Futures

Fear of the dark

The invisible enemy. By Stephen Battersby



ell, professor, what's all this nonsense about monsters in the darkness?"

"I assure you it's not nonsense, General."

"Alright then, convince me."

"As you know, sir, astronomers discovered long ago that the Universe contains a form of material that is radically different from normal matter."

"Something wrong with gravity, wasn't it?

"Yes, in a sense. Too much gravity, too much to be generated by normal matter alone. There has to be some other invisible material — which we call dark matter. We assumed it would consist of something simple. Perhaps an exotic type of particle, or a scattering of microscopic black holes created in the early moments of the Universe."

"So much for the ancient history. What's new?"

"Not long ago, we began to detect ... coagulations of the stuff. Much less dense

than a black hole but denser than any normal matter."

"Fascinating. Coagulations, you say."

"Coagulations. This showed us that dark matter is not just a simple, single particle. We realized there must be several different kinds of dark particle, as there are in normal matter. They are interacting through unfamiliar forces of nature, forces that have no effect on us, but that enable dark matter to form complex structures. It is a whole dark sector, in parallel to our own."

"Please get to the point."

"We have been examining some of the coagulations with the latest gravity detectors. And recently, on one of them, we found ... things. Things moving around."

"Things. Things, on coagulations. Well, I am certainly terrified now."

"The things are alive, sir."

"Right. That's the part I'm finding hard to swallow. Are you sure?"

"Quite sure. They move in ways that would

be impossible for inanimate matter. We have watched them hunt. Eat. Mate. Reproduce."

"Isee. Isee. And all this is going on invisibly, in parallel to our world? So some dark-matter things might be mating here, now?"

"Well ... in principle, yes, but they seem to be confined to a single coagulation. I'm pretty sure there are none right here."

"I'm glad to hear it. Even so, it is an unpleasant thought; it might be too much for citizens of a sensitive disposition. Just as well we'll be keeping it all secret. But what has any of this got to do with the army? I struggle to see any military threat from the sexual activity of dark-matter things."

"No sir, it's not that. They also have technology."

"What?"

"Technology, sir. It's not as sophisticated as ours, of course. Very primitive, in fact."

"If it's so primitive, what's the problem?"

"For one thing, the natural forces of the dark sector turn out to be disturbingly powerful.

Futures

They are vastly stronger than the forces at our disposal."

"But I thought you said these dark-matter forces can't affect us?"

"Not directly. But gravity bridges the divide. It affects both normal and dark matter. That's how we saw them in the first place, you remember. So perhaps by wielding their powerful alien forces, the creatures might be able to build gravitational weapons. Weapons that could kill us. For example, they might create black holes in inconvenient places."

"Inconvenient ... yes, I see. But are they even aware of us?"

"Iregret to say, yes. They recently developed quite effective gravimeters of their own, and they noticed one of our drones at work. There was a rather sickening flurry of activity. It followed the drone's retreat for some distance."

"Oh dear. I assume that the operative responsible has been dealt with?"

"Of course."

"Good. But really, do we need to take any action now? This all hangs on a chain of speculation — that these creatures can develop weapons, that they want to, that they will become a serious threat. Yet you tell me that they are confined to a single, um, coagulation?"

"Yes, sir."

"So our own realm is many orders of magnitude larger than theirs?"

"Yes. But they are beginning to spread. A few of the creatures already live in orbit around their homeworld. The time to eradicate an infestation is as soon as you detect it, not after it has become an epidemic. We cannot know their mindset, so it's sensible to assume hostility."

"Still, the risk seems small."

"Very small, sir. But not zero. And when you weigh our great civilization against their tiny, isolated and clearly inferior form of life ... well, I think it's an easy choice."

"What would you suggest, then?"

"We could deploy the one weapon that we know can strike at dark matter. It would only take a small one. Much smaller even than one of the minor appendages of these creatures. That would be enough to obliterate them all."

"You are talking about a black hole?"

"Yes. If you have any qualms, I can reassure you that it will be a quick end. Even the few individuals that live in orbit will be almost instantly destroyed by a blast of radiation."

"I see. Well, it will be easy enough to assemble a small black hole on site, and it won't make a dent in the budget. It just seems a little ... unsporting. Apart from anything else, we have the weight advantage, don't we?"

"Yes, sir; there is five times as much normal matter as dark matter. Which I think bolsters our case for survival."

"Needs must, I suppose. I'll call the sappers."
"Thank you, sir. And my department has begun a thorough search of the Galaxy for any more of these things. We will soon make sure that the darkness is clean."

Stephen Battersby is a science writer and editor based in the River Thames.