

THE INFINITE ASSASSIN

By Greg Egan

One thing never changes: when some mutant junkie on S starts shuffling reality, it's always me they send into the whirlpool to put things right.

Why? They tell me I'm stable. Reliable. Dependable. After each debriefing, The Company's psychologists (complete strangers, every time) shake their heads in astonishment at their printouts, and tell me that I'm exactly the same person as when 'I' went in.

The number of parallel worlds is uncountably infinite — infinite like the real numbers, not merely like the integers — making it difficult to quantify these things without elaborate mathematical definitions, but roughly speaking, it seems that I'm unusually invariant: more alike from world to world than most people are. How alike? In how many worlds? Enough to be useful. Enough to do the job.

How The Company knew this, how they found me, I've never been told. I was recruited at the age of nineteen. Bribed. Trained. Brainwashed, I suppose. Sometimes I wonder if my stability has anything to do with me; maybe the real constant is the way I've been prepared. Maybe an infinite number of different people, put through the same process, would all emerge the same. Have all emerged the same. I don't know.

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Detectors scattered across the planet have sensed the faint beginnings of the whirlpool, and pinned down the centre to within a few kilometres, but that's the most accurate fix I can expect by this means. Each version of The Company shares its technology freely with the others, to ensure a uniformly optimal response, but even in the best of all possible worlds, the detectors are too large, and too delicate, to carry in closer for a more precise reading.

A helicopter deposits me on wasteland at the southern edge of the Leightown ghetto. I've never been here before, but the boarded-up shopfronts and grey tower blocks ahead are utterly familiar. Every large city in the world (in every world I know) has a place like this, created by a policy that's usually referred to as differential enforcement. Using or possessing S is strictly illegal, and the penalty in most countries is (mostly) summary execution, but the powers that be would rather have the users concentrated in designated areas than risk having them scattered amongst the community at large. So, if you're caught with S in a nice clean suburb, they'll blow a hole in your skull on the spot, but here, there's no chance of that. Here, there are no cops at all.

I head north. It's just after four a.m., but savagely hot, and once I move out of the buffer zone, the streets are crowded. People are coming and going from nightclubs, liquor stores, pawn shops, gambling houses, brothels. Power for street lighting has been cut off from this part of the city, but someone civic-minded has replaced the normal bulbs with self-contained tritium/phosphor globes, spilling a cool, pale light like radioactive milk. There's a popular misconception that most S users do nothing but dream, twenty-four hours a day, but that's ludicrous; not only

do they need to eat, drink and earn money like everyone else, but few would waste the drug on the time when their alter egos are themselves asleep.

Intelligence says there's some kind of whirlpool cult in Leightown, who may try to interfere with my work. I've been warned of such groups before, but it's never come to anything; the slightest shift in reality is usually all it takes to make such an aberration vanish. The Company, the ghettos, are the stable responses to S; everything else seems to be highly conditional. Still, I shouldn't be complacent. Even if these cults can have no significant impact on the mission as a whole, no doubt they have killed some versions of me in the past, and I don't want it to be my turn, this time. I know that an infinite number of versions of me would survive — some whose only difference from me would be that they had survived — so perhaps I ought to be entirely untroubled by the thought of death.

But I'm not.

Wardrobe have dressed me with scrupulous care, in a Fat Single Mothers Must Die World Tour souvenir reflection hologram T-shirt, the right style of jeans, the right model running shoes. Paradoxically, S users tend to be slavish adherents to 'local' fashion, as opposed to that of their dreams; perhaps it's a matter of wanting to partition their sleeping and waking lives. For now, I'm in perfect camouflage, but I don't expect that to last; as the whirlpool picks up speed, sweeping different parts of the ghetto into different histories, changes in style will be one of the most sensitive markers. If my clothes don't look out of place before too long, I'll know I'm headed in the wrong direction.

A tall, bald man with a shrunken human thumb dangling from one ear lobe collides with me as he runs out of a bar. As we separate, he turns on me, screaming taunts and obscenities. I respond cautiously; he may have friends in the crowd, and I don't have time to waste getting into that kind of trouble. I don't escalate things by replying, but I take care to appear confident, without seeming arrogant or disdainful. This balancing act pays off. Insulting me with impunity for thirty seconds apparently satisfies his pride, and he walks away smirking.

As I move on, though, I can't help wondering how many versions of me didn't get out of it so easily.

I pick up speed to compensate for the delay.

Someone catches up with me, and starts walking beside me. 'Hey, I liked the way you handled that. Subtle. Manipulative. Pragmatic. Full marks.' A woman in her late twenties, with short, metallic-blue hair.

'Fuck off. I'm not interested.'

'In what?'

'In anything.'

She shakes her head. 'Not true. You're new around here, and you're looking for something. Or someone. Maybe I can help.'

'I said, fuck off.'

She shrugs and falls behind, but calls after me, 'Every hunter needs a guide. Think about it.'

* * * *

A few blocks later, I turn into an unlit side street. Deserted, silent; stinking of half-burnt garbage, cheap insecticide, and piss. And I swear I can feel it: in the dark, ruined buildings all around me, people are dreaming on S.

S is not like any other drug. S dreams are neither surreal nor euphoric. Nor are they like simulator trips: empty fantasies, absurd fairy tales of limitless prosperity and indescribable bliss. They're dreams of lives that, literally, might have been lived by the dreamers, every bit as solid and plausible as their waking lives.

With one exception: if the dream life turns sour, the dreamer can abandon it at will, and choose another (without any need to dream of taking S . . . although that's been known to happen). He or she can piece together a second life, in which no mistakes are irrevocable, no decisions absolute. A life without failures, without dead ends. All possibilities remain forever accessible.

S grants dreamers the power to live vicariously in any parallel world in which they have an alter ego — someone with whom they share enough brain physiology to maintain the parasitic resonance of the link. Studies suggest that a perfect genetic match isn't necessary for this — but nor is it sufficient; early childhood development also seems to affect the neural structures involved.

For most users, the drug does no more than this. For one in a hundred thousand, though, dreams are only the beginning. During their third or fourth year on S, they start to move physically from world to world, as they strive to take the place of their chosen alter egos.

The trouble is, there's never anything so simple as an infinity of direct exchanges, between all the versions of the mutant user who've gained this power, and all the versions they wish to become. Such transitions are energetically unfavourable; in practice, each dreamer must move gradually, continuously, passing through all the intervening points. But those 'points' are occupied by other versions of themselves; it's like motion in a crowd — or a fluid. The dreamers must flow.

At first, those alter egos who've developed the skill are distributed too sparsely to have any effect at all. Later, it seems there's a kind of paralysis through symmetry; all potential flows are equally possible, including each one's exact opposite. Everything just cancels out.

The first few times the symmetry is broken, there's usually nothing but a brief shudder, a momentary slippage, an almost imperceptible world-quake. The detectors record these events, but are still too insensitive to localise them.

Eventually, some kind of critical threshold is crossed. Complex, sustained

flows develop: vast, tangled currents with the kind of pathological topologies that only an infinite-dimensional space can contain. Such flows are viscous; nearby points are dragged along. That's what creates the whirlpool; the closer you are to the mutant dreamer, the faster you're carried from world to world.

As more and more versions of the dreamer contribute to the flow, it picks up speed — and the faster it becomes, the further away its influence is felt.

The Company, of course, doesn't give a shit if reality is scrambled in the ghettos. My job is to keep the effects from spreading beyond.

I follow the side street to the top of a hill. There's another main road about four hundred metres ahead. I find a sheltered spot amongst the rubble of a half-demolished building, unfold a pair of binoculars, and spend five minutes watching the pedestrians below. Every ten or fifteen seconds, I notice a tiny mutation: an item of clothing changing; a person suddenly shifting position, or vanishing completely, or materialising from nowhere. The binoculars are smart; they count up the number of events which take place in their field of view, as well as computing the map coordinates of the point they're aimed at.

I turn one hundred and eighty degrees, and look back on the crowd that I passed through on my way here. The rate is substantially lower, but the same kind of thing is visible. Bystanders, of course, notice nothing; as yet, the whirlpool's gradients are so shallow that any two people within sight of each other on a crowded street would more or less shift universes together. Only at a distance can the changes be seen.

In fact, since I'm closer to the centre of the whirlpool than the people to the south of me, most of the changes I see in that direction are due to my own rate of shift. I've long ago left the world of my most recent employers behind — but I have no doubt that the vacancy has been, and will continue to be, filled.

I'm going to have to make a third observation to get a fix, some distance away from the north-south line joining the first two points. Over time, of course, the centre will drift, but not very rapidly; the flow runs between worlds where the centres are close together, so its position is the last thing to change.

I head down the hill, westwards.

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Amongst the crowds and lights again, waiting for a gap in the traffic, someone taps my elbow. I turn, to see the same blue-haired woman who accosted me before. I give her a stare of mild annoyance, but I keep my mouth shut; I don't know whether or not this version of her has met a version of me, and I don't want to contradict her expectations. By now, at least some of the locals must have noticed what's going on — just listening to an outside radio station, stuttering randomly from song to song, should be enough to give it away — but it's not in my interest to spread the news.

She says, 'I can help you find her.'

'Help me find who?'

'I know exactly where she is. There's no need to waste time on measurements and calc—'

'Shut up. Come with me.'

She follows me, uncomplaining, into a nearby alley. Maybe I'm being set up for an ambush. By the whirlpool cult? But the alley is deserted. When I'm sure we're alone, I push her against the wall and put a gun to her head. She doesn't call out, or resist; she's shaken, but I don't think she's surprised by this treatment. I scan her with a hand-held magnetic resonance imager; no weapons, no booby traps, no transmitters.

I say, 'Why don't you tell me what this is all about?' I'd swear that nobody could have seen me on the hill, but maybe she saw another version of me. It's not like me to screw up, but it does happen.

She closes her eyes for a moment, then says, almost calmly, 'I want to save you time, that's all. I know where the mutant is. I want to help you find her as quickly as possible.'

'Why?'

'Why? I have a business here, and I don't want to see it disrupted. Do you know how hard it is to build up contacts again, after a whirlpool's been through? What do you think — I'm covered by insurance?'

I don't believe a word of this, but I see no reason not to play along; it's probably the simplest way to deal with her, short of blowing her brains out. I put away the gun and take a map from my pocket. 'Show me.'

She points out a building about two kilometres north-east of where we are. 'Fifth floor. Apartment 522.'

'How do you know?'

'A friend of mine lives in the building. He noticed the effects just before midnight, and he got in touch with me.' She laughs nervously. 'Actually, I don't know the guy all that well . . . but I think the version who phoned me had something going on with another me.'

'Why didn't you just leave when you heard the news? Clear out to a safe distance?'

She shakes her head vehemently. 'Leaving is the worst thing to do; I'd end up even more out of touch. The outside world doesn't matter. Do you think I care if the government changes, or the pop stars have different names? This is my home. If Leightown shifts, I'm better off shifting with it. Or with part of it.'

'So how did you find me?'

She shrugs. 'I knew you'd be coming. Everybody knows that much. Of course, I didn't know what you'd look like — but I know this place pretty well, and I kept my eyes open for strangers. And it seems I got lucky.'

Lucky. Exactly. Some of my alter egos will be having versions of this conversation, but others won't be having any conversation at all. One more random delay.

I fold the map. 'Thanks for the information.'

She nods. 'Any time.'

As I'm walking away, she calls out, 'Every time.'

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I quicken my step for a while; other versions of me should be doing the same, compensating for however much time they've wasted. I can't expect to maintain perfect synch, but dispersion is insidious; if I didn't at least try to minimise it, I'd end up travelling to the centre by every conceivable route, and arriving over a period of days.

And although I can usually make up lost time, I can never entirely cancel out the effects of variable delays. Spending different amounts of time at different distances from the centre means that all the versions of me aren't shifted uniformly. There are theoretical models which show that under certain conditions, this could result in gaps; I could be squeezed into certain portions of the flow, and removed from others — a bit like halving all the numbers between 1 and 1, leaving a hole from 0.5 to 1 . . . squashing one infinity into another which is cardinally identical, but half the geometric size. No versions of me would have been destroyed, and I wouldn't even exist twice in the same world, but nevertheless, a gap would have been created.

As for heading straight for the building where my 'informant' claims the mutant is dreaming, I'm not tempted at all. Whether or not the information is genuine, I doubt very much that I've received the tip-off in any but an insignificant portion — technically, a set of measure zero — of the worlds caught up in the whirlpool. Any action taken only in such a sparse set of worlds would be totally ineffectual, in terms of disrupting the flow.

If I'm right, then of course it makes no difference what I do; if all the versions of me who received the tip-off simply marched out of the whirlpool, it would have no impact on the mission. A set of measure zero wouldn't be missed. But my actions, as an individual, are always irrelevant in that sense; if I, and I alone, deserted, the loss would be infinitesimal. The catch is, I could never know that I was acting alone.

And the truth is, versions of me probably have deserted; however stable my personality, it's hard to believe that there are no valid quantum permutations entailing such an action. Whatever the physically possible choices are, my alter egos have made — and will continue to make — every single one of them. My stability lies in the distribution, and the relative density, of all these branches — in the shape of a static, pre-ordained structure. Free will is a rationalisation; I can't help making all the right decisions. And all the wrong ones.

But I 'prefer' (granting meaning to the word) not to think this way too often. The only sane approach is to think of myself as one free agent of

many, and to 'strive' for coherence; to ignore short cuts, to stick to procedure, to 'do everything I can' to concentrate my presence.

As for worrying about those alter egos who desert, or fail, or die, there's a simple solution: I disown them. It's up to me to define my identity any way I like. I may be forced to accept my multiplicity, but the borders are mine to draw. 'I' am those who survive, and succeed. The rest are someone else.

I reach a suitable vantage point and take a third count. The view is starting to look like a half-hour video recording edited down to five minutes — except that the whole scene doesn't change at once; apart from some highly correlated couples, different people vanish and appear independently, suffering their own individual jump cuts. They're still all shifting universes more or less together, but what that means, in terms of where they happen to be physically located at any instant, is so complex that it might as well be random. A few people don't vanish at all; one man loiters consistently on the same street corner — although his haircut changes, radically, at least five times.

When the measurement is over, the computer inside the binoculars flashes up coordinates for the centre's estimated position. It's about sixty metres from the building the blue-haired woman pointed out; well within the margin of error. So perhaps she was telling the truth — but that changes nothing. I must still ignore her.

As I start towards my target, I wonder: Maybe I was ambushed back in that alley, after all. Maybe I was given the mutant's location as a deliberate attempt to distract me, to divide me. Maybe the woman tossed a coin to split the universe: heads for a tip-off, tails for none — or threw dice, and chose from a wider list of strategies.

It's only a theory . . . but it's a comforting idea: if that's the best the whirlpool cult can do to protect the object of their devotion, then I have nothing to fear from them at all.

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I avoid the major roads, but even on the side streets it's soon clear that the word is out. People run past me, some hysterical, some grim; some empty-handed, some toting possessions; one man dashes from door to door, hurling bricks through windows, waking the occupants, shouting the news. Not everyone's heading in the same direction; most are simply fleeing the ghetto, trying to escape the whirlpool, but others are no doubt frantically searching for their friends, their families, their lovers, in the hope of reaching them before they turn into strangers. I wish them well.

Except in the central disaster zone, a few hard-core dreamers will stay put. Shifting doesn't matter to them; they can reach their dream lives from anywhere — or so they think. Some may be in for a shock; the whirlpool can pass through worlds where there is no supply of S — where the mutant user has an alter ego who has never even heard of the drug.

As I turn into a long, straight avenue, the naked-eye view begins to take on the jump-cut appearance that the binoculars produced, just fifteen minutes ago. People flicker, shift, vanish. Nobody stays in sight for long;

few travel more than ten or twenty metres before disappearing. Many are flinching and stumbling as they run, balking at empty space as often as at real obstacles, all confidence in the permanence of the world around them, rightly, shattered. Some run blindly with their heads down and their arms outstretched. Most people are smart enough to travel on foot, but plenty of smashed and abandoned cars strobe in and out of existence on the roadway. I witness one car in motion, but only fleetingly.

I don't see myself any where about; I never have yet. Random scatter should put me in the same world twice, in some worlds — but only in a set of measure zero. Throw two idealised darts at a dartboard, and the probability of twice hitting the same point — the same zero-dimensional point — is zero. Repeat the experiment in an uncountably infinite number of worlds, and it will happen — but only in a set of measure zero.

The changes are most frantic in the distance, and the blur of activity retreats to some extent as I move — due as it is, in part, to mere separation — but I'm also heading into steeper gradients, so I am, slowly, gaining on the havoc. I keep to a measured pace, looking out for both sudden human obstacles and shifts in the terrain.

The pedestrians thin out. The street itself still endures, but the buildings around me are beginning to be transformed into bizarre chimeras, with mismatched segments from variant designs, and then from utterly different structures, appearing side by side. It's like Walking through some holographic architectural identikit machine on overdrive. Before long, most of these composites are collapsing, unbalanced by fatal disagreements on where loads should be borne. Falling rubble makes the footpath dangerous, so I weave my way between the car bodies in the middle of the road. There's virtually no moving traffic now, but it's slow work just navigating between all this 'stationary' scrap metal. Obstructions come and go; it's usually quicker to wait for them to vanish than to backtrack and look for another way through. Sometimes I'm hemmed in on all sides, but never for long.

Finally, most of the buildings around me seem to have toppled, in most worlds, and I find a path near the edge of the road that's relatively passable. Nearby, it looks like an earthquake has levelled the ghetto. Looking back, away from the whirlpool, there's nothing but a grey fog of generic buildings; out there, structures are still moving as one — or near enough to remain standing — but I'm shifting so much faster than they are that the skyline has smeared into an amorphous multiple exposure of a billion different possibilities.

A human figure, sliced open obliquely from skull to groin, materialises in front of me, topples, then vanishes. My guts squirm, but I press on. I know that the very same thing must be happening to versions of me — but I declare it, I define it, to be the death of strangers. The gradient is so high now that different parts of the body can be dragged into different worlds, where the complementary pieces of anatomy have no good statistical reason to be correctly aligned. The rate at which this fatal dissociation occurs, though, is inexplicably lower than calculations predict; the human body somehow defends its integrity, and shifts as a whole far more often than it should. The physical basis for this anomaly has yet to be pinned

down — but then, the physical basis for the human brain creating the delusion of a unique history, a sense of time, and a sense of identity, from the multifurcating branches and fans of superspace, has also proved to be elusive.

The sky grows light, a weird blue-grey that no single overcast sky ever possessed. The streets themselves are in a state of flux now; every second or third step is a revelation — bitumen, broken masonry, concrete, sand, all at slightly different levels — and briefly, a patch of withered grass. An inertial navigation implant in my skull guides me through the chaos. Clouds of dust and smoke come and go, and then—

A cluster of apartment blocks, with surface features flickering, but showing no signs of disintegrating. The rates of shift here are higher than ever, but there's a counterbalancing effect: the worlds between which the flow runs are required to be more and more alike, the closer you get to the dreamer.

The group of buildings is roughly symmetrical, and it's perfectly clear which one lies at the centre. None of me would fail to make the same judgement, so I won't need to go through absurd mental contortions to avoid acting on the tip-off.

The front entrance to the building oscillates, mainly between three alternatives. I choose the leftmost door; a matter of procedure, a standard which The Company managed to propagate between themselves before I was even recruited. (No doubt contradictory instructions circulated for a while, but one scheme must have dominated, eventually, because I've never been briefed any differently.) I often wish I could leave (and/or follow) a trail of some kind, but any mark I made would be useless, swept downstream faster than those it was meant to guide. I have no choice but to trust in procedure to minimise my dispersion.

From the foyer, I can see four stairwells — all with stairs converted into piles of flickering rubble. I step into the leftmost, and glance up; the early-morning light floods in through a variety of possible windows. The spacing between the great concrete slabs of the floors is holding constant; the energy difference between such large structures in different positions lends them more stability than all the possible, specific shapes of flights of stairs. Cracks must be developing, though, and given time, there's no doubt that even this building would succumb to its discrepancies — killing the dreamer, in world after world, and putting an end to the flow. But who knows how far the whirlpool might have spread by then?

The explosive devices I carry are small, but more than adequate. I set one down in the stairwell, speak the arming sequence, and run. I glance back across the foyer as I retreat, but at a distance, the details amongst the rubble are nothing but a blur. The bomb I've planted has been swept into another world, but it's a matter of faith — and experience — that there's an infinite line of others to take its place.

I collide with a wall where there used to be a door, step back, try again, pass through. Sprinting across the road, an abandoned car materialises in front of me; I skirt around it, drop behind it, cover my head.

Eighteen. Nineteen. Twenty. Twenty-one. Twenty-two?

Not a sound. I look up. The car has vanished. The building still stands — and still flickers.

I climb to my feet, dazed. Some bombs may have — must have — failed . . . but enough should have exploded to disrupt the flow.

So what's happened? Perhaps the dreamer has survived in some small, but contiguous, part of the flow, and it's closed off into a loop — which it's my bad luck to be a part of. Survived how? The worlds in which the bomb exploded should have been spread randomly, uniformly, everywhere dense enough to do the job . . . but perhaps some freak clustering effect has given rise to a gap.

Or maybe I've ended up squeezed out of part of the flow. The theoretical conditions for that have always struck me as far too bizarre to be fulfilled in real life . . . but what if it has happened? A gap in my presence, downstream from me, would have left a set of worlds with no bomb planted at all — which then flowed along and caught up with me, once I moved away from the building and my shift rate dropped.

I 'return' to the stairwell. There's no unexploded bomb, no sign that any version of me has been here. I plant the backup device, and run. This time, I find no shelter on the street, and I simply hit the ground.

Again, nothing.

I struggle to calm myself, to visualise the possibilities. If the gap without bombs hadn't fully passed the gap without me, when the first bombs went off, then I'd still have been missing from a part of the surviving flow — allowing exactly the same thing to happen all over again.

I stare at the intact building, disbelieving. I am the ones who succeed. That's all that defines me. But who, exactly, failed? If I was absent from part of the flow, there were no versions of me in those worlds to fail. Who takes the blame? Who do I disown? Those who successfully planted the bomb, but 'should have' done it in other worlds? Am I amongst them? I have no way of knowing.

So, what now? How big is the gap? How close am I to it? How many times can it defeat me?

I have to keep killing the dreamer, until I succeed.

I return to the stairwell. The floors are about three metres apart. To ascend, I use a small grappling hook on a short rope; the hook fires an explosive-driven spike into the concrete floor. Once the rope is uncoiled, its chances of ending up in separate pieces in different worlds is magnified; it's essential to move quickly.

I search the first storey systematically, following procedure to the letter, as if I'd never heard of Room 522. A blur of alternative dividing walls, ghostly spartan furniture, transient heaps of sad possessions. When I've finished, I pause until the clock in my skull reaches the next multiple of ten minutes.

It's an imperfect strategy — some stragglers will fall more than ten minutes behind — but that would be true however long I waited.

The second storey is deserted, too. But a little more stable; there's no doubt that I'm drawing closer to the heart of the whirlpool.

The third storey's architecture is almost solid. The fourth, if not for the abandoned ephemera flickering in the corners of rooms, could pass for normal.

The fifth—

I kick the doors open, one by one, moving steadily down the corridor. 502. 504. 506. I thought I might be tempted to break ranks when I came this close, but instead I find it easier than ever to go through the motions, knowing that I'll have no opportunity to regroup. 516. 518. 520.

At the far end of Room 522, there's a young woman stretched out on a bed. Her hair is a diaphanous halo of possibilities, her clothing a translucent haze, but her body looks solid and permanent, the almost-fixed point about which all the night's chaos has spun.

I step into the room, take aim at her skull, and fire. The bullet shifts worlds before it can reach her, but it will kill another version, downstream. I fire again and again, waiting for a bullet from a brother assassin to strike home before my eyes — or for the flow to stop, for the living dreamers to become too few, too sparse, to maintain it.

Neither happens.

'You took your time.'

I swing around. The blue-haired woman stands outside the doorway. I reload the gun; she makes no move to stop me. My hands are shaking. I turn back to the dreamer and kill her, another two dozen times. The version before me remains untouched, the flow undiminished.

I reload again, and wave the gun at the blue-haired woman. 'What the fuck have you done to me? Am I alone? Have you slaughtered all the others?' But that's absurd — and if it were true, how could she see me? I'd be a momentary, imperceptible flicker to each separate version of her, nothing more; she wouldn't even know I was there.

She shakes her head, and says mildly, 'We've slaughtered no one. We've mapped you into Cantor dust, that's all. Every one of you is still alive — but none of you can stop the whirlpool.'

Cantor dust. A fractal set, uncountably infinite, but with measure zero. There's not one gap in my presence; there's an infinite number, an endless series of ever-smaller holes, everywhere. But—

'How? You set me up, you kept me talking, but how could you coordinate the delays? And calculate the effects? It would take . . .'

'Infinite computational power? An infinite number of people?' She smiles faintly. 'I am an infinite number of people. All sleepwalking on S. All

dreaming each other. We can act together, in synch, as one — or we can act independently. Or something in between, as now: the versions of me who can see and hear you at any moment are sharing their sense data with the rest of me.'

I turn back to the dreamer. 'Why defend her? She'll never get what she wants. She's tearing the city apart, and she'll never even reach her destination.'

'Not here, perhaps.'

'Not here? She's crossing all the worlds she lives in! Where else is there?'

The woman shakes her head. 'What creates those worlds? Alternative possibilities for ordinary physical processes. But it doesn't stop there; the possibility of motion between worlds has exactly the same effect. Superspace itself branches out into different versions, versions containing all possible cross-world flows. And there can be higher-level flows, between those versions of superspace, so the whole structure branches again. And so on.'

I close my eyes, drowning in vertigo. If this endless ascent into greater infinities is true—

'Somewhere, the dreamer always triumphs? Whatever I do?'

'Yes.'

'And somewhere, I always win? Somewhere, you've failed to defeat me?'

'Yes.'

Who am I? I'm the ones who succeed. Then who am I? I'm nothing at all. A set of measure zero.

I drop the gun and take three steps towards the dreamer. My clothes, already tattered, part worlds and fall away.

I take another step, and then halt, shocked by a sudden warmth. My hair, and outer layers of skin, have vanished; I'm covered with a fine sweat of blood. I notice, for the first time, the frozen smile on the dreamer's face.

And I wonder: in how many infinite sets of worlds will I take one more step? And how many countless versions of me will turn around instead, and walk out of this room? Who exactly am I saving from shame, when I'll live and die in every possible way?

Myself.