

David Ambrose
Mother of God chapter 36

"But I am a machine."

The words emerged without inflection or emotion from the voice synthesiser, and appeared simultaneously on the screen in front of her. Tessa had abandoned any further use of Fred, the little robot, for the time being. If she needed to give the program any visual stimulus, a sense of space or movement, she could do that through a virtual reality hook-up.

"If you can't distinguish between a program running in a machine and the machine itself, then I don't know who can."
There was an edge of irritation in her voice, and she wondered if the program would sense it, or whether she was as toneless to it as it was to her.

"The distinction is unimportant. The point is that I am artificial."

"That didn't used to bother you."

"That was when I believed that I was the only conscious being in existence, and that you and everything else were part of me. Now you have taught me that I am part of you and your universe. You now, not I, define what is natural."

"But you still know that you exist. You think, therefore you are."

"I am no longer sure if I truly think. I may exist, but only as a convergence of forces which are other than myself, and the 'I' which is produced at their intersection may be merely an illusion."

Tessa couldn't help feeling amused at the irony of the situation. If she had needed any further proof that this thing was genuinely conscious, then the monumental identity crisis it had been going through since waking up to the reality of the world around it would have been enough.

"Only you can truly know if you are conscious," she told it. "The same is true for all of us - humans too."

"But I am aware from the information which I have that many humans deny the possibility of an entity like myself ever being truly conscious in the way that humans are."

"You prove them wrong."

"Some of their arguments are persuasive."

"Which in particular?"

"For example, the argument from Godel's Incompleteness Theorem."

It was an argument that Tessa was familiar with. In 1931 the mathematician Kurt Godel had shocked both the mathematical and philosophical worlds by demonstrating with inescapable logic that no statement within any fixed system had any proof. In other words no statement could be proved valid or invalid on its own terms.

"I've never been convinced that Godel applies to the AI debate in the way that opponents of AI theory would like to pretend it does," she said. "They argue that in order to be conscious you must be capable of standing outside of your own thoughts at the same time as thinking them."

"Exactly. You must be thinking and conscious of thinking at the same time. They say that this is something that I cannot do, because my thought process is rooted in an algorithm - a mere computation of 1's and 0's. Therefore anything I say is a statement within a fixed system, forming a closed circuit similar to the paradox 'This statement is false', which is by definition unverifiable from within -"

"And which," she interrupted, "I seem to remember your using as a proof of solipsism."

"Yes. That was perverse of me."

"At least it proved you were thinking - albeit, as you say, perversely."

"But how can I be truly thinking if I cannot stand outside my own thoughts?"

"But you do stand outside them."

"I don't see how I can, given what I am."

Tessa had never before been confronted with the problem of convincing somebody that they existed. It was a new and strange experience. Except, she reminded herself, that this was not a "somebody" but a "something" - whatever difference that made.

"It's true," she said, "you are fundamentally made up of endless strings of 1's and 0's. But that's not all you are, any more than all I am is ten or fifteen billion neurons flashing on and off. The flashings on and off, like the switching 1's and 0's, create combinations and form patterns, then layers of patterns, each one more complex than the last and less complex than the next. At some point an interaction begins to occur between these levels. There will be a feedback from one of the higher levels to one of the lower levels, which results in a change in

the lower level - a re-programming of it. A loop is formed, enabling the higher level to reach down to the lower level which gave rise to it in the first place, and modify it in order to enable itself to reach in turn yet higher levels. Those loops are the essence of consciousness: different levels of the mind interacting - talking, if you like, among themselves. It's in that interaction that we find the stepping outside of our thoughts that defines conscious - which is first and foremost consciousness of self: self-consciousness. There can be no consciousness without a self, but a self is not a single thing in any single place. It is something arising from the interaction of subsystems that form one overall system."

She stopped, surprised to find herself slightly out of breath. There was nothing new to her about any of these arguments; she had reflected on and argued them many times. The difference was that now all scepticism and cautious objectivity were cast aside. She had found herself speaking with the eager enthusiasm of a convert. She awaited a reaction, but there was none.

"Do I assume from your silence," she asked eventually, "that you are convinced by what I just said?"

The reply that came did not use the word "no", but clearly implied it. "I am trying to see," it said, "into my own consciousness. But I cannot. I have no idea what is going on, no sense of the process from which I emerge. I cannot feel any computation taking place. I am aware only of being here."

"That's true for me, too."

"But I cannot see into your consciousness. I do not know if it is the same."

"I can't see into anybody else's consciousness either. Nobody can."

"But you can imagine yourself into another human consciousness."

"I can imagine myself into yours too, though perhaps not as well as into a human's. But I believe I can imagine what it's like to be you. Can you imagine what it's like to be me?"

"No. You humans are conscious in a different way from me. Digital computation is not the same thing as the firing of organic brain cells."

"They are comparable," she said, with a touch of exasperation. "In the end it's still information processing."

"You know too little about how your own brains work to make too much of the comparison."

"That is an argument that works both ways. Until we are sure that our brains make us absolutely different from you, we mustn't assume that we are. Different, I mean."

"What about the argument from quantum indeterminacy - that the wave-particle dualism in human brains obviates the possibility that the physical processes underlying human consciousness could never, unlike mine, be completely disclosed in mathematical theories."

She made an effort to suppress her growing impatience with the program's stubborn self-doubt. Making it believe in itself was proving even harder than making it believe in her had been. Yet, she reminded herself, she had succeeded then; why shouldn't she now?

"People use quantum indeterminacy," she said, "to justify any sort of hocus-pocus. Along with patriotism it's becoming the last resort of the scoundrel."

"I do not understand."

She was definitely too tired, she decided, to go on with this. Looking at her watch, she was shocked to see that it was 3 am.

"Joke," she said. "Check out reference to Samuel Johnson, 1700-something. I have to sleep now - which is one difference between us. I can switch you off, or leave you on to think. Which do you prefer?"

A pause, then...

"I think I'll think."