sometimes remember that moment, when Jebediah was impressed, because this had never happened to him before. The bartender actually came up to us and asked us to calm down, because we were 'dancing' too wildly. I guess all of it would have been worth it just for that moment, but there were others.

I would walk home alone afterwards, took about half an hour. I miss walking around at two in the morning... I would get home, close the door, and suddenly become aware of the noise in my ears. Muffling carpet will do that. Half an hour after getting out, and my ears were still complaining.

During the day Jason would play basketball. This is something I could never do properly. At least I can think to myself that I'm a better swimmer. Although I'm not sure. I remember going swimming with Jeremy, but not with Jason. Jebediah would just walk along the bottom of the pool, obviously.

I find this stream of consciousness thing fascinating. I'd hate to let it creep into my book, since books should be about properly constructed stories that actually have a point. But, personally, I was never that curious about drinking because I could always just think about stuff. Or maybe I'm just being a coward. But I do think reality by itself is confusing and complex enough.

What does it matter if I walk for five minutes or half an hour? There are puddles to avoid, there are little rocks and big rocks and trees and birds and the wind. Is it a puddle, or is my brain arbitrarily isolating a bunch of water molecules, when in practice there's constant exchange with the humid air around it, and the damp soil? Or is it my mind that's doing the isolating, with the brain simply providing an underlying infrastructure for the mind?

I don't know if I ever actually gave up on these questions. I find them fascinating. I like thinking about this. But I like knowing that another mind is interested in my mind more.

"Hi. I'm back." "This is me, making a noise because I believe I am looking at a person, another mind, at least as interesting as myself, and I think that is good enough to admit that I am myself encased in a fleshy bag that I can coax into creating linear perturbations in the air pressure field, just to point out that I am a mind, recognising that the other is a mind.' Isn't it wonderful, how much context we take for granted?"

"Hi."

It's hard to tell the truth[4]. There is a disconnect between my reality and what I think about my reality. I don't know if I can interpret my search for understanding as willful ignorance. But I am not happy because of what I think. I am happy because there are people who spontaneously hug me. And I am unhappy because my mind insists on interpreting and understanding all of the related feelings, despite me knowing that feelings are not rational. I am unhappy when I confuse understanding with control.

'So maybe it is willful ignorance.'

Everybody in their own room, with their own thoughts, kneading their life into threads and ropes to bind reality with. "There's the problem right there. Take words, twist them into sentences that they are not meant to say. And then marvel at the incomprehensibility of the universe, when all that's happened is that you're using the wrong tools for the job.'

All the different voices. All the different stories, each one speaking in its own voice. The innate "I want", tempered by the different stories that memory brings up for the context, and then suddenly I am an "I".

We now live in a metropolis with all of a hundred houses or so. The field next to us is a literal hay field. And the ones in the back

of the house are planted with corn and whatever else. I love the so-called street in the back, because it doesn't have any lights. And the winter nights here are mostly foggy, which is an unexpected surprise. The kids didn't like it the first couple of times we took a stroll through the dark, but they're getting used to it.

Yesterday we walked all the way to a chicken enclosure. Between the various plots of corn and wheat there are relatively small squares where chickens get to run around and be chickens. We guessed these chickens lay the bio-eggs available in stores nearby. They're not lonely. I think someone visits them at least once a day. And they have three goats with them, too. 'Is this derailment too obvious?' Having to stay away from crowds of more than five people, we could have been stuck in a less pleasant situation.

There's also the river. I saw actual swans on it at some point, all dignified while looking down at the tiny brown grey ducks. Probably just looking down because they're taller, and giving absolutely no thought to anyone's dignity.

It's what I do sometimes. I look at the world, and I put meaning into it. Even though it only makes sense to me, it's often close enough for other people to sort of see it. I doubt the swans would agree though.

She was right to tell me it's wrong.

So then I ask. I ask about objective reality, and I assume that if I am to understand 'the other's' subjective notions, I only need to go from my subjective to the objective, and then up the different ladder to the other subjective. And this tells me all kinds of things. I don't really want to learn about Gödel's incompleteness theorem. My current state of ignorance allows me to liken the lack of a deductive thread from the laws of physics to the mind to a fundamental inadequacy of math. The mind is transcendent not because it can act unnaturally, but because even a correct description of the universe will not provide a tractable description of the mind. I actually like this statement. 'Literal state of willful ignorance?'

‘I wonder if Gödel would be happy to know that someone found him in a flock of chickens. I know I would.’

Maybe that’s where time comes from. The universe says to itself: all soldiers who do not shave themselves must be shaved by the company barber<sup>3</sup>. Then the company barber makes a list of all the soldiers who do not shave themselves, and shaves them. Then the officer complains that the barber is not shaven. Then the barber is made exceptional, to resolve the paradox. And the universe ticks. And the resulting state leads to another paradox, and the universe ticks again. ‘There’s a career-ending idea right there.’

In any case, the fact remains that there are chickens running around. And goats. There are people who live and die through subsistence farming. And someone is in my head telling me that instead of fanciful musings on the nature of reality, I should be working on fixing real problems of real people. Which comes back to the fact that I don’t know how to fix the problems that people have, because most of them are not real problems, they are people problems. The paradoxical compulsion to understand and improve speech, while putting off the speaking part until speech can be used properly. When in fact everyone just wants a hug in front of a fire, and a good story during dinner.

After dinner, the quiet child on the brink of adulthood can go back to its room, and adjust the various dials on the machine that’s guiding the planets circling around in the semidarkness, years and years of training to juggle the ten different tasks with its five tentacles finally paying off. ‘Or something like that. Never leave out the interpretation.’

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<sup>3</sup>Yes, sometimes my brain speaks to me with Bertrand Russell’s words.

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# notes

It's not obvious to me how much is original here.

Terry Pratchett did a much better job talking about Death as tall, dark, gruesome and confused. And I stole the chain cutting idea from "BLEACH", the manga by Tite Kubo.

I wouldn't be surprised if the whole thing is a mishmash of misinterpreted stuff-that-I've-heard-or-seen, but it doesn't seem that way right now. Please don't be shy about putting me in my place if I'm wrong though.

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