# Interference

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“Take it easy, now,” warned the President of the United States. “A lot depends on you—don’t go off half-cocked. You only get one chance. That’s all we can afford.”

Boyle took the extended hand and shook it heartily. “We’ll certainly do our best, sir,” he said. And from the tone of his voice you could tell that he meant it.

The vast field was crowded; beneath the hot summer sun sweated twenty thousand people, surging, cheering, breaking through cordons of police lined up for their own protection. Dips were doing a thriving business; more than one light-fingered gentleman was planning to retire on the rich pickings from the crowd. People were far too excited to consider whether or not it was their own hands in their pockets or that of some total stranger of predatory instincts. The crowd was in a holiday mood, exalted to be in the same rocket field with Boyle and Cantrell.

The two objects of adoration were bearing up well under the strain, humble psychologists though they had been up to a few weeks ago. After shaking the President’s hand and being clapped on their backs by enough distinguished foreigners to fill an embassy the size of the great pyramid, they were blushing a little and very happy at their good fortune.

“But,” whispered Boyle from the corner of his mouth, “if we don’t come back they’ll know we died trying.” Suddenly grim, he surveyed the vast sea of faces stretching before him. An emcee took him by the arm and led him to a mike through which he would address the crowd.

“Hello—” he began, and then broke off, startled by the sound of his own voice roaring out across the field. “Hello, all you people. My partner and I just want to thank you before we leave in the Andros. If we don’t return send out more men, men better than Cantrell and I. Because we aren’t coming back before we crack the problem that’s assigned to us. When—if—you see the jets of the old Andros in the sky again, maybe in a week, maybe in a year, you’ll know that the answer is in our hands and that the plague, the spastitis, is over. Or as good as over.”

The roar that went up from the crowd was deafening as he modestly stepped back from the mike. The emcee was yelling things into it, but the tremendous ovation drowned out even the tornado of sound that the loudspeakers created.

Boyle waved at the crowd again. “All ready?” he snapped at Cantrell, his partner in the enterprise. “Everything checked?”

“Betcha life,” said Cantrell. “Get in.” Like an insect disappearing in the knothole of a giant tree trunk, Boyle eased through the tiny port in the grey, slab-sided hull of the Andros. Cantrell vaulted in immediately after him, and the huge plug of metal that sealed the ship swung into place from the inside.

The crowd had quieted, and the annunciators roared warnings to stand back from the breath of the fiery Titan that soon would roar its own message. Police cleared the mob away from the firing area with squad cars driving masses of people before them. Hastily the reviewing stand was rolled away from the ship.

The President got into his car, a long, low open Jefferson 22. He looked a little ill. “I hope they make it,” he said, with a visible effort. “They’re plucky young—” Then he could no longer contain himself. He began to cough violently, his hands trembling toward his mouth.

Doctors clustered around as he collapsed. Even in unconsciousness his body twitched grotesquely and his finely modeled hands trembled as if with cold. “He’s got it,” said one surgeon grimly. “The President has spastitis. It’s spreading faster than we thought. And there go the dream-boys who have to get out into space to find a cure.” He gestured at the Andros, which was ponderously aiming itself at the zenith with its own self-elevators.

With a mind-staggering crash the ship took off. The wind of its departure almost tore clothes from the surgeons at the Presidential car. Long after it had vanished—seemingly dead into the sun—their ears rang with the concussion, and breezes stiffly whipped along the field.

Cantrell grinned feebly from the bunk. “I’m all right,” he said weakly. “I can get up. This damned space-sickness gets me every time. You ready to try out the polyphone?”

The hardy Boyle grinned back through a tangle of electronics supplies. “It’s all rigged up and ready for you. Catch.” He tossed over a set of headphones connected with the machinery and donned a similar set of his own. “Relax,” he warned. “If we’re not far enough out this ought to be a full-blooded shock to mind and body.” He switched on a dull-glowing tube.

Cantrell squinted his eyes shut and concentrated on the familiar thought patterns of his partner. He caught them for a moment. Boyle was thinking of the blackness of space through which they were speeding and wondering vaguely whether the meteor interceptor would work as well under stress as it had in the tests. He held up a hand with thumb and forefinger meeting, both crooked, in the time-honored technicians’ gesture of: coming over 100%.

Then there was a sudden rip in the smoothly unreeling pattern. It was as though a panorama were being opened before his eyes; the panorama of his partner’s mind. Then a seam opened suddenly and without warning. He was reading the minds of total strangers, people he’d never heard of.

In rapid sequence he caught the image of a grubby little room as seen by a short man, and then surges of physical disgust at the sight—through this short stranger’s eyes—of a big, muscular woman. Following that image and impression was a vision of staring dead into the sun, some fool who was looking for their ship, no doubt. Back to the grubby room, but this time seen from the slightly higher elevation of the muscular woman, who obviously didn’t like the little man she focused on any more than he liked her.

For a full hour Cantrell tried to claw his way back to the mind stream of the man who was raptly sitting a few feet from him, but the obtrusive thoughts of people back on Earth insisted on popping up. For a full hour Cantrell plumbed the depths of degradation in some minds, read the noble and exalted thoughts of others. He tuned in on one murder and two suicides, seen in dizzy angles by the different participants in the violence done.

Through them all was a continual undertone of abominable worry and expectancy of death. Cantrell grunted softly whenever that image emerged. He recognized it easily; that was what he and Boyle were out there in space to fight. It was the ever-present dread of being struck down by the plague raging on Earth—the shakes, spastitis malignans, whatever you wanted to call it.

Cantrell saw people drop in the street, only to begin to tremble horribly at the hands and feet with the disease. Finally he tore the headset off in disgust. Boyle looked at him mildly.

“You try it solo,” said Cantrell. “I can’t get a damned thing out of the ether except the pressure-waves from Tellus. And they aren’t pretty.”

Boyle removed his own set carefully. “It’s eavesdropping,” he said. “I tried to get you every second. What were you doing?”

“Just what you were,” grunted his partner. “Just exactly. I was trying to get you, but you weren’t to be had. We have to move on, Boyle. Do what you can with the accelerators.”

Boyle went to the instrument panel, worked the multiplex of levers. Too near the Earth! Too near to the suffering stew of human beings in agony, never knowing who would be next with the shakes. That was what they had to get away from—the emotional jags and lunatic vibrations from the home planet.

He and Cantrell had been carefully teamed as psychological mates for the full utilization of the polyphone. Essentially the machine was intended to heighten to the nth degree the rapport of a pair like this one. But they were too sensitive for the machine. There was interference from the thousands who passed in the street, from everybody all over the globe who was thinking consecutively at the time.

And because the shakes was a disease of psychological degeneration, you had to fight it by probing into a mind and finding what was wrong. It didn’t have to be a diseased mind, for every normal mind has in its depths the seeds of every psychological affliction that breaks out in wilder form. In Boyle’s well-ordered brain were minute traces of megalomania, satyriasis, schizophrenia, all the words ending in philia and phobia as well as other unpleasant matters. Everybody has them, whether he knows it or not.

The idea had been to shoot these two out into space, far from the influence and interference of Earth; then they would work deeper and deeper into each other’s minds, finally to discover the seeds of the shakes that were inevitably lying dormant.

One of the pleasant features of psychiatry is that once you have your problem broken down it is already solved. The synthetic element of logic is superfluous; analysis is sufficient. It might be that the shakes consisted of a fear of technical progress reaching epidemic proportions through hysterical contagion. You see a man fall in the street feebly kicking his heels in protest at being deprived of the liberty to roam on grassy fields and your own elements of protest are somewhat stirred. Then one day you feel despondent and they explode when your censor band is not on guard against subversive urges like that. And for the rest of your life you are a spastic, kicking and squirming uncontrollably. Or until someone calmly explains to you what is wrong—about the machine age and the rest. Then you are miraculously cured. And one cure breeds a thousand as confidence grows.

Meanwhile there was the matter of interference from Earth. Boyle pushed the fuel rod down to the limits of the outward-bound trip. Dammit, they’d have to get away from the static, he brooded.

“What’s our position?” queried Boyle. He was relaxing, Cantrell at the driving panel.

“Practically ideal,” said his partner. “I haven’t checked, but we should be well out of the range of anything from Earth. Going high and fancy, we are—per second acceleration for two weeks. That’s plenty far. Do you want to try out the polyphone again?”

“Blow off the dust,” grunted Boyle, swinging himself from the bunk. Gravity on the ship was at Earth level; that had meant tons of extra equipment and power consumption far above normal, but these two on whom the fate of their planet depended could not be distracted by space sickness and flying soup.

Cantrell readied the polyphone, testing and checking the scores of minute connections and solders that held the complex creation together. Some he tightened, others he ripped out and replaced. At length the psychologist reported: “All ready. Let’s make this tryout a good one.”

“Right. You stay open and receptive; I’ll drive as deep into your mind as I can. And Cantrell—I know it’s not a nice thing to ask, but you’ll have to have complete confidence in me. I don’t want you to seal off any sections at all from me. I want you to stay as open as though you weren’t being probed. You’re a specialist; you could close off whatever you wanted to. But we don’t know where the spastitis seeds lie. It may be in some group-unconscious engram or some especially unsavory crime you’ve committed and forced yourself to forget. I’ll play square with you, Cantrell. For the sake of the whole planet back there—don’t keep any secret places.”

His partner stared at him curiously. “Okay,” he said at last. “You know best. But if you find anything especially nasty, do me the favor of not telling me about it.”

“Agreed,” said Boyle with relief. He switched on the machine as they donned the head sets. The great tube glowed.

Cantrell relaxed in body and mind as he felt the probing fingers sent from his partner’s brain pluck away at his grey matter. It wasn’t an unpleasant sensation, rather like a mental Swedish massage. Vaguely, images came through. He stiffened a little. There shouldn’t be any images here, and if there were he shouldn’t get them. For the moment putting aside the receptive mood, he reached out, shutting his eyes and wrinkling his brow in an effort to encompass the foreign thought vibrations that were filtering into his skull.

He saw a sky then through the eyes of some person on whose mind he had landed. The sky was curiously dusky. And with the vision of the sky was a poignant sense of longing that filled the mind of Cantrell’s host. The words of it seemed to be: “My loved one! My loved one—on their side. Now we are enemies…”

A quick start of alarm. The sky swiveled away, and Cantrell saw through these other eyes a group of horsemen bearing down on his host. A shrill scream of terror, an intolerable wave of revulsion and regret, and then the blankness of death. Cantrell’s host had been ridden under the hooves of the horsemen.

The psychologist, not believing what he had experienced, reached out with his mind and seized on one of the riders. He did know that there was a sense of guilt in the rider’s mind; what it meant he could not tell. He heard a conversation begun with a shrill, nervous laugh. Then: “Damned rebel—we showed him.”

“Right. Fix them all up like that and this world will be worth living on, sir. Where do we go now?”

“Keep scouting. Look for rebels and treat them the right way, like that dead thing back there—”

Cantrell had suddenly lost interest in the conversation. The talk of rebels was beyond him anyway. He had been studying, through his host’s eyes, the costume of the riders. They were unfamiliar, and somehow totally alien to anything earthly. Then with a shock of terror Cantrell saw that the horses had peculiarly long heads—and six legs!

He tore the set from his head and stared, wide-eyed, at Boyle. “Where were you?” he demanded. There was a shrill, hysterical note in his voice.

“Trying to get over,” said Boyle as he switched off the set. “But there was interference. We’ll have to go farther yet. I tuned in on a series of love-affairs from back on Earth.”

“Sure of that?” countered Cantrell. “Are you sure it was from Earth that you got the vibrations?”

“Why?” snapped Boyle. “What did you receive?”

Cantrell told him, and Boyle sat quietly for a long time, rattling his fingernails on a tabletop. “Yeah,” said Boyle at last. “I suspected something like that. Those women reacted in wholly unearthly fashion. The anatomy of these broadcasters is similar, but they aren’t Homo sapiens.”

“Fourth dimension?” wildly hazarded Cantrell. “Could we have tuned in on that?”

“No. For the reason that waves from the fourth dimension would have to be vectorially sub-operative to the seventh power, at least, and the machine would register any abnormal strain like that. No—not the fourth or any dimension except this one. Are there any invisible planets floating around? That alone would explain everything.”

“None that I know of, and I used to specialize in astronomy. Maybe—maybe we’ve caught up with the thought-waves from Earth on a return trip from the end of space? That would explain the talk about rebels.”

“And your six-legged horses, of course. Don’t be silly. We have to push on and get so damned far away from this spot that we won’t even remember where it is. I’m going to gun the ship hard and fast. You get on the polyphone and tell me when the thought-waves from the place begin to weaken and die out.”

Boyle squared his jaw at the fuel gage and began to reckon how much they could allow for steerage and headway. How thin they could cut the corners for the return trip to Earth when the problem of the shakes was solved.

Cantrell donned the head set and turned on the machine again. Again he reached out probing fingers into the crazy planet where horses had six legs and you could kill a man because he was a rebel against someone or something unspecified.

On the screen of his mind things began to take shape. He had landed plumb in the brain of a lady who was waiting for a lover whom she pictured as tall and handsome. The lady turned slowly and surveyed a colossal city that rose about her. She was standing just outside its walls. They were fine walls, solid and ponderous, fitted with gates able to withstand the charge of a battletank.

Her lover strolled up and there was a tender scene of greeting. Cantrell, feeling like a cad, reached out for another mind. He lighted on the brain of a person within the city; a person who considered himself as being of vast importance. All sorts of ponderous speculations were revolving through the important person’s head, principally when he would eat next. A young man, clad in a sort of tunic, approached.

The important person smiled. “Ah,” he cried. “My dear boy!”

The dear boy grinned briefly. “You’d better come. There’s a strike on at the tubing works. They seized possession of the whole plant.” The important person exploded with rage, swearing by strange gods. Cantrell shut off power and looked up.

“When,” he asked impatiently, “are you going to get going? It comes in as strong as ever.”

Boyle stared at him with a kind of sickly horror in his face. “Cantrell,” he said, “since you put on that set we’ve gone half a million miles at right angles to our former course.”

“Lord,” whispered his partner. “They’re following us!”

From random snatches of thought and casual, everyday conversation it is not easy, it is almost impossible in fact, to reconstruct the politics, biology and economics of an entire planet. Yet that, essentially, was what Boyle and Cantrell had to do. For flee where they might, nearer to or farther from Earth, they could not escape the vibrations from the land where horses had six legs.

From long periods of listening in and comparing, they discovered one important fact: that evolution was proceeding on that planet at a staggeringly rapid pace; that in fact the two partners had started out with a violently mistaken notion of the place’s tempo. It was swift, swifter than anything with which they were familiar.

But their eavesdropping made it seem close to normal, for the human brain can accommodate itself to any speed of delivery. It can assimilate and synthesize at a faster rate than either of the two had previously suspected. It was natural that this discovery should wait for a moment like this, for never before had the human mind been called on to deliver at that rate.

They discovered that the nameless land was tearing along at a scale of one to a million, approximately. When Cantrell had heard the horsemen curse the rebels, that had been the equivalent of the Puritan revolution in England, period of 1650 or thereabouts. A few minutes later he tuned in on a general strike that meant a lapse of about four hundred years.

In two weeks of voyaging through space the strange planet had arrived at a world state which Earth had not yet attained.

Boyle, irritably tuning in on the lunatic planet one day, drew a deep breath. “Cantrell!” he snapped. “Put your set on and follow my mind. I have a conference of astronomers!”

His partner grabbed the ponderous metal bowl and clapped it on, groping out for the familiar mind patterns of Boyle. He caught onto him in about three seconds, then switched to one of Boyle’s mental hosts. Through the eyes of that person he saw a sizable hall built up into a structure like the inside of a mushroom. As he studied the other persons in the hall he realized that physical evolution had progressed a few more steps since yesterday, when he had last tuned in on the place.

His host’s mood was one of confusion; through it he was speaking to the large gathering: “This symposium has been called on a somewhat abstract question. You all know what it is, I presume; otherwise you would not be astronomers.

“As one looks back towards the glorious dawning days of our science, the names of those who were martyred in the cause of truth rise before us. Despots, with their piddling knowledge and tiny telescopes, maintained that the world was round, did they not? It remained for the genius of our clan to demonstrate that it was a truncated paraboloid.

“Jealous superstition preached that like all other worlds ours had a core of rock in the state of stress fluid; it remained for us to prove that no such thing was true of our world—that we alone of all planets lived upon a shell of rhodium, and that that shell, though inconceivably thick, was not solid, and that our planet was definitely hollow.”

Cantrell looked up. “Lord,” he said softly. “Oh, Lordy! Now I know where those six-legged horses came from.”

“Yes,” said Boyle as he turned off the machine. “That planet is our ship, and those people are an entire civilization living on the shell of the old Andros. No wonder we couldn’t get away from them; they were being carried around with us.”

“It’s perfectly logical,” argued Cantrell. “We carry Earth gravity for our own comfort; that’s why we drew down a thin but definite atmosphere. Also dust and organic particles which settled on the hull. There was warmth from the inside of the ship, and that wonderful old Swede Arrhenius long ago demonstrated that spores of life are always present in space, driven by light-pressure. They landed on our hull, went through evolutionary stages, a man-like form emerged and is rapidly reaching a more advanced civilization than our own.”

“But,” grunted Boyle, “that doesn’t help us out with the shakes. If they’re swarming out there, we’ll never be able to probe each other. How can we shake them off? Spray acid on the hull?”

“No!” barked Cantrell. “We couldn’t do that—they have as much of a right to live as we. Perhaps—perhaps if we could communicate with them—?”

“Son,” raved Boyle, “you’ve got it! The answer to our prayers! A super-race made to order for the purpose of solving our problems. We’ll have to adapt the polyphone; that’s the only equipment we have. Son, we’re going to make this the most useful interference ever recorded!”

With bloodshot eyes and almost trembling fingers Cantrell tuned in the adapted polyphone. Then, through the eyes of a host he was surveying from an apparent altitude of twenty thousand feet a world enclosed in glass.

“Come in,” he said to Boyle. “Work toward the most powerful single person you can find.” Feeling his own mind augmented by his partner’s, he probed deep into the glassed-in world, toward the highest building he could find.

He landed in the brain of a highly trained mathematician and felt a swirl of fantastically complicated figures and tables. Then the mathematician walked through an automatic door into the presence of a person whom he regarded with almost holy awe. Cantrell realized then how rapidly the acceleration of evolution had curved upward on this tiny world. The personage was small and weighed down with a staggering amount of braincells that could be seen pulsing and throbbing under a transparent dura mater. The skull had been wholly absorbed.

“Right,” snapped Cantrell to his partner. “Push it out, son. Make it stick like glue.” The two psychologists united their minds in a staggering intellectual effort; there were visible sparks as they fused into one perfect sending outfit. Cantrell, only vaguely conscious of the personage and the mathematician, saw the former start with alarm and heard him ask as if from a distance: “Do you feel anything?”

“No,” said Cantrell’s host. “This matter of geodesics—”

“Leave me for a while,” said the personage. “I sense a message of great importance.” The mathematician exited, and Cantrell abruptly severed his mind from the host. For the first time he found himself to be a point of consciousness hanging before the personage, seeing, hearing and sending.

He raised his hand in a choppy gesture. Boyle nodded, and shut his eyes. Sweat stood out on his brow as he projected the message: “Boyle and Cantrell speaking. Can you hear us?”

The personage jumped as if he had been shot at. He looked around cautiously and said: “I can hear you. But who are you—where are you sending from?” In the language of the mind there is no need of translation; with the polyphone any two rational creatures can communicate.

The psychologists, now working as a perfect team, sent: “Speaking from the inside of your planet. But it isn’t a planet; it’s our spaceship. We’re from Earth—third planet around the sun. But let’s skip the formalities. What do you know about—” and they launched into a technical description of the shakes.

“Have you,” asked the important personage, “tried polarizing the crystalline lens of the eye? That should do it. It is not, as you thought, a psychodeficiency lesion but—” In clear, concise thought images he gave a complete outline of the cause and cure of spastitis malignans. And he knew what he was talking about, for this personage later announced himself to be the Chief Assimilator of the planetary division. He was the one who received all the technical data and assembled it for reference and use. Specialization had raced ahead on this planet.

“Thanks,” said the psychologists at length. “Thanks a lot. We’ll be heading back to Earth now—” he broke off in dismay. “If we do, that’s the end of your people. Because as soon as our gravity plates switch off you get flung out into space, and we can’t land without switching off the plates.”

“An interesting problem,” brooded the Assimilator. “But not insoluble. We can make our own plates if necessary. I advise you to set your ship—my planet—into an independent orbit around the sun. In about twenty minutes of your time we will have developed to the point where we will have our enclosed cities reinforced against anything but collision with a major planet. We trust you to set the orbit so that that will not happen. You must return to Earth by some makeshift means.” The Assimilator fell into a deep study, and the two psychologists withdrew.

Boyle glanced at a stop-watch. “That whole interview,” he said disbelievingly, “lasted exactly one one-thousandth of a second. That was thinking under pressure.” Cantrell was dashing onto paper what the Assimilator had told him about the shakes. And it made brilliant sense. He photographed his notes and handed a copy to Boyle.

“And now?” asked Boyle, carefully buttoning the data into a pocket.

“Now we take the lifeboat,” said Cantrell. He gestured distastefully at the little bullet of metal lugged to the wall. “It’s said to be the least pleasant way of travel known to man.” He turned to the control panel and set a simple course around the sun that would maintain itself after the fuel was wholly gone.

Jammed into the little craft, cans of food floating about their ears and a hammering roar of exhausts in their heads, they strained to see through the little port that was the only communication from the outside. Boyle yelled something inaudible.

“What?” shrieked Cantrell into his ear.

Boyle drew a great breath and pointed with one thumb at the little crescent of light behind them—the Andros. “I said,” he shrieked, “that it’s a good thing we got away from those submicroscopic Einsteins. They gave me an inferiority complex.”

Cantrell grinned briefly and strained his eyes to see until the world they had made was quite invisible in the black of space.