

## SEVEN AND THE STARS

Sometimes it's best to settle for part of the truth. When you're at a cocktail party and some stranger asks what you do for a living, you don't come right out and say "I'm a science fiction writer." Sometimes it's better to say "I'm a novelist," or "I'm a freelance writer," or even "I'm between jobs right now." Because you can get the damndest responses.

Now, I'm not bothered by the philistines who mumble something about "that Buck Rogers stuff" and wander vaguely away. Nor even the people who have a terrific story idea and will split fifty-fifty, if you'll do the writing. (I always tell them I'm dead-lined and give them my ex-agent's phone number.) What bothers me is some of the nuts you meet, if they're unpleasant ones, and the people who think that you yourself must be a nut.

People find out you write science fiction and they automatically think you share their belief in flying saucers, yetis, the Loch Ness monster, the Tooth Fairy, anything. Most of the sf writers I know don't even believe in NASA.

Still, you can't stay away from cocktail parties. If a writer refuses a free drink, they find out about it and take away his Guild membership.

So I was at this West Village cocktail party, having canapes for dinner, when an elegant woman in fifty-dollar jeans came up and asked me the Question. You can't lie to fifty-dollar jeans. There's something sincere about that kind of excess.

"Oh," she said, "you must be interested in UFOs."

Here I have to admit to some incipient sexism, or at least an optimistic mating instinct. If she'd been a man, I would've rolled my eyes ceilingward and said something disparaging. And life would be simpler now. As it was, I put on a serious expression and said only that I didn't think there was enough evidence to come to a conclusion.

She dimpled gloriously and said she thought she had evidence. My instincts should have told me that screwballs come in all shapes and sizes. But I was attracted to her, and she didn't seem too loony, and in the back of my mind was the idea that there might be a story here—not science fiction, but the cheap kind of breathless exploitation that fuels the weekly tabloids. I'd never stooped that low before. But the rent was due and I actually was at that party for the canapes.

"What sort of evidence?" I asked. "I've never seen a photograph, or anything, that I thought was very convincing."

"It's . . . hard to describe. You might think I was crazy or something."

"Not at all. That's not an accusation a science fiction writer would make lightly. Six impossible things before breakfast, you know."

"If you really are interested, I'd rather show you. Come to my place after the party?"

No, I'd rather be poked in the eye with something sharp. I told her I'd be ready to leave whenever she was. She circulated for a while and I finished my dinner.

I should have smelled a rat. One minute of conversation and she wants me to come spend

the evening. It was not for my lean and hairy personage.

We walked to an underground lot and picked up her car, a well-restored old Jaguar sedan. On the drive out to Westchester I learned that she was an analyst for a municipal-fund outfit. So I was able to check her out—a couple of years ago I had some Hollywood money and put it into municipals—and found that she was very sharp. About her "evidence," though, she offered nothing. I didn't ask, of course.

Her name was Lydia Martell. She lived in North Tarrytown, in an upper-middle-class stucco house overlooking the Hudson and the train. I expressed surprise that she had such a large place; she said she'd been married once.

The first thing I noticed, inside, was a strong citrus odor, like those sachets little old ladies bring back from Florida. Other than that, the house was severely modern, unrelentingly tasteful. When Lydia went off to make coffee, I did some discreet snooping. Most of the wall hangings were numbered-and-signed contemporary prints, though pride of place went to a spare drawing by Picasso, an original nude. If she was a nut, she was the richest one I'd ever met.

She returned with a tray, two cups of coffee, and a metal tube. "Exhibit A," she said.

The tube was very peculiar-looking. It was the kind of silvery blue you might associate with outdoors equipment: pack frames and ski poles of anodized aluminum. But it seemed to glow, and it was too heavy to be aluminum. Much too heavy. I hefted it in the palm of my hand.

"Right," she said. "If that were made of solid gold it would weigh less."

"It's impressive." I peered through it; it was just an empty tube of thin metal. "What's the story?"

"Exhibit B." She took the tube from me and stood it on its end, on the coffee table. "Come on out, Seven."

A voice came from the tube. "You found one." Behind me, I heard a door click open. I turned—and saw one of those six impossible things you're supposed to believe before breakfast.

He, or she, or it was about eight feet tall and scrawny. It had the right number of legs and arms and eyes. No mouth to speak of, or with. Another blue tube swung on a chain around its neck, and it walked slowly, with the aid of two staffs. It was scaly blue and smelled like an orange grove in heat.

"Uh," I said.

"He is a scientist?" the tube said.

"Not exactly," Lydia said. "A science fiction writer."

"Please explain."

"They're people who tell stories about the future, usually in terms of science."

"We have those on my world," it said. "We keep them in a special place. Away from the young."

"Well, there weren't any scientists at the party. The biologist didn't show up. If you'd let

me go to the university—"

"No, not yet. One at a time. Do you, science fiction writer, know much about science?"

"I—I read the magazines," I said. "You're . . . from another planet? Another dimension?"

"Yes, both. Perhaps he will do."

My brain was sitting there with the clutch in. The only mundane explanation I could come up with was that this was some elaborate joke involving psychedelics. I'd been turning down LSD for twenty years; now I wished I'd tried it once, for a data base. Everything else seemed so real.

"Lydia, this isn't some kind of a hoax? Like a Muppet, or—"

"Seven, shake hands with him."

The creature clumped over, transferred both staffs to its left hand, and offered its right. It was rough and dry and hotter than a fevered child's skin. "I am real," it said. "At least as real as you are."

Then it sat down, a painfully slow operation accompanied by alarming noises. Sitting on the floor, it was almost at eye level. And too close.

"Please explain in a way he can understand, Lydia."

"Seven is marooned here. He's . . . well, something like a tourist. His ship's drive broke down, and Earth was the nearest place where he could survive and maybe get help. He orbited for a few weeks, monitoring our broadcasts, and then landed here."

"Reluctantly," Seven said. "I'm not really sure you can help me. From your programs it seems likely you will harm me."

"But those are just entertainments," I started to protest. "Nobody—"

"Exactly. Fiction is truth is fiction."

I took a sip of coffee and was surprised that the cup didn't rattle; I didn't spill any of it. That would happen in fiction. "How did you wind up here? Why did you choose Lydia?"

"My garage door was open," she said.

"That seems like an awful chance. If we're so dangerous."

"As individuals, you aren't dangerous to me. Examine your own feelings. Aren't you surprised not to be a little afraid?" I thought that was due to my science-fictional objectivity.

"No, I don't have control over your mind, and I can't 'read' it. You trust me because you can sense my intentions directly. It's not a well-developed talent in humans, though, and I doubt that it would work in a crowd, or over television. It's in groups that you are dangerous."

I'd noticed that myself. "You flew a flying saucer through Westchester and parked it in her garage?"

"No lights," Seven said. "Four in the morning."

"It's not a flying saucer," Lydia added. "It's a big black sphere, like a huge bowling ball."

"And it's broken down," I said. "You can orbit Earth, slip down, and tuck it into someone's garage, but you can't go from star to star. Is that it?"

"He could go to other stars," Lydia said, "but it would take a long time."

"I could reach the star nearest here in about twelve years. But it would take nearly a

hundred centuries for me to get home that way. Most of my friends would be dead."

"It's like if you drove to California," Lydia said, "and your car broke down there and you only had first gear. You could drive back to New York, but it makes more sense to look for a mechanic."

"But there are not mechanics in this part of California," Seven said. "I have to find some intelligent—what was that word?"

"Blacksmith."

"—blacksmith, and see whether he can fix it under my guidance. But I'm not a mechanic either. I know a little about the basic principles involved, but that's all." He rested his chin on one bony knee. "I'm not even sure how to take it apart safely."

"What's its power source?"

"Simple fusion of hydrogen atoms."

"That could be dangerous, all right."

"No, that's not what bothers me. It's the part that makes distances smaller. You're not supposed to use that near a planet."

"Makes distances smaller?"

"Yes. If you used it near a planet, it would make part of the planet very small. I think the rest of it would come apart, stretching."

"How does it work?"

"It makes distances smaller, so you don't have to travel as long."

I rubbed my eyes. When I opened them he was still there. "I understand that part. What I mean is, do you know how it makes distances smaller?"

"The process?"

"That's right."

"This is why I need a scientist." He daintily took a sugar cube from the bowl on the tray and rubbed it between his palms. It disappeared. "All I know is that you tell the ship where you want to go, and it tells you how long it will take. You can stay awake or sleep. When you are ready, it goes."

"You must know some scientists," Lydia said.

"Yeah. A magician, too."

"I don't want many people to know I'm here. Not until I can leave quickly."

I had to admit that made sense. "Why don't you do this," Lydia said. "Pretend it's for a story.... Ask some scientists whether there's some rationale for a drive like this thing you made up. You must do that sort of thing all the time."

"Yeah." Like the physicist who told me my antigravity device violated the laws of conservation of energy, momentum, and natural resources. Sort of condescending. "Worth a try, I guess."

"I could show you the vehicle," Seven said. Now that did sound interesting. I helped him to his feet, and Lydia took us around to the back door of the garage.

It really wasn't too helpful. The spaceship looked like a prop for a low-budget TV movie.

A featureless flat black sphere about eight feet in diameter. Seven said something to it and it clam-shelled open. It looked pretty low-rent inside, too. Just a comfy-looking settee in a small round room wallpapered with shabby red satin. There were three gray boxes under the settee that he identified as the fusion drive, the "shrinker," and a life-support center. He didn't know how to get the boxes open.

I couldn't really fault him for that. I've been riding the subway all my life, but if one stopped dead I wouldn't have the faintest idea of how to get it started again.

That analogy stuck in my mind as I rattled home in the last train back to the city. Suppose the subway broke down and when I got out there was no one around but a bunch of Stone Age savages. Or even colonial Americans, say. *Well, it's run by an electrical motor. You know—electricity? Ben Franklin?*

Maybe somewhere in the city there was someone fiddling with the equivalent of Leyden jars and kites and keys. Even if I could find him, could we turn him into a metaphorical subway repairman?

The next morning I called Lydia and she confirmed that it hadn't been a dream, hallucination, or joke. So I took a jigger's worth out of my own private life-support center and splashed my way through the freezing rain to the public library.

There's a section there that has all the publications of the New York Academy of Sciences. I scanned titles and skimmed a few articles, looking for people who had an interest in exotic propulsion systems. I discarded a few names as being too prominent, figuring they'd have had too much experience with screwballs. By afternoon I had three names to call. One turned out to be on sabbatical, one was openly contemptuous, and one was Lazlo Crane.

Dr. Crane is an assistant professor in the aerospace engineering department of NYU. He had written a paper with a new angle on using black holes for interstellar flight. I couldn't even understand the one-paragraph summary, but the title was clear enough. His office wasn't too far, and I was out of phone change, so I slogged on over.

He looked sort of like a Lazlo. Tall and skinny, with a wisp of beard; prematurely bald, squinting through thick glasses. He was working on a crossword puzzle, standing up with the newspaper folded on top of a filing cabinet. Like Thomas Wolfe used to do, writing, though Wolfe was beefier and not quite Lazlo's seven feet.

"What's a five-letter word meaning 'sanctuary'?" he asked without looking up. "The middle letter's a *k*, I'm sure of it."

"Sekos," I said, and spelled it.

"Fits." He scribbled it in, using a pencil. Amateur. "Do I know you?" He peered at me over his glasses.

I introduced myself and he gave the rare response: "The science fiction writer?"

I replied modestly in the affirmative. He shook hands and said, "Used to read your stuff," without elaborating. Too busy, I supposed, what with all the space drives and crossword puzzles.

He sat down and nodded in the direction of the only other chair. "Can I do something for you?"

"I read your paper in the last Academy Proceedings. I thought maybe you could help me with a problem."

"A science problem? I thought you stayed away from that. Sort of made it up as you went along."

Pleasant fellow. "Trying to clean up my act," I said, and outlined what I knew of Seven's drive. It didn't take long, of course.

He pulled on his lower lip a couple of times and rubbed his beard out of shape. "Why do you need an explanation? Why not just say there's this black box that makes distances shorter?"

Gray box.. "That would be kind of absurd, wouldn't it?"

"Not really." He shrugged, a quick spasm. "Like the way you handled time travel in *Time and the Chinaman*—"

*"Time and/or the Chinaman."*

"Whatever. You just presented it as an established fact. If they actually had this distance-shrinker, they wouldn't stand around talking about it. They'd just use it, wouldn't they?"

"Well, that's one way to handle it. A good way, usually, if you do it convincingly. But even if I don't actually describe it in detail, I'd like to know how it works, what it looks like."

"A black box, probably." He leaned back and thought for a minute. "There is an angle. You know how to make artificial gravity?"

"Sure, you spin the thing around—"

"No, that's not gravity. It's just imposing a rotating frame of reference. If you drop something it doesn't fall in a straight line. It doesn't even drop, really. It only seems to."

"Okay." I think.

"The only way we know how to make artificial gravity is to put a mass under the thing. You put a scale on a table and put something on it that weighs a pound. Roll a ten-ton lead weight under the table, and it weighs a tiny fraction of an ounce more."

"That's not really artificial gravity, though," I said. "That's natural, organic gravity."

"Semantics. Don't think of that block of lead in Newtonian terms—more mass, therefore a greater attractive force. Don't think in terms of force at all. Think of it as a device that changes the shape of space." He stood up quickly. "Let's go to the undergraduate lab."

I followed him through the door and down the hall. "You know about the rubber sheet model?"

"I've seen pictures."

"We have one here. Here." He pushed open a door and we went into a large room full of long tables cluttered with electronic gear. In one corner was a round table a couple of yards in diameter, a taut rubber sheet nailed to a wooden frame with a wooden lip around it. Lazio reached into a jar and took out a marble-sized ball bearing and rolled it across the sheet.

"Straight lines, see?" The ball bearing bounced from the opposite side and came back. Lazio picked it up. "Now we put a planet in there, or a sun." He filled his hand with a metal sphere about half the size of a bowling ball and set it in the center of the sheet, turning it into a kind of elastic bowl.

"We use this thing to demonstrate different kinds of orbits." He rolled the ball bearing out and it dipped down in a graceful curve, came out banking to the left, rolled back in, and began looping around in a series of ellipses. He scooped up a handful of the ball bearings and rolled them in at various angles and speeds. "See there, there, that one's almost a circle, like the earth's orbit."

"Kind of a miniature solar system," I said.

"Except that it runs down. Friction with the air and the rubber surface."

It was a hypnotic sight. We watched them whispering around for a minute.

"Now the important thing is that these things are still moving in a kind of straight line, though it doesn't look like it from our point of view."

"Path of least resistance?" I said.

"Something like that. The path they follow is called a geodesic. How much it deviates from a simple straight line, obviously, depends on how massive the central object is and how far it is from the orbiting object."

"The closer they get, the faster they roll," I said. "Then they go out again and slow down."

"Right. Now what we're actually talking about, at any given moment, is the angle the rubber sheet makes, from the horizontal, at the spot right under the ball bearing. The greater the angle is, the more the ball's influenced."

"Sure." Pretty sure, anyhow.

"That angle corresponds to what in four-dimensional space-time we call the gravitational gradient."

"If you say so."

"Come on, now, it's not that hard. You read the black hole paper, didn't you?"

Moment of truth. "Look. Dr. Crane, twenty years ago I flunked calculus and switched to English. The part of your paper that was in English, I read."

He twisted his beard. "Not much, eh?"

"Enough to see that you might have what I want. Go ahead. The gravitational gradient."

"Well, what's interesting in terms of your space drive is what happens to the gravitational gradient very close to a tremendously massive, very small object. Like a black hole."

He pulled the weight out of the middle of the sheet and the ball bearings sort of relaxed, rolling off and clicking against the sides of the table and each other.

"Now look." He pushed his finger down into the sheet and one ball bearing, the closest, rolled into the dimple he made. None of the others was affected. "If you think about the push being the same, here, but the scale much reduced—the ball is smaller than a BB and my finger is narrower than a hypodermic needle—you can see you're approaching a condition where the sides of the gravity well, the rubber sheet, are almost vertical. As it

approaches the point of the needle, the BB falls faster and faster."

"But not for long."

"That's the point. It's like rolling the lead weight under the scale. I think I have a way to fool space-time. Make it seem as if there were a small black hole just a tiny distance away, constantly retreating in the direction you want to go. It's only the *gradient* that makes a difference, not the overall situation." He poked the rubber sheet again. "See? The other ball bearings don't even know I'm here. The gradient becomes infinitesimal, out where they are."

"Suppose it were a spaceship-sized thing. Wouldn't the gee forces get intolerable?"

"Not a bit. You're in free fall, just like orbiting a planet. Zero gravity, to the people aboard the spaceship."

"You couldn't go any faster than the speed of light, though," I said. "It doesn't get by relativity."

He picked up a ball bearing and stared at it, frowning. "I'd have to say no." He tossed it onto the sheet and it bounced over the lip to rattle across the floor. "Certainly within the context of my paper, I didn't say anything about exceeding the speed of light. I did want to get it published."

"You saw a catch to it?"

"There's a paradox . . . having to do with the allowable range of initial conditions. I'm waiting to see whether anybody notices it." He gestured at the rubber sheet. "If you were to interpret the paradox in terms of this model, well, it would be like changing the elasticity of the rubber, at the point where the BB is. Or being able to reach up from the other side of the sheet and twist it out of shape.

"The net result, looking at it one way, is that it goes faster than the speed of light. Another way to look at it, which is no more comfortable, is that . . . well, it shrinks space. Like your black box, it makes distances shorter. You accelerate for a certain period—falling, so to speak—and then reverse the process, decelerating, and you wind up having gone much farther than you seem to have gone. Much farther than you should be able to go, on the energy expended."

That was enough for me. "Would you be willing to explain this to some friends of mine—other people who are helping me with this thing?"

He shook his head. "I don't want any publicity:"

"Nothing like that. They aren't even writers. We'd just get together for dinner and chat."

The word "dinner" provoked some interest. Science fiction writers and junior professors have something in common. "They aren't a bunch of nuts, now?"

"One of them is pretty weird—but levelheaded." Flat on top, actually. "You might get a kick out of him. He's even taller than you are."

"That would be novel. Okay, go ahead and set it up. I'm free most nights."

I called Lydia from his phone and set it up for that evening, then went off to my local check-bouncing service to get enough for our train fares.



I don't recall now what I actually expected in the way of a reaction, when Lazlo Crane confronted Seven. He was remarkably subdued.

Lydia had charmed him with herself and with a magnificent dinner of duck *a l'orange*, the cooking of which masked Seven's citric effluvium. After dessert she took out the blue tube and for the first time mentioned the reason for Crane's presence.

"Lazlo, there's someone we'd like you to talk to. About the paper you wrote."

To Seven's credit, he went around the long way, so as not to sneak up from behind. As he walked across the great room to where we were sitting, I watched Lazlo carefully. He didn't freak or faint or even go bug-eyed or stammer. Both eyebrows went up a bit, true, and he blinked. Then he looked at the blue tube and at me. "It's not really a story, then," he said.

"No. It's all true."

He nodded. "I didn't think you wrote that sort of thing."

They talked for a couple of hours, Lazlo questioning Seven closely about the range of his machine, duration of voyages, the sensations he felt, and so forth. Seven showed some fantastic pictures of the places he'd been, like home movies but with three dimensions and smell.

Then Lydia and I opened the garage door and checked to make sure the coast was clear, and the two of them took off for a joyride in the black machine, which was silent and nearly invisible. They came back ninety minutes later, having been around the moon.

When we asked whether he could fix it, Lazlo said he wasn't sure. "It's not so much like a blacksmith trying to fix a car. More like an auto mechanic trying to repair an atom bomb, having read a couple of popular science articles. We need sort of a back-yard Manhattan Project: people, secrecy, money, influence ..."

"You get the people," Lydia said. "Leave the rest to me."

"Wait," I said. "What about safety? I thought Seven said that thing could pull a planet apart."

"Maybe it could," Lazlo admitted. "That's why we'll be doing the blacksmith part on the moon."

Lydia had quite a bit of money, but not enough to swing a project of this magnitude. That's how *Seven and the Stars* was born.

Seven had home movies of 115 alien worlds. If we set up his projector inside a room with white walls and a white floor, it was just like absolute reality. All I had to do was go into the room with a gas mask and a good half-inch color tape machine, and we had instant documentary. Seven rambled on about the places into a tape recorder, and I rewrote his monologue into a sort of cross between National Geographic specials and the venerable *Mork & Mindy*—tongue-in-cheek science fiction, with special effects that no one in the industry could match.

We paid union dues for a platoon of nonexistent animators and special-effects people, made a package of thirteen shows, and showed them to all five networks. The bidding was

furious. CBS won, and they ran *Seven and the Stars* right after *Ninety Minutes* Sunday evening—and within four weeks we were outdrawing our lead-in, our commercials getting the highest prices in the industry.

We were a real mystery. Our corporation owned an ex-dude ranch in Nevada, with security to match the sophistication of our supposed special effects. That was where Lazlo and his gang were, of course, when they weren't riding Seven's bowling ball to the moon.

Seven himself was a slight problem. He had a great natural delivery for my lines, but he got sophisticated, started mugging for laughs. I had to tone him down. There's nothing very funny about a cross between Jack Benny and a gila monster.

In a way, it's a race against time. We've done not quite half of Seven's worlds: when we run out, the series is over. But it looks as if we are going to make it. Lazlo's people have gotten to the point where they can open the gray box and poke around with the whatzis inside. I keep looking up into the sky to see if the moon's still there.

I'll hate to see it end. Right now I have the reputation of having produced the most imaginative science fiction ever—from the Thought-Eaters of Prrn to the Sensuous Siblings of Sirius VI—and sooner or later the whole world will know that it wasn't fiction at all.

So I'll have to return all the Hugos and Nebulas and stumble back into obscurity, with nothing to comfort me but a brilliant and beautiful wife—and the largest residuals in the history of television. Nobody ever said a writer's life was easy.

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