In Numbers

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I dream that I'm floating in the void between the stars. Untethered. No ship in sight. Suitless, naked to the vacuum. I search frantically for the sun, as if merely knowing its direction coul save me, but I'm spinning much to fast to find my bearings, and each time I catch a glimpse of what might be the home star, I lose sight of it again, before I can be sure.

"Last night"--as day nineteen came to a close with Callaghan's condition unchanged the orders arrived from Earth, officially canceling

the mission.

We shut down the drive for six hours while we rotated Cyclops one hundred and eighty degrees. Now we are decelerating at 1.3 geesas fast as we can, within safety parameters--but we'll still be traveling away from the solar system for fourteen and a half more days before we even come to a halt, and then it will take as long again just to get back to the point where deceleration began. I have no right to be even mildly surprised by thisto shed the velocity gained over nineteen days' ship time at 1 gee requires 14.6 days at 1.3; any intelligent child could do the calculation but some Earth-bound, commonsensical part of my mind still can't quite accept a twenty-nine-day U-turn.

Callaghan is facing away from the door as I enter the infirmary, but a glance at his EEG tells me he's awake. I call out in what I hope is a calm, reassuring voice, "Andrew? It's only me. How are you feeling today?" The words are picked up by the microphone in the helmet of my quarantine suit, pumped out by the external speaker, bounced off the gleaming, tiled walls, then fed back to me through my headsetcreating the unsettling illusion that my skull is several meters wide, and hollow.

He turns at the sound, emits a series of angry grunts, and makes a show of trying to break free of his restraints, but after a short while he goes limp, and just glares at me resentfully.

I stand by the foot of the bed, suddenly feeling drained, lethargic, hopeless. Or maybe just heavy; the extra weight is going to take a while to get used to. Twenty-four more kilograms, distributed uniformly, isn't exactly crippling, but even the slightest movement now requires a conscious effort.

"How are you?"

I'm convinced by now that he can't understand a word I say, but I'd still rather make a fool of myself than deal with a living, conscious patient in silence. There's no evidence that the sound of my voice is even any comfort to him, but I'm damned if I'm going to treat him like a cadaver.

"Is the gravity getting you down?"

Three days ago, Andrew Callaghan would have winced at the lame pun, and then lectured me on my sloppy terminology: "Kindly remember, 'Doctor' Dreyfusand I use the title looselythat the Principle of Equivalence does not grant ye license to refer to the inertial force ye are experiencing as 'gravity.' " In that glorious, over-the-top Scottish accent that he put on when he was being jokingly pompous, in place of his usual pan-European amalgam. His father was Irish, his mother Scottish, but he grew up in Switzerland; three days ago, he spoke five languages. Now, my words mean no more to him than his grunts mean to me.

I close my eyes and fight down a wave of panic. Earth is still forty-six days away. In forty-six days, this could happen to all of us. I want to lean over and shake him, force him to confess that he's acting, that it's all a monstrous practical joke. I actually believed that, for the first few hours (in retrospect, a feat of wishful thinking verging on the psychoticnobody indulges in practical jokes on board an experimental spacecraft). I thought everyone was in on it: make the doctor shit himself, and then laugh about it for the rest of the flight. I would have happily laughed along with them. But when I searched their faces for ill-concealed conspiratorial glee, all I found was the same sickening realization: This could happen to all of us. This could happen to me.

No diagnostic instrument can find the least thing wrong with Callaghan, and the hundreds of experts back on Earth who've seen the data can agree on only one thing: so far, there is no direct evidence of any toxin, any infection, any lesion, or any neurochemical deficit or excess. His brain activity has certainly changed, diminishing in specific regions in a manner entirely consistent with his diminished behavioral repertoire, but there is no sign of neurological damage to explain this loss of function.

This proves nothing; there are conditions that cannot be diagnosed until autopsy, even on Earth. And since Callaghan's medical historypersonal and ancestral, physical and mentalis, or was, spotless, if some trace neurotoxin has contaminated the food, or some mutant virus is drifting through the ship's

air, there is no reason to believe that he was uniquely vulnerable. It must be assumed that we are all at risk.

For all the high-powered technology at my disposal, I'd give anything for a simple, verbal report from the patient himself. He's a long way from being comatose; there must be something going through his mind. Although that begs the question: going through whose mind? Does Andrew Callaghan still exist? At what level of impairment does he lose his identity? And who lies in this bed, then? An unnamed stranger, without a past or a future? The nadve vocabulary of personality fails; the painful fact is that the human brain is capable of states that can't be categorized in such cozy terminology. Sometimes I think the only way to stay sanewhen confronted with malfunctions of consciousness that betray, so starkly, its physical nature is by adopting a variation on solipsism: other people may be nothing but biochemical robots, run by slabs of interconnected neurons . . . but me, I'm not like that at all; I'm real. Via the control plate fixed to his depilated skull, I anesthetize and selectively paralyze him, then I wheel him into the scanning room. I'm still hoping that evidence of a virus is going to turn up; if not the nucleic acid itself, maybe some tell-tale foreign protein. However limited the practical usefulness of such a discovery, it would be a great psychological victory to finally know what it is we're fighting.

I lock the bed into place inside the NMR cavity, hit a few keys, and the computer takes over. The scan will last nearly an hour, there's noth ing to do but sit and wait.

Perhaps the hypothetical virus is causing the production of an altered form of one of the neurotransmitters, too close to the real thing for this crude heap of coils to tell the difference, but sufficiently deformed to be unable to bind properly to its receptor? It's possible, I supposeas pos sible as any of my Other wild guesses. No doubt the experts back home have already thought of it and dismissed it. The world's best neuroscientists are all busily debating the Callaghan case, and when they manage to agree upon a hypothesis, I'm sure we'll be told without delay (apart from the unavoidable one: twelve hours now, and growing longer). My expertise is in space medicine; my specialties are radiation sickness, andamusingly enoughthe effects of insufficient gravity. Why should I expect to come up with the answer myself? Just because I'm here in the flesh? Just because my own life may depend on it?

There's a buzzing in my headset. I hit a button on my belt to accept the call.

"Yeah?"

"It's Jenny. I'm in the maser room. Can you come and take a look at Greta, please."

"Why? What is it?"

She hesitates long enough to make a reply unnecessary.

This is it. It's spreading.

I flick off my communicator. For a moment I simply feel numb, but then the ludicrous nature of the situation fills me with a bitter rage. Eight immaculately healthy people, on a milk run of a test flight to an arbitrary point in interstellar space; what are the odds of finding yourself in the middle of a fucking epidemic?

I'm on the verge of letting go and screaming out a string of angry obscenities, but I catch myself. What did I honestly expect? That quarantining Callaghan after he showed symptoms would be enough to contain the disease? I can't fall to pieces every time a miracle fails to take place.

I switch the communicator back on; the channel is still open. "I'm on my way."

"You're going to feel nauseous, but that should be the only side-effect; if you experience any other problems, let me know at once."

They all nod earnestly. Thomas asks, "How nauseous is nauseous? Throwing up?"

"I hope not. The digestive tract isn't physically affected, although you may feel like it is."

He grins. "Well, that's okay, then."

DDC-XV, a mixture of anti-viral agents, is no guarantee of anything; it's capable of disabling perhaps 40 per cent of known viruses, and slowing down another 10 percent. Since whatever is on board can only be a mutant of something we brought from Earth, the odds are really no different: one chance in two of any useful effect at all.

It's a strange sight: the crew lined up in front of me like nervous children trying to look brave while waiting to be inoculated. Although I've read all their files, although I know all their medical idiosyncrasies backward, they've never

really been my patients before. Until now, they've just been colleagues and friends, and the sudden shift in the relationship is disconcerting. I hate the way they're looking at me; as if I had some kind of power. As if it were me, and not the virus, they had to fear, or respect, or appease.

Captain Salih al-Qasbi is first to receive the jab. It's almost funny; since the team was assembled back on the moon, queues have always formed in the precise order of ascension to command: Lidia Garcia, navigator. Kayathiri Sangaralingam, drive specialist. Thomas Bwalya, life-support engineer. Jenny Riley, cyberneticist. (Greta Nordstrom, communications engineer. Andrew Callaghan, astronomer.) Then me, last and least, insurance against some unlikely emergencylike the escape pods, and about as much use.

"What else can we do?" asks Kay. "Shouldn't we be wearing quarantine suits?"

"It wouldn't be worth the discomfort. We've been breathing the same air as each other for nineteen days; we must all have the virus in our bodies by now." The notion of anyone engaging in physical intimacy on board Cyclops is ludicrous; there are video cameras in every corner of the ship, recording everything we do, twenty-four hours of every simulated day. For the virus to have passed from Callaghan to Nordstrom, it must be able to survive in air, so the chances are that we've all been infected.

Jenny frowns. "You keep talking about the virus. What if it isn't a virus? What if it's something else?"

"What else can it be? A contaminant in the food doesn' make sense any morea toxin doesn't just appear by magic, there'd lave to be a fungus or bacterium making it, and Thomas and I have both done dozens of tests, and turned up nothing."

Salih says, "But no tests for a virus are positive, either All we have are negative results."

"Viruses are more elusive. It's a process of elimination; f it was anything else, we would have pinned it down by now." I decline to add that electron microscopy on brain tissue from a dead patient might settle the issue once and for all.

"But are you sure there is no other possibility, David?"

"If there is, I can't imagine what." I look around, a little rsentful, but trying not to let it show. "Can anyone?"

There's a long silence, then Lidia says, "This might sound far-fetched, and I know the symptoms are nothing like any recognize(form of radiation sickness, but . . ."

I shake my head vehemently. "Not only do the symptoas make no sense, but the monitors all show that we're getting no more of any kind of radiation than we'd be receiving on Earth. The shielding is working perfectly, against spillage from the drive, against cosmic ray ... nothing is getting through."

"What about something we can't measure? Something that would pass right through the shields? Neutrinos, or some other weakl: interacting particle? No humans have been out this far before, only robot probes, and none with detectors that could pick up neutrinos."

"Neutrinos are harmless. We'd be hit with more neutrinos back on Earth, from the sun, than we would be out here. And if it' some other kind of radiation, where's it coming from? What's kept it ou of the solar system? What's kept it off the Earth's surfaceour shielding is just as effective as an entire planetary atmosphere. And if it scarely interacts with matter, how can it possibly cause brain damage?"

She nods agreement, but looks away with an air of frusration, as if I'd somehow missed the point. I'm puzzled; she's ten times he physicist I am, she should have thought of every objection I raised before she even spoke.

Jenny says, "What about the air filters. Wasn't there a Mars flight in the '50's"

Thomas is indignant. "The air filters are clean!"

"The air filters are clean," I agree, "and in any case, I wouldn't be able to miss a bacterial infection."

Thomas says, "That Mars flight was a passenger liner wth some guy on board who'd caught Legionnella Six back on Earth. The ship's life-support system had nothing to do with it. Why don't you get your facts straight before you open your mouth?"

The discussion takes us nowhere, and Salih soon breaks it up and sends us back to our posts.

I check my patients via the infirmary's video cameras. The robot or derly is trying to feed Nordstrom, and with infinite dumb patience offers her spoonful

after spoonful of mush that she spits back onto i ceramic arm. Callaghan was the same at first, and I thought I'd have to put him on a drip, but after less than a day he gave in.

I review the recent data stream from Earth, but there's been no progress. The French and Australian delegates to the latest teleconference on the "Cyclops Syndrome" both claim to have brilliant new theoriesbut are refusing to divulge them until the question of patent rights on any potential spin-offs has been settled. I know enough technodiplomacyspeak to realize that they have no "theories"; it's their convoluted way of restating their protest at having had no citizens included in the crew. I slump against the desk, wondering: When the ship full of corpses is recovered, will each government jealously claim the body of their own nation's crew member? Will they race each other to the dissecting tables for the honor of being first to announce the cause of death?

This first manned test of the Cyclops designto an unspectacular patch of vacuum a mere five light-days from Earthwas trumpeted as the miracle of international cooperation, in an era of increasing tension on every other front. The truth is, it's been abused all along, treated as the conduit for a thousand petty diplomatic paybacks. Well, better that than waralthough now, with the mission a failure, what kind of safety valve will it be? The newest weaponsnanomachines, molecular "robots" the size of a viruscarry no risk of fall-out or nuclear winter, and have a respect for property that puts the neutron bomb to shame. Already, governments around the world are painting their enemies as "less than human." I stare at the newscasts in disbelief, and think: After all those

decades it took to get rid of the fucking bomb, it's happening again. Genocide is becoming thinkable again.

There's a knock on the door. It's Lidia.

"David? Can I talk to you?"

"Sure."

She sits, with an involuntary sigh of bliss at the pleasure of taking the weight off her feet.

"What I said back there . ," she waves her hands dismissively, ". .you're right, of course; radiation makes no sensebut that wasn't really what I was getting at."

"Then what?"

"The point is, nobody has ever been this far out before." I can't help a

puzzled scowl, and she quickly adds, "What difference should that make? I don't know. Of course I don't know! Twenty thousand people spent fifteen years planning this missionI don't expect to be able to outguess them in a couple of hours. Some exotic form of radiation was Hie only tangible thing I could think of, off the top of my head, but the real point is that we just don't know what's out here."

I'm about to make a sarcastic remark about ethereal alien lifeforms, slipping through the hull and feeding on our brains, but I stop myself in time. If Lidia is becoming mildly paranoid, the worst thing I can do is mock her. I say, reasonably, "We know as much about what's out here as people ever knew about interplanetary space. More. Probes have been leaving the solar system for a hundred and fifty years. The interstellar medium has been sampled all the way to Alpha Centauri. There are no surprises, there's nothing strange out here. And even if there were . . . what astrophysical phenomenon could possibly explain what's happened to Callaghan and Nordstrom?"

"I've told you, I don't know. All I'm suggesting is that you keep an open mind." She hesitates, frowning, clearly embarrassed by the vagueness of her argument, but nevertheless unwilling to abandon it. "Humans spent millions of years evolving on the Earth's surface, adapting to a very specific set of environments. We think we're aware of all the restrictions that places on us, but we can't be sure. I mean, suppose they'd sent people into orbit before they'd discovered the Van Allen radiation belts. Or suppose they'd sent a free-fall expedition to Saturn, before any research had been done on the effects of long-term weightlessness." I start to protest, but she cuts me off. "I know, that sounds ludicrous, but only because both those problems were obvious in advance. That doesn't mean it always has to be that way. Isn't it possible that we've come across something that couldn't be anticipated, something utterly new?"

I say, begrudgingly, "I know what you're getting at. People have been acting for a hundred years like they knew all the problems of interstellar flight, and that once we came up with the technical solutions, those flights would be almost . . . trivial. The usual hubris. You're saying, perhaps there's something qualitatively different about interstellar space, something that all the unmanned probes couldn't detect, something that a century of planetary exploration couldn't prepare us for. Okay, it's an interesting theoretical point,

but where does it actually get us? Even if you're right, all it means is that we have no idea at all how to protect ourselves. Intellectual humility may be a virtue, but frankly, I'd rather be optimistic and keep on believing that it has to be a virus."

She looks away, again with that air of frustration, and I suddenly feel ashamed of my sensible, insipid response. "You should speak to Kay, not me. She's the particle physicist, the genius, the great theoretician. I'm just a second-rate doctor who failed Lateral Thinking 100. I can't radical scientific ideas; I'd be struck off the list for unprofessional con duct."

Lidia smiles ruefully. "I talked to Kay half an hour ago. She said I was full of crap." She shrugs. "She's probably right. And I hope that it is a virus, as much as you do. Keep looking for it, David. Forget every thing I've said. You have work to do, I shouldn't have distracted you."

The robot orderly feeds and cleans my robustly healthy idiot patients, the computerized scanner probes their bodies with magnetic fields and microwave pulses for the signature of a molecule that has no right to be thereand fails. I send all the data back to EarthNMR spectra, PET scans, EEGs, video recordingsalong with my own observations and speculations, for what they're worth. In return, Earth spews back a torrent of case studies from the literature; all make fascinating reading, but none come close to matching the pattern of symptomsand lack of symptomsof the Cyclops Syndrome.

Then come the signs that Earth is getting worried: an interminable series of messages from heads-of-state, each one full of the same emetic platitudes about their deep concern for our safety, their people's good wishes, and our own inspirational courage. Each one setting up the right credentials, carving out a share of the PR catharsis, just in case we don't make it back alive.

Worse are the broadcasts from our familiesscripted just as tightly, but delivered with less skill. I sit in my cabin and listen to my parents being forced to declare their love for me in the vocabulary of prime time human interest. After a few seconds, I turn down the sound. but the travesty is still too painful to watch. I close my eyes and press my fingers to the glass, shaking with anger.

I check everyone for symptoms of neurological deterioration. I analyze their visual tracking patterns, measure their reaction times, test their language and cognitive skills. Nobody's results betray the slightest signs of impairmentbut then, except for those tests that require the subject's understanding or

cooperation, the same can be said of Callaghan and Nordstrom.

For a few paranoid hours, I wonder if some spiteful government has infected us with a tailored virus, or perhaps even killer nanomachines. It's not unlikely, per se, but the details make no sense; surely a saboteur would have chosen to mimic a known disease, rather than risk arousing suspicion with a novel set of symptoms.

Unless, of course, the whole point was to arouse suspicion. to inflame tensions, to start the hunt for someone to blame. But that doesn't bear thinking about.

Salih asks me to ask each member of the crew to help in some way for the sake of morale. Jenny writes new software for the protein syn, I thesizer, in preparation for churning out artificial antibodies, should we actually find something to make antibodies against. Lidia and Kay check and recheck, calibrate and recalibrate, all the imaging and analytical equipment. I've already been showing Thomas every report and chart cranked out by the computer, in the hope that he'll identify some subtle clue that I've overlooked. Salih himself insists on feeding both Callaghan :aid Nordstrom for one meal a day, expressing the hope g that this human contact might make a difference to their conditiona gesture which I find touching, but also irritating, because it seems like an implied crit icism of the way I'm looking after them. Or perhaps I'm just hypersensitive.

Days pass without another victim, and I begin to feel less pessimistic.

Dramatic as the behavioral changes Callaghan and Nordstrom have suffered might be, the lack of detectable physical damage implies that, the virus is capable of infecting only a very specific class of neuronsand perhaps even that is contingent upon some genetic quirk that no other crew member happens to share.

Earth is still weeks away, though; the maser lag is still growing longer, and I can't suppress a sense of frustrationat times, verging on panicat the slowness of our return. It's not as if our homecoming held out the promise of a guaranteed, instant cure; perhaps it's more a wish to be rid of the burden of responsibility than fear of the virus itself.

And every night, I dream the same dream: that I'm spinning, alone, in the void, trying in vain to find the way home.

I'm shaken roughly from sleep, and it takes me several seconds to recall where I am. Squinting against the ceiling panels switched to daylight strength, I

- make out Thomas leaning over me.
- "Oh shit, shit, shit."
- He laughs drily. "Well, you're all right then."
- I stagger out of bed. "Who is it this time?"
- "Salih. Kay. Jenny."
- "Oh, no." I hesitate in the doorway. I want to fall apart, I want to climb back under the blankets and hide, I want to be home, but Thomas just stands there, puzzled, impatient, and I realize that I lack the courage to betray my weakness to him. I think, that's all that's kept me going: propping up my fears, one against the other.
- Salih is sitting on the floor in a corner of the dining room. He eyes me warily as I approach, but looks more lost and confused than aggressive. I want to say something to him before I fire the tranquilizer dartI feel I owe him some kind of apology or explanation but then I smother the absurd impulse and just do it.
- Jenny is in her cabin, hitting fistfuls of keys on her terminal, like an infant or a monkey pretending to type, peering at the screen with intense concentration. When she hears me, she turns and bellows angrily, then picks up a memory cartridge and throws it straight at my head. I duck. She scrambles under the bed. I lie on my stomach awkwardly, muscles still stiff from sleep. She screams at me. I fire.
- Kay is in bed, shivering and sobbing. Lidia sits beside her, murmuring comforting nonsense.
- "Kay?" I crouch near the foot of the bed. She ignores me. Lidia says dully, "I can't get her to speak. I've tried, David, but I can't." As if the whole phenomenon might simply be a failure on our part to trick or bully the victims back to normality.
- After we've moved the three new patients to the infirmary, and Lidia has broadcast a terse report to Earth, we sit in the dining room, drinking coffee, making plans for our own presumably inevitable decline.
- Lidia says, "The drive and navigation software will just keep on running. There are stages when human confirmation is requested, but if no input is received

within five minutes, the computer goes ahead as per the flight plan. Once we're close enough for remote reprogramming, ISUSAT will take over for the boarding rendezvous. Short of something

drastic and highly improbable, like a meteor through the fuel rings, we'll make it back."

Thomas says, "Ditto for life-support. After all the hours I've spent monitoring and fine-tuning, unless there's a massive equipment failureand there's no reason there should be whole system can take care of itself."

It's easier than I thought it would be,, to mimic their calm, pragmatic tones. "The orderly should be able to cope with feeding all eight of us, so long as we're properly restrained. The beds have an ultrasonic system to maintain peripheral circulation; we can expect a certain amount of muscle wastage, that's inevitable, but no pressure sores, no gaping ulcers.

The fecal and urinary disposal system has its own lubricant and disinfectant supplies; of course, nobody's ever been on one for weeks without human supervision, but so long as we're unable to get our hands free to break the seals, I can't see any problems."

Lidia says, "Well, then."

The newest patients are all still under the influence of the tranquilizer, and Callaghan and Nordstrom are mercifully asleep. I strap down Thomas and Lidia, then undress and slide into the surreal plastic contraption that will carry away my wastes. I've used something similar before, in a space suit when I was in training; it's not pleasant, but it's not that bad.

The orderly isn't programmed to manipulate the restraints, but with a long, tedious series of explicit voice commands, I manage to instruct it to strap me down.

For several minutes, we lie in silence, then Thomas clears his throat and says, "They'll find a cure. It might take a month, or a year, but they won't give up on us."

Sure. If we live for a month, or a year. If we live long enough even to reach Earth.

I keep my mouth shut.

- Lidia says, "What do you think it will be like?"
- Thomas says, "I don't know. Maybe like a dream. Maybe like being a helpless child again, a baby. Maybe like nothing at all."
- They talk for a while, and I listen in silence, a professional observer of The Patient's response to a stressful prognosis, and I feel a warm glow of satisfaction at the admirable way that they're handling their fearsbut I can't join in.
- A few hours later, Thomas succumbs. He screams with rage at finding himself bound, waking Callaghan and Nordstrom, who scream along with him.
- I say, "I can't stand this. I'm getting up."
- Lidia yells over the cacophony, "Don't be stupid! What do you think, you're immune? If you're roaming around the ship when it happens to you, you're going to hurt yourself, or damage something"
- I start telling the orderly how to release me. Lidia shouts her own instructions, and the thing swings back and forth wildly. I give up, suddenly realizing that the robot is incapable of righting itself; if it falls
- over, we're all dead.
- Eventually, the three of them shut up, presumably falling asleep; in the dim light, it's hard to be certain.
- Lidia says softly, "You've never told us, David. Who's waiting for you,
- back on Earth?"
- I laugh. "No one."
- "Come on."
- "It's the truth." I feel myself redden. It's none of her business; why should I have to explain myself to her? "I just, I don't have time. I prefer
- to be independent."
- "Everybody needs someone."
- "That sounds like a line from a bad song. And it happens not to be true. The

- truth is, I don't much like people." I wish I could drag my words back from out of the darkness. Then I think: what does it matter, now?
- There's an awkward silence, then she says, "So, what inspired you to become a doctor?"
- I laugh, with genuine mirth, because I've only just remembered. "Reading Camus' The Plague."
- There's no reply.
- Morning is a nightmare. The ceiling panels slowly brighten, and everyone wakes, screaming protests at the presence of so many strangers. I'm
- tempted again to have the orderly release me, but I fight down the impulse. Instead, I instruct it to administer sedation. Callaghan and Nordstrom are fitted with control plates, but the others have to be injected. As silence descends, my relief turns sour; I feel more lonely and frightened than ever.
- I have the orderly move the infirmary's terminal next to my bed, and with voice control I switch through the signal from Earth. They send to us constantly, they can always think of something to say. Weather reports for our home towns, snippets of news (but nothing too depressing), herds of primary school children around the world, praying to their various gods for our safe return. A response to Lidia's final report isn't due until tomorrow morning; I'm staring back into a cheerful past, when there were only two victims, and it looked like we had some hope.
- Around noon, I make a broadcast of my own. "This is Dreyfus," I say, redundantly. "Bwalya developed symptoms at 0200 hours, Garcia at 0300
- hours." I'm guessing the times, I have no real idea. And who the fuck
- cares? I switch off the camera. Trembling, I vomit onto the bed and the floor. The orderly cleans it up.
- I grow calm again as the hours pass, and a little more rational. I don't think about deathI can't see any point in doing sobut I can't help wondering how it will feel, finally to be like Callaghan and the others.
- Less than human? That might not be so bad. Feeling less, thinking less, might not be so bad at all.
- Night comes. Staring up at the faintly glowing ceiling, I wonder if I'll even

- notice when it happens to me. I consider talking aloud, describing my state of mind for the sake of whoever gets their hands on the infirmary's log, but introspection yields nothing worth reporting.
- I say, "Introspection yields nothing worth reporting."
- A few seconds latersuddenly unsure if I actually spoke, or merely formed the intentionI repeat myself.
- Shortly afterward, I suffer the same uncertainty again.
- Disembodied pain washes in and out of my shallow sleep for a long time. It's only when I start to attach it to specific parts of methis ache
- is from my shoulders, that cramp is from my right calfthat I begin to wake.
- When a throbbing that was an abstract notion alights deep inside my skull, I try to retreat back into sleep, but the pain is too great. I open
- my eyes and try to move, and then I remember.
- A tunnel of pain and fear, stretching back for what seems like eternity
- The width of the tunnel is the width of my shoulders, the width of the harness that holds me to the bed, but its depth is striated with light and darkness, with noise and confusion, with loneliness and the coldest misery.
- A dream of suffocation, infinitely prolonged.
- It takes me forever, ten minutes at least, to instruct the orderly to
- release me. I'm too weak to leave the bed, but I can move my arms, I can roll onto my stomach, I can start trying to rid myself of the nightmare
- burnt into my flesh.
- When I finally succeed in raising my head, I find the rest of the crew
- still strapped to their beds. Most have their eyes open, but are staring
- listlessly at the ceiling or the walls.
- I squint at my watch for the date, and then struggle with memory and
- arithmetic. Eighteen days. I feel a surge of elation. I may not have conquered

- the virusperhaps this is nothing but a temporary remissionbut
- every extension of the time scale on which the disease is operating brings
- us closer to home, and the chance of a cure.
- I switch on the broadcast from Earth. They're playing a loop at us that says little more than: "Cyclops, please respond." I make a brief report, then sag back onto the bed, all my strength drained.
- Later, I have the orderly fetch me a wheelchair, and I check each of my patients. I remove all their harnesses; nobody is in any condition to leap from their bed and assault me. Greta has somehow managed to half-turn onto her side, pinning her right arm, and she whimpers horribly as I free her. The skin of her forearm is soft and gray. I anesthetize her and inspect it. A few more days, and nothing would have saved her from amputation. I pump her full of antibiotics and tissue-repair nanomachines; she'll need a graft, eventually, but for now all I can do is hold the necrosis in check.
- It finally occurs to me to worry about Cyclops itself, but the drive computer's error log is empty of all but the most trivial complaints, and the navigation system reports that we are holding precisely to the flight plan.
- Where are we? Still further from home than we were when the mission
- was canceled, but at least now we're headed in the right direction.
- The flight plan is a blue trace on the screen of the terminal, a plot of
- distance versus time. The U-turn is an upside-down parabolaminutely distorted by relativistic effects, but not enough for the eye to tell. The blue line itself is pure theory, but at regular intervals along the curve are small green crosses, marking estimates of our actual location computed by the navigation system. It's the most natural thing in the world for the eye to leap across the curve and read off the time at which Cyclops was last at the same position as it is right now.
- That was eighteen days ago. The day I succumbed.
- I feel an almost physical shock, even before I consciously make the connection: Lidia may have been right. Perhaps there is something out here. I look around, in vain, for someone to argue me back to my senses.
- It could easily be a coincidence. One isolated piece of data means nothing. I

set the computer to work at once, analyzing the records of every instrument inside and outside the hull of Cyclops, searching for some evidence that the region of space from which we are now emerging is in any way distinctive.

The task is trivial, the answer is produced with no perceptible delay. Apart from a steady and predictable decline in the faint remnants of the solar windnothing. And so far as the instruments inside the shielded hull are concerned, we might have spent the last three weeks standing still, on the surface of a planet with gravity of 1.3 gees.

I'd be willing to believe that interstellar space might hold some dangerous surpriseI'd admit the possibility of some peril inexplicable in terms of current astrophysics, maybe even current physics itselfbut to believe in a phenomenon that has absolutely no effect on any one of the hundreds of delicate instruments we're carrying, and yet can somehow cause a subtle dysfunction of the human nervous system, would be anthropocentric to the point of insanity.

I go back over the infirmary's log, and find the moment when Lidia last spoke to me. I check the flight plan; in ten hours' time, we'll pass through the same location.

The orderly starts feeding the patients, but I interrupt it and take over myself. Eighteen days of confinement has knocked the aggression out of all of them. The docility with which they accept the food makes the job easy, but it shakes me up. Half a day ago, I was just like this. There goes the vanity that supposedly keeps me sane; my brain is the same machine as everyone else's, my precious intellect can be switched off, and switched on again, by nothing more profound than the stages in a virus's life cycle.

It's still too soon for a response from Earth to my message. I leave the infirmary and move around the ship in my wheelchair. Everything is as we left it, of course. I'm still horribly weak and aching all over, from being bedridden for so long, but the gravity as such no longer seems oppressive. The cabins all look so familiar, so mundane, that the idea that we are, even now, further from Earth than anyone has ever been before, seems preposterous.

As the ceiling panels slowly dim in their mimickry of dusk, I can't help myself; I sit by Lidia's bed and wait for the magic time, certain as I am that nothing is going to happen. She's asleep, but makes small, unhappy noises every now and then.

The coincidence of the onset and departure of my symptoms keeps nagging at

me, but there's no getting around it; the precision, the spec ificity, of the effect screams out the word adaptation. The only cause that makes sense is one that can be traced back to the Earth's biosphere. Lidia cries out. I check my watch; the time has passed. I pat her hand and start to wheel myself away. She opens her eyes, and suddenly burst s into tears, sobbing and shaking. I pause, momentarily unable to move or speak. She turns her head and sees me.

Her voice is slurred, but her words are unmistakable. "David? Are we home?"

I lean over and hold her in my arms.

I wouldn't call it a theory yet; we have no mechanism, no clear hypothesis. Kay speculates that some kind of quantum correlation effect may be involved; every human being contains thousands of genes that are, ultimately, copied from the same common ancestors, and like the polarized photons of the Einstein-Podolsky-Rosen experiment, there may be some indelible link established by this history of microscopic intimacy. There are at least two problems with this; the EPR effect is supposedly incapable of communicating anything but random quantum noise; and in any case, it ought not to diminish at all with distance. Kay is undaunted. "Any theory that predicts an effect that works at infinity is nonsense," she says. "In flat, empty spacetime, maybe, but not in the real universe. And just because you can pronounce the word 'random,' don't kid yourself that you know what it means."

What's special, about being ten billion kilometers from Earth, as opposed to ten thousand or ten million'? Distance, that's all. We didn't just evolve on a planetary surface, with air and water and gravity. We evolved in the presence of each other. It seems that the refinement of human consciousness made use of that fact. Relied on that fact.

The media releases back on Earth have mentioned none of this; mission control is keeping quiet about the rantings of eight people who have been through an ordeal. The mystery disease has mysteriously spared us, and no doubt we will be quarantined while the experts diligently hunt for the non-existent virus. The truth, though, won't stay buried for long.

Will genocide still be thinkable, in a world where every human being relies for their humanity on every other'?

I hope not.