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First published in *TransVersions: An Anthology of New Fantastic Literature*, November 2000

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“I’m going to have to kill you,” I said to myself, matter-of-factly.

The face looking back at me across the desktop was my own, of course, but not the way I was used to seeing it; it wasn’t flopped left-to-right like it is in a mirror. The other me reacted with an appropriate mixture of surprise and disbelief. The shaggy eyebrows went up—God, why don’t I trim those things?—the brown eyes widened, and the mouth opened to utter a protest.

“You can’t kill me,” he—I—said. “I’m you.”

I frowned, disappointed that he didn’t understand. “You’re a me that never should have existed.”

He spread his arms a bit. “Who’s to say which of us should have existed?”

One of the interesting things about working in the publishing industry in Canada is this: it’s full of Americans who came here during Vietnam. And, even if they didn’t want to go to war, some of them *do* know how to get guns. “Who’s to say which of us should have existed?” I repeated. I took the Glock 9 mm that Jack Spalding had procured for me out of my pocket and pulled the trigger. “I am.”

* * * *

I was at home with Mary, my wife and, until everything had fallen apart, my business partner. We were in

our bedroom, and I was trying to get through to her. “Don't you see?” I said, sitting on the edge of the bed. “None of this is real—it can't be.”

She sat down next to me and began brushing her hair. “What are you talking about?”

“You. Me. This bed. This house. This *planet*. It's all faked. It's all a computer-based simulation.”

Mary shook her head slightly. She hated it when I talked like this.

“It's true,” I said. “It's true—and I can prove it.”

She pressed her lips tightly together, and blew air out of her nose. She didn't say “How?” She didn't say anything.

I wished there were a more obvious way. I wished I could grab hold of—of that wall there, say, and pull it aside, revealing the machinery beyond, but, of course, I couldn't. The wall was simulated perfectly; the rest of Toronto was simulated perfectly, too. So was all of Canada, of North America, the entire planet. There was no place I could take her where she would see that corners had been cut, see scaffolding propping up a false front to a non-existent building. This Earth—at least all of its surface, and its atmosphere thinning out to almost nothing a few hundred kilometers up, and its rocky crust, and maybe even some portion of its mantle—were flawlessly reproduced.

But *eventhey* had limits. Yes, they could reproduce Earth, or as much of it as humans could ever access, but—

“Look,” I said. “Imagine a space probe that could travel at one-tenth the speed of light.”

She was staring at me as though I wasn't even speaking English anymore.

I pressed on. “Imagine that space probe, taking decades to get to the next star. And imagine it finding raw materials there to build ten duplicates of itself, and then sending those duplicates, at the same speed, to ten other nearby stars. Even if it took fifty years to find the raw materials and make the duplicates, and fifty more years for those duplicates to travel to their target stars, if the process continued, how long do you think it would take for such probes to colonize the entire galaxy?”

“What are you talking about?” said Mary again.

“Sixty thousand years,” I said, triumphantly. “Give or take. One single probe, launched into space by any civilization anywhere in the Milky Way, could colonize this whole giant galaxy in just sixty thousand years.”

Our little publishing company had been called CanScience Books; I'd been editorial director. Mary didn't know much about science, but she was a wiz at accounting. “So?”

“So,” I said, “the universe is maybe twelve billion years old.” I grabbed her shoulders. “Don't you see? Someone somewhere *must* have launched self-replicating probes like the ones I described. This planet should have been visited by them ... but it hasn't.”

“Maybe there aren't any other civilizations.”

“Of *course* there are. There must be.” It drove me nuts that she never read the books we'd published.

“Everything we know about physics and chemistry and biology says the universe should be overrun with life. But none of it has come here.” I shifted my weight; maybe I shook her slightly. I so much wanted her to see. “And what about SETI? The search for extraterrestrial intelligence? We've been listening for half a century now and haven't picked up a thing. We shouldn't need to do anything more than point a radio dish up at the night sky to pick up thousands—millions—of alien signals. But there's nothing.

“And think about the moon. Do you know how many people have gone to the moon? Twelve! That's all, in the total history of our race—twelve people have stood on its surface. And no one has gone back; no one even has *plans* to go back. And what about Mars? We should have landed on it within a few years of going to the moon, but no one's made it there—and, again, no one is planning to go. And the space probes we send there keep failing. The Mars Climate Orbiter, the Mars Polar Lander—complete write-offs! I mean, let's be real: an important mission to Mars junked because some engineer couldn't convert between imperial and metric measurements? It's unbelievable.”

“I still don't see—” began Mary.

“Let me spell it out, then: it's one thing to simulate the Earth. That's a big computing problem, sure, but it's doable.”

“Not on any computer I've ever seen,” said Mary.

“Well, no, of course it's not doable *yet*. But it will be. Eventually, the Earth and everyone who ever lived on it *will* be simulatable on sufficiently advanced computers.”

“When?” said Mary.

“Who knows? A million years from now? A billion? Ten billion? Or maybe—Frank Tipler wrote about this—maybe at the very end of time, as the universe is collapsing back down in a big crunch. Eventually there *will* be sufficient computing power to simulate the entire planet and everyone who ever lived on it.”

“How would they know anything about us?” asked Mary. “How could they possibly simulate you and me without records of what we were like?”

“They won't *need* any records.” Why couldn't she see this? “A human being consists of about thirty thousand active genes. That means that there are about three-to-the-millionth-power possible genetically distinct humans. And there are about 2-to-the-10th-to-the-17th power possible human memories. Multiply it all out, and you'll find that you could reproduce all possible versions of our world—including every possible combination of human beings, with every possible set of memories—in 10-to-10th-to-the-123rd bits.”

“Ten to the tenth to...”

“To the 123rd, yes,” I said. “And that amount will surely eventually be computable. Meaning that you could—well, Tipler used the word ‘resurrect,’ and that's as good as any—you could resurrect everyone who ever lived as computer simulations, without knowing anything specific about them.”

Mary looked at me. “And you think that's what we are? Resurrected versions of people who died billions of years ago?”

“We *have* to be. It's the only thing that explains the absence of extraterrestrial probes here, or of radio signals from other civilizations. To simulate Von Neumann probes—that's what those self-replicating

robots are called—and the chatter of alien races would mean simulating the rest of the universe, with its billions of different lifeforms. But they don't have enough computer memory—or, if they do, they consider it wasteful. So, yes, this world *seems* real to us, but it's fake. It has to be.”

“Oh, Erik,” said Mary, shaking her head, then letting out a sigh. “Go to sleep.”

She kissed me and lay down.

I lay down too, but it was hours before I fell asleep.

* * * *

If I'm a computer simulation, created millions or billions of years in the future of what I think of as the present, and if I was created simply as one possible human being with one possible set of memories, do other versions of me exist?

Did the simulators—whoever they are—pick one state of humanity at random for their experiment? Maybe. But Tipler said they would actually simulate *all* the possible states.

And if they did—

If there are other versions of me—

All the horrid things I'd ever thought about doing: the stealing, the cheating, and, yes, the murders. In other parts of this vast computer simulation, there must exist other Erik Hansens who had done those things. Some, of course, will have been arrested for their crimes, and will be paying their debts to their simulated societies.

But others...

I once heard a statistic that ninety percent of men would commit rape if they felt sure they could get away with it. I'd never believed that figure; rarely did I meet an attractive woman that I didn't have at least a passing thought about having sex with, but never would it occur to me to force myself upon her.

Well, almost never...

If they had simulated this me, they could have simulated *that* me, too—indeed, all the other possible mes: a me who had raped Connie Hughes in high school, when she hadn't wanted to go as far as I'd wanted to; a me who had stolen a thousand dollars from Gideon Dillings; a me who...

Mary and I hated to even mention his name: *mybête noire*, the bane of my existence. Roscoe Harada, that goddamned son of a bitch...

Yes, the version of me who had done what I had fantasized about doing. The version of me who had caved in Harada's brow-ridged cranium with an aluminum baseball bat...

And the version of me who had shot him in the face, watching his skull open up like time-lapse film of a rose blooming...

And the version of me who had pushed him off the Bloor Street viaduct, letting him fall to the Don Valley Parkway, his body going *splat*, and then being run over by car after car after car...

They were *all* conceivable memory states. And if they *were* possible, then perhaps they did exist in other iterations of this simulation.

And that was intolerable.

* * * *

It took a while to work it out, but I could now slip between worlds. I rather suspect the designers of the simulation didn't know I was doing it. Sure, murders were occurring as I eliminated other versions of myself—versions whose existence I couldn't countenance. But murders happen all the time. And if there were billions of versions of reality, well, on any given day, the same person would be snuffed out in millions of them anyway.

As I'd guessed, the simulators apparently had constraints on how much memory they could use, and so had decided to reconstruct Earth but none of the rest of the universe—at least not in any detail. And since there *were* memory constraints, some sort of data compression was being employed. Whenever the operating system saw that there were two or more identical versions of any given object, rather than code them both twice, it apparently would code only one version and simply put a pointer to it in the other iterations of the simulation.

I've always had an eidetic memory and a vivid imagination—I dream in color, unlike Mary. By fully and completely imagining myself to be as I would have been in one of the alternative realities, by essentially convincing myself that *I had* killed Roscoe Harada, even for an instant, the operating system saw this me and the other version of me as identical. And then—don't ask me how I did this; I can't explain it any more than I can explain how I walk—I manage somehow to access the pointer registry, and slip into the version of the simulation in which that other me, the one I was imagining, does exist.

Granted, not everything I could imagine is possible. I could imagine—indeed, relish—an image of a world in which Harada had fallen down some stairs and broken his back and then, later, in which he and I had ended up in a knockdown, drag-out fistfight in which I pounded him into a bloody pulp. But, of course, if he were paralyzed, the subsequent brawl wouldn't have been possible. No, there was no pointer *to that* world.

But to other possibilities, the pointers did exist.

And I traveled to them, world after world, iteration after iteration, putting an end to the unconscionable versions of me.

* * * *

“I'm sorry, Erik,” I said, “but I've got to kill you.”

Of course, the other me wasn't in my office at CanScience—he couldn't be. In any iteration in which I still had that office, cramped though it had been, Harada would still be alive. Instead, I was confronting him in the basement of our house; it was 10:00 a.m. on a weekday, but I guess his shift didn't start until later today.

The voice of the other me was edged with panic. “Why would you want to kill me?”

“Because you murdered Roscoe Harada.”

The brown eyes darted left and right. There was only one way out of the basement—up the wooden staircase—and I was blocking that. “You can't prove that.”

“I don't have to prove it to anyone but me. I'm here—in this version of the simulation—because I imagined a world in which we'd killed Harada with a knife to the left kidney. If that *wasn't* what really happened here, I wouldn't have been able to transfer to this iteration.”

The other me hesitated, as if unsure what to say. Then he frowned. “So what if I did do it? You must have wanted to do it, too. After what he did to us—”

“I don't dispute that he should be dead. But what makes us better than Harada is that we never did anything awful to him to get even. And I can't live with the knowledge that a version of reality exists in which we did.”

“But if you kill me, then you'll be a murderer, too.”

“Is it murder? Or is it suicide?” My turn to frown. “Perhaps it's neither. Perhaps it's just me setting things straight.”

“This won't bring Harada back to life in this iteration.”

“No. But it will serve as a fitting punishment for his death, allowing me to enjoy my existence without guilt.”

“But, look, the many-worlds interpretation of quantum mechanics says that—”

I cut him off. “It says that even in the real, non-simulated world that must have existed at one time, whenever an action can go two ways, it *does* go both ways, but in separate universes, spinning off new timelines for each possible version of reality.”

The other me nodded vigorously. “Exactly. So this vast multiplexed computer simulation is no different from that.”

“Except that John Cramer's transactional interpretation solves all the quandaries of quantum physics without recourse to parallel universes. If this were the real world, I could believe that Cramer was right and Hugh Everett was wrong, and there was only one timeline. But here I know—*know!*—that there are versions of the simulation in which all the base things I've ever thought of doing actually happened. And if I'm going to have peace—”

“If you're going to have peace,” said the other me, with resignation, “you're going to have to put an end to me.”

I squeezed the trigger and said “Exactly,” but the bark of the Glock drowned out the word.

* * * *

What did Roscoe Harada do to me, you might ask? CanScience was a small publishing company, and he was the buyer for a large bookstore chain. We solicited pre-pub orders for a book called *Y2canucK: A Canadian Guide to Preparing for the Year 2000*. For us, a thousand copies was a normal print run. Chapters had taken four hundred copies; Indigo, a hundred and seventy-five. And then Harada's order came in for his company: 25,000 copies, by far the biggest order we'd ever had.

We printed the books and delivered them: five hundred and twenty cartons, all shipped at our expense to Harada's warehouse in Oshawa.

And Harada had his people sit on them, never even putting them out into the stores.

And then, in January 2000, he returned them all. Every single copy. They were in the same cartons we'd shipped them out in; they'd never even been opened.

Y2K didn't turn out to be a disaster—so said all the newspapers.

But it was a disaster for Mary and me.

Books are fully returnable, and Harada's chain had used its buying clout to get not just CanScience but all publishers to offer them extended payment terms. The books came back before his company had ever paid a single dime on the original invoice.

And, of course, there was no longer any market anywhere for that title.

I couldn't pay even a fraction of the printer's bill, and the printer sued, forcing Mary and me into bankruptcy.

We lost our company.

We came within inches of losing our home.

Why had Harada done it? Because I'd spoken harshly about his company's bullying practices in an interview in *Quill & Quire*, the Canadian publishing trade journal.

Why had he done it?

Because he could.

Of course maybe neither he nor I had ever really existed. We were merely possible combinations of genes, recalling possible permutations of memory. Maybe all these iterations of him and me have no basis in reality.

In which case, killing him wouldn't be so awful. After all, maybe he never was meant to exist. Maybe I was never meant to exist, either.

No, no, when you came right down to it, killing him would not be that bad. And it would be a way for me to regain mental peace, wouldn't it? I didn't like arguing with Mary; I didn't like laying awake at night, haunted by what had happened.

If I killed Harada, if I made him pay for what he'd done to us, then maybe I could relax. Mary and I wouldn't get our publishing company back, but at least I'd have the comfort that came with knowing he hadn't gotten away with it.

And—let's face it—there must be trillions of iterations of the simulation, if all theoretically possible humans have been generated. I'd made a start, to be sure, but I couldn't possibly track down all the versions of me that have already gotten rid of Harada.

But if I killed him, too, in *this* reality—

Well, then, I wouldn't be so tortured by the existence of other versions of me who *had* killed him, and—

No.

No, dammit, no.

Be honest with yourself, Erik.

I'm not tortured by them.

I'm *jealous* of them—jealous that they get to live in worlds without Roscoe Harada, and I do not.

But if I joined them...

If I joined them, I'd at last be free.

The smorgasbord of possibilities made me giddy. Stabbing? Gun shot? Electrocutation? Drowning? Poison? Dismemberment? Running him over with my car? Hacking away at him with an ax...

I savored the options, but finally came back down to Earth. It didn't have to be anything dramatic; indeed, I didn't have to do it myself. In fact, I probably *shouldn't* do it myself. When I need wiring done I call an electrician, because I'd just mess things up if I tried to handle it on my own.

So why not call a professional this time?

* * * *

The phone call came a week later. Just two words, in a lilting Québécois accent: "It's done." I didn't tell Mary, of course, but it was the lead story on the *CityPulse News at Six*: "Book company executive found shot to death."

Mary and I made love that night like we hadn't for years, like we were the only people in the universe.

I was free. At last, I was free of Harada.

Mary left for work in the morning—she, at least had a marketable skill; she'd found work at a midsize accounting firm. But I decided to call in sick—I worked as a clerk at the Chapters superstore in Bayview Village now, making not much more than minimum wage. But at least I was still in the book business—although nobody from the trades ever called to ask me for a quote anymore.

No, today was a day to kick back and, for the first time in years, it seemed, to relax.

I didn't think much of it when I heard sounds coming from downstairs a few minutes after Mary had left; she often forgot her purse or gloves and had to come back to fetch them.

Still, I decided to head down. Maybe I could entice her to stay home, too. We could spend the day drinking wine and making love, and—

I should have seen it coming, of course.

Downstairs, in my living room, was another version of me, holding a gun. He looked into my eyes, and I looked into his.

“I can't live knowing that what you've done is going to go unpunished,” he said.

“He deserved to die,” I said. “You know that.”

The gun was pointed at my chest, unwavering. The other me said nothing.

“You want him out of our lives—out of every version of our lives—as much as I do,” I said.

“But I can't countenance what you did,” said the me with the gun. “It's not right.”

“But it's what we wanted.”

“But to live, knowing that you've done this and will likely get away with it...” he said. “I'm sorry, but there *has* to be a version of us that is at peace.”

And, as the gun fired, I realized, there was—or, at least, there was about to be.

And it was me.

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