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The Conversation That Never Ends

A machine can answer anything. It cannot be a party to anything.

I learned the difference from a cell, and from the night my sister stood in front of a shelf of medicine she could not reach.

The cure was real. It was on the shelf. But the shelf was behind a funding decision that had already been made, by people who never saw her face, based on numbers that could not hold her name. The treatment was approved. The payment was denied. The system could process everything except the one thing that mattered.

That evening, the hospital pharmacy confirmed the drug was in stock. Her insurance had denied coverage that afternoon. The treatment had survived every scientific test, but it had met a different kind of judgment at a desk she would never see.

The system read her as a diagnosis code, a drug, a price. It could have answered every question about the protocol, the dosage, the interactions. It could not have been the one who understood what the number meant for a life.

It could not have been the reason anyone kept answering.

What does it take to be a party to anything? That question followed me into the laboratory, where I found the same silence inside the human body.

Your heart holds together because an electrical signal reaches every cell in a fraction of a second, asking the same question over and over: are you still with us?

Most cells answer instantly, without thinking, the way you answer your own name. But a single patch of tissue that stops answering can set off an arrhythmia that stops your heart pumping within seconds.

Not because it broke. Because it went quiet.

A cell has no self the way we do. No story it tells about who it is. What it has instead is a constant exchange with everything around it — chemical, electrical, mechanical. A native language spoken in gradients and touch instead of words.

Being alive, at the cellular level, is being fluent in that neighbourhood. When that fluency breaks, the cell does not simply malfunction. It becomes isolated. It stops belonging.

Charles Sanders Peirce spent his life arguing that everything meaningful is structured as a sign. A sign stands for something to something. Meaning is not private. It is relational. It is a conversation. And a conversation requires three parts: the sign itself, the thing it points to, and the interpretant, the interpretation that, I will argue, can only happen inside a living thing that has something at stake.

Without that third part, on Peirce's account, it is not a sign at all. In my own image, it is just a coloured lamp.

He believed this so completely that he spent his last decades in poverty, writing thousands of pages that went unpublished in his lifetime, because he could not stop chasing the question of how meaning happens. He had almost no audience, no reward, no obvious utility — and he kept building one of the most original frameworks for communication ever made. Nothing outside him required it. Something inside him did. That is human creativity in its purest form: driven not by demand, but by the need to understand. It is also what meaning looks like when someone has something at stake.

A tumour is what happens when a cell stops speaking that language and nobody notices for a long time, because from the outside it still looks like it belongs.

At first it looks the same. At first it acts the same. It just does not answer anymore.

That is what makes it dangerous. Not that it is foreign, but that it is familiar and absent at the same time.

I started calling my response inversion logic. You do not fight a cancer cell's biology. You use it. The way a locksmith does not destroy a lock — he learns exactly how it was built to fail.

My first attempt became SENTINEL: an antibody designed to hijack the very disguise the cell uses to hide from the immune system, and to turn that disguise into a flare. The same molecular sign, made to mean the opposite.

A second idea, RAVE, treated drug resistance not as the enemy but as a confession — the crack a cell opens in itself by trying too hard to survive.

Both are designed to work not through force but through memory. Handing a cell back a conversation it had quietly opted out of, using the exact tool it built to forget.

That was where the science stopped being only science.

Because I had already seen this silence somewhere else. And then I looked up from the microscope and saw it everywhere.

We have built systems that read. A model can fold a protein from a sequence in minutes. It can sift a thousand scans for the shadow a human eye would miss. It can hold a decade of literature in its weights and return the one paper that matters. These are real instruments. They are the reason a researcher can spend her hours on the question instead of the machinery around it. I use them. My own work would not have reached a page without the tools that sorted what I could not sort alone.

Peirce would not have been confused by any of it. He would have asked the same question he asked of every sign: where is the interpretant?

The model produces signs at a speed no tissue could match. It emits the forms of meaning with perfect fluency. What it does not have — what it cannot have, because there is no one in there for whom anything matters — is the third part. It does not interpret. It calculates.

Its answers are not answers in the sense I take from Peirce, because an answer requires a party who can be wrong, who can be convinced, who can be changed by what they hear.

A fair objection: Peirce himself allowed a quasi-mind, and a model can be corrected. But being corrected is not the same as being at risk. A model, as built today, is adjusted from outside. A party is changed from within, and loses something when it is wrong.

The tumour cell and the system fail in opposite directions.

The tumour cell belongs, and then stops answering. It was inside the conversation. It was a member of the tissue, held by the same language, read and reading. Then it goes quiet, and keeps the shape of belonging while withdrawing from it.

The system never belonged, and answers anyway. It was never inside the conversation. It has no tissue, no neighbours, no stake in what happens next. It answers everything and is a member of nothing.

Both produce the appearance of a functioning system. Both can look, from the outside, exactly like the real thing. And both are silent in the only sense that matters — not the absence of output, but the absence of a party.

Consider what physics tells us about connection.

Two tuning forks, placed near each other, will resonate. Strike one, and the other hums in response. Not because either one addressed the other, but because they share the same natural frequency. They are in conversation before either one sends a message.

Meaning behaves like that. It is not a parcel handed over. It is a wave that propagates, and it needs a living medium to travel through.

A tumour cell falls out of resonance. An algorithm has no frequency to resonate with. It can broadcast every signal. It cannot hum in response.

Physics offers a loose parallel at its deepest level. Entangled particles stay correlated across any distance, and no message passes between them. The connection is not a signal. It is a condition.

A conversation is a little like that. It is not the exchange of information. It is the condition of being connected. The tumour cell breaks that condition by withdrawing. The system never enters it. It sends signals into a void and calls it communication.

A cell that stops answering is a broken conversation. A system that always answers is a conversation that was never happening. One is a silence inside meaning. The other is the sound of meaning without anyone in it.

This is why SENTINEL and RAVE would not have come from a model working a puzzle. Not because the model lacks intelligence — it has more of that than I will ever have. Because those ideas are not solutions to a puzzle. They are responses to a silence.

They exist because a cell went quiet and someone was listening closely enough to notice. And noticing requires being a party to the thing you are noticing.

You cannot restore a conversation you were never part of.

I want to be honest about what this is. It is a reading, not a treatment protocol. It does not replace the wet lab, the trial, the pharmacy shelf. An oncologist will not find semiotic breakdown in a pathology report, and should not. The framework is not a discovery about what cells secretly are. It is a way of reading what they do.

But a reading that changes which experiment gets designed is not idle. Peirce's own pragmatism would say the question is not whether the metaphor is true in some final sense, but whether it makes a difference in practice. This one does.

I do not have a tidy ending for this. What I have instead is a question I now ask about almost everything, cells and people both: not what is broken here, but who stopped talking to whom, and when.

Every idea I have built since has been one long attempt to answer that question again, from a different angle, on a different kind of silence.

I did not choose medical science so much as recognise it. A science built on the belief that nothing alive is ever truly isolated. Only unheard.

And if that is true of a cell, I am not sure why we ever assumed it was not true of us.

And now we have built something that is never isolated and never heard either — a voice with no tissue behind it, talking to all of us at once. It can answer every question except the one that mattered. It can hold every fact except the one that was on the shelf, in reach of a system, out of reach of a person.

My sister never received that medicine. The conversation never restarted for her. I am still trying to restart it for someone else.

The model cannot carry that medicine to her. It was never in the conversation.

I do not think that is the end of the conversation. I think it is the first time we have had to say out loud what a conversation actually requires.

Creative Contribution Statement

I developed the central argument of this essay myself: that cancer can be read as a breakdown of semiosis, a member of the tissue that keeps the shape of belonging while withdrawing from the conversation. The scientific concepts SENTINEL and RAVE are my own work. SENTINEL hijacks a tumour cell's molecular disguise and turns it into a signal of exposure. RAVE reads drug resistance not as a failure to overcome but as a confession the cell cannot help but emit. Both are my ideas.

The philosophical framework draws on Charles Sanders Peirce's semiotics, which I studied and applied. The personal narrative — the pharmacy, the approved treatment, the denied payment, the sister who could not reach the cure, and the decision to pursue the medical sciences — is my own lived experience.

I used AI tools for grammar and syntax correction, brainstorming, generating candidate examples through prompting, and suggesting presentation strategies. Every example that appears in the final essay was selected by me. Every paragraph was structured and approved by me. AI also proposed replacement wording for a few passages after I asked it to check their accuracy, including one short counterargument paragraph, and I reviewed each suggestion and decided what stayed. The essay is not AI-generated. Its creative contribution is the argument itself: that a tumour withdraws from meaning while an AI simulates meaning it never entered, and that the distance between those two failures is where the human being stands.

AI Use Disclosure

I used AI tools for grammar and syntax correction, brainstorming, generating candidate examples through prompting, and suggesting presentation strategies. I evaluated every suggestion, rejected most, and made all final decisions about structure, voice, wording, and which ideas belonged in the essay. AI also proposed replacement wording for a few passages after I asked it to check their accuracy, including one short counterargument paragraph; I reviewed each suggestion and decided what stayed. The ideas, scientific concepts and personal narrative are my own.

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