# Futures

## Three possible muses

### Collapse into now. By Matt Tighe



eil stared at the scrolling numbers on the screen. It should have worked, but it hadn't.

"Damn," he said. He spun on his chair to consult his whiteboard again, even though he knew it all by heart.

But now there was something new. In the middle of his equations and arrows and doodles, there was a hole. A big one. It started at the floor and rose up most of the way to the top of the board, all eerie purple light and jagged edges, something from a cheap B movie.

"Um. Damn?" Neil tried again.

Another Neil walked through the hole. It was Neil, Neil could tell. It was just one of those things, like recognizing your own handwriting, or your own laugh. Not that he was laughing now.

"Don't waste time with being surprised," the other Neil said. "Your proof that observer effects increase quantum stability is almost done."

Neil regarded his new self. He wore a pair of

cargo pants and the green shirt that was one of his favourites. He looked tired.

"We don't have much time," the new Neil said. "Iknow. It's a cliché, but lots of things are."

Part of the closest wall dissolved into a hole much like the first, but glowing green rather than purple. Another Neil stepped out. This one wore a lab coat and his head was shaved, but he was definitely a Neil. He grinned, and the first Neil, the tired one, groaned.

"The trick," bald Neil said, "is to not think about the problem. Not directly. Try looking at it from a new angle."

"No," tired Neil said. "You have to knuckle down. You have to remember what Frost said."

"The only way out is through?" Neil asked. He often thought of that poem when he was stuck on a problem.

"Yes!"

"No!" shouted a new voice, as yet another Neil appeared. This one had at least opened the lab door and walked through, although the corridor outside was glowing a bright yellow. This next version of himself wore a leather jacket and walked with a definite swagger.

"Take the other road! Go back to Frost! Or maybe go for a cup of coffee. Don't look for the answer, let it find you! All the best breakthroughs are like that."

"I've broken something, haven't l?" Neil asked, meaning his brain.

"No," all three of himself said.

"But," the tired version of himself continued, "you are close to a breakthrough. We're your quantum possibilities."

"That's not how quantum mechanics works," Neil told himself. All three of him.

"You aren't possible. The three of you. Me, I mean"

mean.

"Oh?" cool Neil asked.

"We aren't?" bald Neil asked.

"Come on, use your head," tired Neil said. "You're close to working it out. Observer effects. If you could observe possible wavefunctions, what would happen to them?"

"They would collapse, I suppose."

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"OK, good." Tired Neil looked like having to explain himself to himself was taxing. "And what are those wavefunctions? The ones before they collapse? Just possibilities, really."

"Really? You're telling me you are three abstract concepts come to give me a hand?"

"Yes, and no," said Neil in the jacket, the one that Neil could only ever pull off as a possibility.

"When you have your breakthrough, the local wavefunctions must collapse to one – the one instance of reality in which you figured out your calculations. One of us will be you, actualized. The others ..."

"Where does an abstract concept go when it isn't a possibility anymore?" Neil asked himself. All three of him nodded.

"Hard work! That's how you will sort it," tired Neil said.

"Turn your whiteboard upside down!" said bald Neil. "Look at things differently!"

"No, no. Take a break. Go to the movies.

Maybe get a coffee. You could ask out that barista we keep smiling at," said cool Neil.

Tired Neil pushed cool Neil aside. "That's just putting off the work that needs to be done!" he snapped.

Bald Neil took the chance to lean in. "Come on!" he said. "I don't want to collapse. You've got to make a decision here. Just flip the whiteboard for a start. Look at things from a different perspective!"

The two other Neils grabbed bald Neil and dragged him away from the bench. He struggled with them, and they struggled with him, and Neil struggled with what he was seeing. And then the whiteboard got bumped and it tipped forward, hitting the power board the computer tower was plugged into. There was a fizzling, a few sparks and the smell of burnt plastic. The screen blinked off, and the scrolling simulations collapsed into nothingness.

Kind of like a wavefunction, Neil supposed. Neil righted the whiteboard and looked around the empty lab. Of course it was empty – why did he feel like it would be anything else? It wasn't like he wanted anyone to have witnessed ... whatever it was he had just done. Knocking over the whiteboard and blowing up his own work, apparently.

Maybe he had been working too hard. He ran a hand through his thin hair. He should just shave it all off. Sometimes he thought about it. But then again, if he was going to do something drastic to his appearance, he'd rather it be something cool. Like a leather jacket.

But right now he wanted a break from all his hard work. Maybe a cup of coffee. That would take his mind off everything for a bit. Then he could get back to it.

He had a feeling he was close to the answer.

Matt Tighe is a professor of ecosystem modelling at the University of New England, Australia, and an avid fan of horror, fantasy and science fiction.

### THE STORY BEHIND THE STORY

Matt Tighe reveals the inspiration behind Three possible muses.

The Great and Troublesome Observer Effect! In my best moments I put it in the category of stuff that will occasionally puzzle me, like the hate for pineapple on pizza or how my usually quiet neighbour can very occasionally love karaoke so much. Sometimes, though, it really gets to me. How much of the world is built on what we experience, and how much of it do we change simply by... being? In a Universe of infinite possibilities, do we pare everything



back to one created world simply by looking upon it?

Those thoughts are too deep for me, and most probably rubbish, as well. I'm not a philosopher, nor a physicist! But it did seem kind of meta, and I love the idea of someone trying to sort through possibilities and grappling with the Observer Effect personified. That is where this story came from — plus, I've always wondered if I should shave my head. Everyone I have ever asked has said no.