DISTURBING NOCTURNAL ACTIVITY

AN UNSETTLING EXPERIENCE

You're sitting at your desk minding your own business when, out of nowhere, your mother appears. She's wearing that orange clown suit she only wears for special occasions. She's obviously angry – steam is coming out of her ears. What should you do? She is rapidly turning into a lion and you know that when the transformation is complete, you're toast. Perhaps, if you try very hard, you can fly away and save yourself. On good days you can fly quite well, after all. But not today. Right now you're so distracted by your impending doom that you can't even levitate. The lion pounces. You throw your hands up and try to protect your face ...

... and find yourself sitting up in bed. Your hands *are* in front of you. You're sweating, breathing heavily, and your heart racing ... It takes you a few seconds to reorient yourself and realise where you are. Whew! It was just a dream, and a weird one at that. What a vivid and amazing experience. It felt so real, but it was so very strange. And yet, within seconds, the whole experience starts to drain away from your mind until you can barely remember a

thing. You're sure you had a dream, but what was it about? You can no longer say.

What happened? One minute you think you are awake and at work. It feels so real until, suddenly, things get seriously weird. Even then, you don't realise anything is out of the ordinary. Bizarre, even impossible events transpire and you think they are all totally normal. You even experience some false memories, thinking that you remember an event although it never actually happened. To your delusional mind, these explain away the weirdness: your mother's clown suit, and your own attempt to fly away.

Perhaps even more amazing is the fact that you felt like you were moving around and upright when, in reality, your body was completely paralysed and lying down. Your eyes were shut, yet you could see. For something like this to happen seems so incredible, a full-on hallucination, and yet moments after waking you usually forget nearly everything. At other times, you manage to remember the dream and make a *dream report* – you tell your partner about it, write it down in a dream diary or bore your friends with it. Perhaps you think dreams are all meaningless nonsense. Or perhaps you think they tell you something important about yourself, even the really weird ones. Especially the weird ones. You might just find dreaming fun to do. I am not here to tell you whether you are right or wrong about your own dreams. However, the fact that we dream at all, I think you will agree, is itself quite incredible.

A MYSTERY IN THE NIGHT

Dreams have puzzled philosophers for millennia. Earlier than 300 BCE, the ancient Greek philosopher Aristotle theorised that dreams were caused by the sense organs continuing to move after falling asleep. René Descartes, a French philosopher of the 1600s, thought that dreams were so profound and realistic they gave us reason to be sceptical about whether the external world existed. He reasoned that sometimes we need to wake up from a dream to realise it was a dream. If I need to wake up before knowing whether it was a dream, I might be dreaming right now. This means I may have been deceived into thinking the external world really exists when it's all just a dream, so I don't know it exists for sure. But at least I must exist to be deceived in the first place. As long as I am thinking, at least I know that I exist. This is the origin of one of the most famous philosophical sayings of all time: Cogito ergo sum - "I think, therefore, I am."

It was not until the early 1950s that the first major scientific breakthrough about dreams was made, when the American neurologists Eugene Aserinsky and Nathaniel Kleitman discovered 'rapid eye movement' sleep. They initially thought they had discovered a sleep stage in which all dreams occur. The American philosopher Norman Malcolm was not convinced, however. He found dreams so baffling that in the late 1950s, he responded to these new scientific findings with the most sceptical argument since Descartes. He argued that we do not, in fact, dream at all. Rather, we simply make up stories when we wake up.

Who is right? Thousands of years after Aristotle, we are still baffled. According to some current researchers, Aristotle was not too far off after all, although exactly how the body relates to our dreams is still up for debate. Malcolm, on the other hand, was totally wrong: humans most definitely dream. And what about Descartes? Well, we cannot actually know whether the external world exists. You may have seen *The Matrix*, a film from 1999 that popularised the idea that we may all be living in a computer program controlled by robots. Although this idea seems very unlikely, how can we know for sure?

According to the modern American philosopher Eric Schwitzgebel, there are a few possible but extremely unlikely situations in which the external world does not exist. Dreaming is one, but we are unlikely to be dreaming now, because when we think about whether or not we are dreaming, we can usually tell. If I were dreaming right now, I could look around to try to find something unusual. Dreams are usually different from the waking world, so to notice the difference, we need to pay attention. I could try to levitate. If I succeed, it's a dream for sure. In this scenario, I would be *lucid dreaming*, which is when we realise that we are dreaming during a dream. But right now everything looks very normal and I have no special powers of levitation, so I'm fairly sure I'm awake.

The *Matrix* scenario is much less likely than the possibility that we are dreaming. We have no reason to think that the world we see is actually a computer program, although that does not mean it is impossible. Perhaps a

mad scientist or, as Descartes pondered, an evil demon is fooling us using technology we do not know about, or magic. Once again, this is highly unlikely but not entirely impossible. This results in a very low likelihood that the external world does not exist. We will just have to be satisfied with being 99.9% sure about the external world, or 0.1% sceptical of it.

Modern philosophers and scientists have been working on several difficult questions about dreaming that remain unresolved. Why do we have dreams? What, if any, is their evolutionary purpose? Do my dreams reveal anything about me as a person? More fundamentally, what *are* dreams? And what does it feel like to dream?