

9

HOMO SOL

The seven thousand and fifty-fourth session of the Galactic Congress sat in solemn conclave in the vast semicircular hall on Eon, second planet of Arcturus.

Slowly, the president delegate rose to his feet. His broad Arcturian countenance flushed slightly with excitement as he surveyed the surrounding delegates. His sense of the dramatic caused him to pause a moment or so before making the official announcement—for, after all, the entrance of a new planetary system into the great Galactic family is not a thing likely to happen twice in any one man's lifetime.

A dead silence prevailed during that pause. The two hundred and eighty-eight delegates—one from each of the two hundred and eighty-eight oxygen-atmosphere, water-chemistry worlds of the System—waited patiently for him to speak.

Beings of every manlike type and shape were there. Some were tall and polelike, some broad and burly, some short and stumpy. There were those with long, wiry hair, those with scanty gray fuzz

covering head and face, others with thick, blond curls piled high, and still others entirely bald. Some possessed long, hair-covered trumpets of ears, others had tympanum membranes flush with their temples. There were those present with large gazellelike eyes of a deep-purple luminosity, others with tiny optics of a beady black. There was a delegate with green skin, one with an eight-inch proboscis and one with a vestigial tail. Internally, variation was almost infinite.

But all were alike in two things.

They were all Humanoid. They all possessed intelligence.

The president delegate's voice boomed out then: "Delegates! The system of Sol has discovered the secret of interstellar travel and by that act becomes eligible for entrance into the Galactic Federation."

A storm of approving shouts arose from those present and the Arcturian raised a hand for silence.

"I have here," he continued, "the official report from Alpha Centauri, on whose fifth planet the Humanoids of Sol have landed. The report is entirely satisfactory and so the ban upon travel into and communication with the Solarian System is lifted. Sol is free, and open to the ships of the Federation. Even now, there is in preparation an expedition to Sol, under the leadership of Joselin Arn of Alpha Centauri, to tender that System the formal invitation into the Federation."

He paused, and from two hundred and eighty-eight throats came the stentorian shout: "Hail, Homo Sol! Hail, Homo Sol! *Hail!*"

It was the traditional welcome of the Federation for all new worlds.

Tan Porus raised himself to his full height of five feet two—he was tall for a Rigellian—and his sharp, green eyes snapped with annoyance.

"There it is, Lo-fan. For six months that damned freak squid from Beta Draconis IV has stumped me."

Lo-fan stroked his forehead gently with one long finger, and one hairy ear twitched several times. He had traveled eighty-five light years to be here on Arcturus II with the greatest psychologist of the Federation—and, more specifically, to see this strange mollusk whose reactions had stumped the great Rigellian.

He was seeing it now: a puffy, dull-purple mass of soft flesh that writhed its tentacular form in placid unconcern through the huge tank of water that held it. With unruffled serenity, it fed on the green fronds of an underwater fern.

"Seems ordinary enough," said Lo-fan.

"Ha!" snorted Tan Porus. "Watch this."

He drew the curtain and plunged the room into darkness. Only a dim blue light shone upon the tank, and in the murk the Draconian squid could barely be discerned.

"Here goes the stimulus," grunted Porus. The screen above his head burst into soft green light, focused directly upon the tank. It persisted a moment and gave way to a dull red and then almost at once to a brilliant yellow. For half a minute it shot raggedly through the spectrum and then, with a final glare of glowing white, a clear bell-like tone sounded.

And as the echoes of the note died away, a shudder passed over the squid's body. It relaxed and sank slowly to the bottom of the tank.

Porus pulled aside the curtain. "It's *sound* asleep," he growled. "Hasn't failed yet. Every specimen we've ever had drops as if shot the moment that note sounds."

"Asleep, eh? That's strange. Have you got the figures on the stimulus?"

"Certainly! Right here. The exact wave lengths of the lights required are listed, plus the length of duration of each light unit, plus the exact pitch of the sounded note at the end."

The other surveyed the figures dubiously. His forehead wrinkled and his ears rose in surprise. From an inner pocket, he drew forth a slide rule.

"What type nervous system has the animal?"

"Two-B. Plain, simple, ordinary Two-B. I've had the anatomists, physiologists, and ecologists check that until they were blue in the face. Two-B is all they get. Damn fools!"

Lo-fan said nothing, but pushed the center bar of the rule back and forth carefully. He stopped and peered closely, shrugged his shoulders, and reached for one of the huge volumes on the shelf above his head. He leafed through the pages and picked out numbers from among the close print. Again the slide rule.

Finally he stopped. "It doesn't make sense," he said helplessly.

"I know that! I've tried six times in six different ways to explain that reaction—and I failed each time. Even if I rig up a system that will explain its going to sleep, I can't get it to explain the specificity of the stimulus."

"It's highly specific?" questioned Lo-fan, his voice reaching the higher registers.

"That's the worst part of it," shouted Tan Porus. He leaned forward and tapped the other on the knee. "If you shift the wave length of any of the light units by fifty angstroms either way—any *one*

of them—it doesn't sleep. Shift the length of duration of a light unit two seconds either way—it doesn't sleep. Shift the pitch of the tone at the end an eighth of an octave either way—it doesn't sleep. *But* get the right combination, and it goes straight into a coma."

Lo-fan's ears were two hairy trumpets, stiffly erect. "Galaxy!" he whispered. "How did you ever stumble on the combination?"

"I didn't. It happened at Beta Draconis. Some hick college was putting its freshmen through a lab period on light-sound reactions of molluscoids—been doing it for years. Some student runs through his light-sound combinations and his blasted specimen goes to sleep. Naturally, he's scared out of his wits and brings it to the instructor. The instructor tries it again on another squid—it goes to sleep. They shift the combination—nothing happens. They go back to the original—it goes to sleep. After they fooled around with it long enough to know they couldn't make head or tail of it, they sent it to Arcturus and wished it on me. It's six months since *I* had a real night's sleep."

A musical note sounded and Porus turned impatiently.

"What is it?"

"Messenger from the president delegate of Congress, sir," came in metallic tones from the telecaster on his desk.

"Send him up."

The messenger stayed only long enough to hand Porus an impressively sealed envelope and to say in hearty tone: "Great news, sir. The system of Sol has qualified for entrance."

"So what?" snorted Porus beneath his breath as the other left. "We all knew it was coming."

He ripped off the outer sheath of cello-fiber from the envelope and removed the sheaf of papers from within. He glanced through them and grimaced.

"Oh, *Rigell*"

"What's wrong?" asked Lo-fan.

"Those politicians keep bothering me with the most inconsequential things. You'd think there wasn't another psychologist on Eron. Look! We've been expecting the Solarian System to solve the principle of the hyperatomo any century now. They've finally done it and an expedition of theirs landed on Alpha Centauri. At once, there's a politicians' holiday! We must send an expedition of our own to ask them to join the Federation. And, of course, we must have a psychologist along to ask them in a nice way so as to be sure of getting the right reaction, because, to be sure, there isn't a man in the army that ever gets proper training in psychology."

Lo-fan nodded seriously. "I know, I know. We have the same trouble out our way. They don't need psychology until they get into trouble and then they come running."

"Well, it's a cinch *I'm* not going to Sol. This sleeping squid is too important to neglect. It's a routine job, anyway—this business of raking in new worlds; a Type A reaction that any sophomore can handle."

"Whom will you send?"

"I don't know. I've got several good juniors under me that can do this sort of thing with their eyes closed. I'll send one of them. And meanwhile, I'll be seeing you at the faculty meeting tomorrow, won't I?"

"You will—and hearing me, too. I'm making a speech on the finger-touch stimulus."

"Good! I've done work on it, so I'll be interested in hearing what you have to say. Till tomorrow, then."

Left alone, Porus turned once more to the official report on the Solarian System which the messenger had handed him. He leafed through it leisurely, without particular interest, and finally put it down with a sigh.

"Lor Haridin could do it," he muttered to himself. "He's a good kid—deserves a break."

He lifted his tiny bulk out of the chair and, with the report under his arm, left his office and trotted down the long corridor outside. As he stopped before a door at the far end, the automatic flash blazed up and a voice within called out to him to enter.

The Rigellian opened the door and poked his head inside. "Busy, Haridin?"

Lor Haridin looked up and sprang to his feet at once. "Great space, boss, no! I haven't had anything to do since I finished work on anger reactions. You've got something for me, maybe?"

"I have—if you think you're up to it. You've heard of the Solarian System, haven't you?"

"Sure! The visors are full of it. They've got interstellar travel, haven't they?"

"That's right. An expedition is leaving Alpha Centauri for Sol in a month. They'll need a psychologist to do the fine work, and I was thinking of sending you."

The young scientist reddened with delight to the very top of his hairless dome. "Do you mean it, boss?"

"Why not? That is—if you think you can do it."

"Of course I can." Haridin drew himself up in offended hauteur. "Type A reaction! I can't miss."

"You'll have to learn their language, you know, and administer the stimulus in the Solarian tongue. It's not always an easy job."

Haridin shrugged. "I still can't miss. In a case like this, translation need only be seventy-five percent effective to get ninety-nine and six tenths percent of the desired result. That was one of the problems I had to solve on my qualifying exam. So you can't trip me up that way."

Porus laughed. "All right, Haridin, I know you can do it. Clean up everything here at the university and sign up for indefinite leave. And if you can, Haridin, write some sort of paper on these Solarians. If it's any good, you might get senior status on the basis of it."

The junior psychologist frowned. "But, boss, that's old stuff. Humanoid reactions are as well known as . . . as— You *can't* write anything on them."

"There's always something if you look hard enough, Haridin. Nothing is well known; remember that. If you'll look at Sheet 25 of the report, for instance, you'll find an item concerning the care with which the Solarians armed themselves on leaving their ship."

The other turned to the proper page. "That's reasonable," said he. "An entirely normal reaction."

"Certainly. But they insisted on retaining their weapons throughout their stay, even when they were greeted and welcomed by fellow Humanoids. *That's* quite a perceptible deviation from the normal. Investigate it—it might be worth while."

"As you say, boss. Thanks a lot for the chance you're giving me. And say—how's the squid coming along?"

Porus wrinkled his nose. "My sixth try folded up and died yesterday. It's disgusting." And with that, he was gone.

Tan Porus of Rigel trembled with rage as he folded the handful of papers he held in two and tore them across. He plugged in the telecaster with a jerk.

"Get me Santins of the math department immediately," he snapped. His green eyes shot fire at the placid figure that appeared on the visor almost at once. He shook his fist at the image.

"What on Eron's the idea of that analysis you sent me just now, you Betelgeusian slime worm?"

The image's eyebrows shot up in mild surprise. "Don't blame me, Porus. They were your equations, not mine. Where did you get them?"

"Never mind where I got them. That's the business of the psychology department."

"All right! And solving them is the business of the mathematics department. That's the seventh set of the damndest sort of screwy equations I've ever seen. It was the worst yet. You made at least seventeen assumptions which you had no right to make. It took us two weeks to straighten you out, and finally we boiled it down—"

Porus jumped as if stung. "I know what you boiled it down to. I just tore up the sheets. You take eighteen independent variables in twenty equations, representing two months of work, and solve them out at the bottom of the last, last page with that gem of oracular wisdom—'a' equals 'a.' All that work—and all I get is an identity."

"It's still not my fault, Porus. You argued in circles, and in mathematics that means an identity and there's nothing you can do about it." His lips twitched in a slow smile. "What are you kicking about, anyway? 'A' does equal 'a,' doesn't it?"

"Shut up!" The telecaster went dead, and the psychologist closed his lips tightly and boiled inwardly. The light signal above the telecaster flashed to life again.

"What do you want now?"

It was the calm, impersonal voice of the receptionist below that answered him. "A messenger from the government, sir."

"Damn the government! Tell them I'm dead."

"It's important, sir. Lor Haridin has returned from Sol and wants to see you."

Porus frowned. "Sol? What Sol? Oh, I remember. Send him up, but tell him to make it snappy."

"Come in, Haridin," he said a little later, voice calmer, as the young Arcturian, a bit thinner, a bit more weary than he had been six months earlier when he left the Arcturian System, entered.

"Well, young man? Did you write the paper?"

The Arcturian gazed intently upon his fingernails. "No, sir!"

"Why not?" Porus' green eyes peered narrowly at the other. "Don't tell me you've had trouble."

"Quite a bit, boss." The words came with an effort. "The psychological board itself has sent for you after hearing my report. The fact of the matter is that the Solarian System has . . . has refused to join the Federation."

Tan Porus shot out of his chair like a jack-in-the-box and landed, purely by chance, on his feet.

"What!?"

Haridin nodded miserably and cleared his throat.

"Now, by the Great Dark Nebula," swore the Rigellian, distractedly, "if this isn't one sweet day! First, they tell me that 'a' equals 'a,' and then you come in and tell me you muffed a Type A reaction—*muffed it completely!*"

The junior psychologist fired up. "I didn't muff it. There's something wrong with the Solarians themselves. They're not normal. When I landed they went wild over us. There was a fantastic celebration—entirely unrestrained. Nothing was too good for us. I delivered the invitation before their parliament in their own language—a simple one which they call Esperanto. I'll stake my life that my translation was ninety-five percent effective."

"Well? And then?"

"I can't understand the rest, boss. First, there was a neutral reaction and I was a little surprised, and then"—he shuddered in retrospect—"in seven days—only seven days, boss—the entire planet had reversed itself completely. I couldn't follow their psychology, not by a hundred miles. I've brought home copies of their newspapers of the time in which they objected to joining with 'alien monstrosities' and refused to be 'ruled by inhumans of worlds parsecs away.' I ask you, does that make sense?"

"And that's only the beginning. It was light years worse than that. Why, good Galaxy, I went all the way into Type G reactions, trying to figure them out, and couldn't. In the end, we *had* to leave. We were in actual *physical* danger from those . . . those Earthmen, as they call themselves."

Tan Porus chewed his lip a while. "Interesting! Have you your report with you?"

"No. The psychological board has it. They've been going over it with a microscope all day."

"And what do they say?"

The young Arcturian winced. "They don't say it openly, but they leave a strong impression of thinking the report an inaccurate one."

"Well, I'll decide about that after I've read it. Meanwhile, come with me to Parliamentary Hall and you can answer a few questions on the way."

Joselin Arn of Alpha Centauri rubbed stubbled jaws with his huge, six-fingered hand and peered from under beetling brows at the semi-circle of diversified faces that stared down upon him. The psychological board was composed of psychologists of a score of worlds, and their united gaze was not the easiest thing in the world to withstand.

"We have been informed," began Friar Obel, head of the board

and native of Vega, home of the green-skinned men, "that those sections of the report dealing with Sol's military state are *your* work."

Joselin Arn inclined his head in silent agreement.

"And you are prepared to confirm what you have stated here, in spite of its inherent improbability? You are no psychologist, you know."

"No! But I'm a soldier!" The Centaurian's jaws set stubbornly as his bass voice rumbled through the hall. "I don't know equations and I don't know graphs—but I *do* know spaceships. I've seen theirs and I've seen ours, and theirs are better. I've seen their first interstellar ship. Give them a hundred years and they'll have a better hyperatomos than we have. I've seen their weapons. They've got almost everything we have, at a stage in their history millennia before us. What they haven't got—they'll get, and soon. What they have got, they'll improve.

"I've seen their munitions plants. Ours are more advanced, but theirs are more efficient. I've seen their soldiers—and I'd rather fight with them than against them.

"I've said all that in the report. I say it again now."

His brusque sentences came to an end and Friar Obel waited for the murmur from the men about him to cease.

"And the rest of their science; medicine, chemistry, physics? What of them?"

"I'm not the best judge of those. You have the report there of those who know, however, and to the best of my knowledge I confirm them."

"And so these Solarians are true Humanoids?"

"By the circling worlds of Centauri, yes!"

The old scientist drew himself back in his chair with a peevish gesture and cast a rapid, frowning glance up and down the length of the table.

"Colleagues," he said, "we make little progress by rehashing this mess of impossibilities. We have a race of Humanoids of a superlatively technological turn; possessing at the same time an intrinsically unscientific belief in supernatural forces, an incredibly childish predilection toward individuality, singly and in groups, and, worst of all, lack of sufficient vision to embrace a galaxy-wide culture."

He glared down upon the lowering Centaurian before him. "Such a race must exist if we are to believe the report—and fundamental axioms of psychology must crumble. But I, for one, refuse to believe any such—to be vulgar about it—comet gas. This is plainly a case of

mismanagement to be investigated by the proper authorities. I hope you all agree with me when I say that this report be consigned to the scrap heap and that a second expedition led by an expert in his line, not by an inexperienced junior psychologist or a soldier—"

The drone of the scientist's voice was buried suddenly in the crash of an iron fist against the table. Joselin Arn, his huge bulk writhing in anger, lost his temper and gave vent to martial wrath.

"Now, by the writhing spawn of Templis, by the worms that crawl and the gnats that fly, by the cesspools and the plague spots, and by the hooded death itself, *I won't allow this*. Are you to sit there with your theories and your long-range wisdom and deny what I have seen with my eyes? Are my eyes?"—and they flashed fire as he spoke—"to deny themselves because of a few wriggling marks your palsied hands trace on paper?"

"To the core of Centauri with these armchair wise men, say I—and the psychologists first of all. Blast these men who bury themselves in their books and their laboratories and are blind to what goes on in the living world outside. Psychology, is it? Rotten, putrid—"

A tap on his belt caused him to whirl, eyes staring, fists clenched. For a moment, he looked about vainly. Then, turning his gaze downward, he found himself looking into the enigmatic green eyes of a pygmy of a man, whose piercing stare seemed to drench his anger with ice water.

"I know you, Joselin Arn," said Tan Porus slowly, picking his words carefully. "You're a brave man and a good soldier, but you don't like psychologists, I see. That is wrong of you, for it is on psychology that the political success of the Federation rests. Take it away and our Union crumbles, our great Federation melts away, the Galactic System is shattered." His voice descended into a soft, liquid croon. "You have sworn an oath to defend the System against all its enemies, Joselin Arn—and you yourself have now become its greatest. You strike at its foundations. You dig at its roots. You poison it at its source. You are dishonored. You are disgraced. You are a traitor."

The Centaurian soldier shook his head helplessly. As Porus spoke, deep and bitter remorse filled him. Recollection of his words of a moment ago lay heavy on his conscience. When the psychologist finished, Arn bent his head and wept. Tears ran down those lined, war-scarred cheeks, to which for forty years now they had been a stranger.

Porus spoke again, and this time his voice boomed like a thunder-

clap: "Away with your mowling whine, you coward. Danger is at hand. *Man the guns!*"

Joselin Arn snapped to attention; the sorrow that had filled him a bare second before was gone as if it had never existed.

The room rocked with laughter and the soldier grasped the situation. It had been Porus' way of punishing him. With his complete knowledge of the devious ins and outs of the Humanoid mind, he had only to push the proper button, and—

The Centaurian bit his lip in embarrassment, but said nothing.

But Tan Porus, himself, did not laugh. To tease the soldier was one thing; to humiliate him, quite another. With a bound, he was on a chair and laid his small hand on the other's massive shoulder.

"No offense, my friend—a little lesson, that is all. Fight the sub-humanoids and the hostile environments of fifty worlds. Dare space in a leaky rattletrap of a ship. Defy whatever dangers you wish. But never, *never* offend a psychologist. He might get angry in *earnest* the next time."

Arn bent his head back and laughed—a gigantic roar of mirth that shook the room with its earthquakelike lustiness.

"Your advice is well taken, psychologist. Burn me with an atomo, if I don't think you're right." He strode from the room with his shoulders still heaving with suppressed laughter.

Porus hopped off the chair and turned to face the board.

"This is an interesting race of Humanoids we have stumbled upon, colleagues."

"Ah," said Obel, dryly, "the great Porus feels bound to come to his pupil's defense. Your digestion seems to have improved, since you feel yourself capable of swallowing Haridin's report."

Haridin, standing, head bowed, in the corner, reddened angrily, but did not move.

Porus frowned, but his voice kept to its even tone. "I do, and the report, if properly analyzed, will give rise to a revolution in the science. It is a psychological gold mine; and Homo Sol, the find of the millenium."

"Be specific, Tan Porus," drawled someone. "Your tricks are all very well for a Centaurian blockhead, but we remain unimpressed."

The fiery little Rigellian emitted a gurgle of anger. He shook one tiny fist in the direction of the last speaker.

"I'll be more specific, Inar Tubal, you hairy space bug." Prudence and anger waged a visible battle within him. "There is more to a Humanoid than you think—certainly far more than you mental cripples

can understand. Just to show you what you don't know, you desiccated group of fossils, I'll undertake to show you a bit of psycho-technology that'll knock the guts right out of you. Panic, morons, panic! Worldwide *panic!*"

There was an awful silence. "Did you say world-wide panic?" stuttered Friar Obel, his green skin turning gray. "Panic?"

"Yes, you parrot. Give me six months and fifty assistants and I'll show you a world of Humanoids in panic."

Obel attempted vainly to answer. His mouth worked in a heroic attempt to remain serious—and failed. As though by signal, the entire board dropped its dignity and leaned back in a single burst of laughter.

"I remember," gasped Inar Tubal of Sirius, his round face streaked with tears of pure joy, "a student of mine who once claimed to have discovered a stimulus that would induce world-wide panic. When I checked his results, I came across an exponent with a misplaced decimal point. He was only ten orders of magnitude out of the way. How many decimal points have you misplaced, Colleague Porus?"

"What of Kraut's Law, Porus, which says you can't panic more than five Humanoids at a time? Shall we pass a resolution repealing it? And maybe the atomic theory as well, while we're about it?" and Semper Gor of Capella cackled gleefully.

Porus climbed onto the table and snatched Obel's gavel. "The next one who laughs is getting this over his empty head." There was sudden silence.

"I'm taking fifty assistants," shouted the green-eyed Rigellian, "and Joselin Arn is taking me to Sol. I want five of you to come with me—Inar Tubal, Semper Gor and any three others—so that I can watch their stupid faces when I've done what I said I would." He hefted the gavel, threateningly. "Well?"

Friar Obel gazed at the ceiling placidly. "All right, Porus. Tubal, Gor, Helvin, Prat, and Winson can go with you. At the end of the specified time, we'll witness world-wide panic which will be very gratifying—or we'll watch you eat your words, and how much more gratifying *that* would be." And with that, he chuckled very quietly to himself.

Tan Porus stared thoughtfully out the window. Terrapolis, capital city of Earth, sprawled beneath him to the very edge of the horizon. Its muted roar reached even to the half-mile height at which he stood.

There was something over that city, invisible and intangible but none the less real. Its presence was only too evident to the small psychologist. The choking cloak of dank fear that spread over the metropolis beneath was one of his own weaving—a horrible cloak of dark uncertainty, that clutched with clammy fingers at the hearts of Mankind and stopped short—just short—of actual panic.

The roar of the city had voices in it, and the voices were tiny ones of fear.

The Rigellian turned away in disgust. "Hey, Haridin," he roared.

The young Arcturian turned away from the televisor. "Calling me, boss?"

"What do you think I'm doing? Talking to myself? What's the latest from Asia?"

"Nothing new. The stimuli just aren't strong enough. The yellow men seem to be more stolid of disposition than the white dominants of America and Europe. I've sent out orders not to increase the stimuli, though."

"No, they mustn't," agreed Porus. "We can't risk *active* panic." He ruminated in silence. "Listen, we're about through. Tell them to hit a few of the big cities—they're more susceptible—and quit."

He turned to the window again. "Space, what a world—what a world! An entirely new branch of psychology has opened up—one we never dreamed of. Mob psychology, Haridin, mob psychology." He shook his head impressively.

"There's lots of suffering, though, boss," muttered the younger man. "This passive panic has completely paralyzed trade and commerce. The business life of the entire planet is stagnant. The poor government is helpless—they don't know what's wrong."

"They'll find out—when I'm ready. And, as for the suffering—well, I don't like it, either, but it's all a means to an end, a damned important end."

There followed a short silence, and then Porus' lips twitched into a nasty smile. "Those five nitwits returned from Europe yesterday, didn't they?"

Haridin smiled in turn and nodded vigorously. "And hopping sore! Your predictions have checked to the fifth decimal place. They're fit to be tied."

"Good! I'm only sorry I can't see Obel's face right now, after the last message I sent him. And, incidentally"—his voice dropped lower—"what's the latest on *them*?"

Haridin raised two fingers. "Two weeks, and they'll be here."

"Two weeks . . . two weeks," gurgled Porus jubilantly. He rose

and made for the door. "I think I'll find my dear, dear colleagues and pass the time of day."

The five scientists of the board looked up from their notes and fell into an embarrassed silence as Porus entered.

The latter smiled impishly. "Notes satisfactory, gentlemen? Found some fifty or sixty fallacies in my fundamental assumptions, no doubt?"

Hybron Prat of Alpha Cepheus rumbled the gray fuzz he called hair. "I don't trust the unholy tricks this crazy mathematical notation of yours plays."

The Rigellian emitted a short bark of laughter. "Invent a better, then. So far, it's done a good job of handling reactions, hasn't it?"

There was an unmusical chorus of throat-clearings but no definite answer.

"Hasn't it?" thundered Porus.

"Well, what if it has," returned Kim Winson, desperately. "Where's your panic? All this is well and good. These Humanoids are cosmic freaks, but where's the big show you were going to put on? Until you break Kraut's Law, this entire exhibition of yours isn't worth a pinhead meteor."

"You're beaten, gentlemen, you're beaten," crowed the small master psychologist. "I've proven my point—this passive panic is as impossible according to classic psychology as the active form. You're trying to deny facts and save face now, by harping on a technicality. Go home; go home, gentlemen, and hide under the bed."

Psychologists are only human. They can analyze the motives that drive them, but they are the slave of those motives just as much as the commonest mortal of all. These galaxy-famous psychologists writhed under the lash of wounded pride and shattered vanity, and their blind stubbornness was the mechanical reaction due therefrom. They knew it was and they knew Porus knew it was—and that made it all the harder.

Inar Tubal stared angrily from red-rimmed eyes. "Active panic or nothing, Tan Porus. That's what you promised, and that's what we'll have. We want the letter of the bond or, by space and time, we'll balk at any technicality. Active panic or we report failure!"

Porus swelled ominously and, with a tremendous effort, spoke quietly. "Be reasonable, gentlemen. We haven't the equipment to handle active panic. We've never come up against this superform they have here on Earth. What if it gets beyond control?" He shook his head violently.

"Isolate it, then," snarled Semper Gor. "Start it up and put it out. Make all the preparations you want, but do it!"

"If you can," grunted Hybron Prat.

But Tan Porus had *his* weak point. His brittle temper lay in splintered shards about him. His agile tongue blistered the atmosphere and inundated the sullen psychologist with wave after wave of concentrated profanity.

"Have your way, vacuumheads! Have your way and to outer space with you!" He was breathless with passion. "We'll set it off right here in Terrapolis as soon as all the men are back home. Only you'd all better get from under!"

And with one last parting snarl, he stalked from the room.

Tan Porus parted the curtains with a sweep of his hand, and the five psychologists facing him averted their eyes. The streets of Earth's capital were deserted of civilian population. The ordered tramp of the military patrolling the highways of the city sounded like a dirge. The wintry sky hung low over a scene of strewn bodies—and silence; the silence that follows an orgy of wild destruction.

"It was touch and go for a few hours there, colleagues." Porus' voice was tired. "If it had passed the city limits, we could never have stopped it."

"Horrible, horrible!" muttered Hybron Prat. "It was a scene a psychologist would have given his right arm to witness—and his life to forget."

"And these are Humanoids!" groaned Kim Winson.

Semper Gor rose to his feet in sudden decision. "Do you see the significance of this, Porus? These Earthmen are sheer uncontrolled atomite. They can't be handled. Were they twice the technological geniuses they are, they would be useless. With their mob psychology, their mass panics, their superemotionalism, they simply won't fit into the Humanoid picture."

Porus raised an eyebrow. "Comet gas! Individually, we are as emotional as they are. They carry it into mass action and we don't; that's the only difference."

"And that's enough!" exclaimed Tubal. "We've made our decision, Porus. We made it last night, at the height of the . . . the . . . of *it*. The Solar System is to be left to itself. It is a plague spot and we want none of it. As far as the Galaxy is concerned, Homo Sol will be placed in strict quarantine. That is final!"

The Rigellian laughed softly. "For the Galaxy, it may be final. But for Homo Sol?"

Tubal shrugged. "They don't concern us."

Porus laughed again. "Say, Tubal. Just between the two of us, have you tried a time integration of Equation 128 followed by expansion with Karolean tensors?"

"No-o. I can't say I have."

"Well, then, just glance up and down these calculations and enjoy yourself."

The five scientists of the board grouped themselves about the sheets of paper Porus had handed them. Expressions changed from interest to bewilderment and then to something approaching panic.

Naru Helvin tore the sheets across with a spasmodic movement. "It's a lie," he screeched.

"We're a thousand years ahead of them now, and by that time we'll be advanced another two hundred years!" Tubal snapped. "They won't be able to do anything against the mass of the Galaxy's people."

Tan Porus laughed in a monotone, which is hard to do, but very unpleasant to hear. "You still don't believe mathematics. That's in your behavior pattern, of course. All right, let's see if experts convince you—as they should, unless contact with these off-normal Humanoids has twisted you. Joselin—Joselin Arn—come in here!"

The Centaurian commander came in, saluted automatically, and looked expectant.

"Can one of your ships defeat one of the Sol ships in battle, if necessary?"

Arn grinned sourly. "Not a chance, sir. These Humanoids break Kraut's Law in panic—and also in fighting. We have a corps of experts manning our ships; these people have a single crew that functions as a unit, without individuality. They manifest a form of fighting—panic, I imagine, is the best word. Every individual on a ship becomes an organ of the ship. With us, as you know, that's impossible.

"Furthermore, this world's a mass of mad geniuses. They have, to my certain knowledge, taken no less than twenty-two interesting but useless gadgets they saw in the Thalsoon Museum when they visited us, turned 'em inside out, and produced from them some of the most unpleasant military devices I've seen. You know of Julmun Thill's gravitational line tracer? Used—rather ineffectively—for spotting ore deposits before the modern electric potential method came in?"

"They've turned it—somehow—into one of the deadliest automatic fire directors it's been my displeasure to see. It will automatically lay a gun or projector on a completely invisible target in space, air, water or rock, for that matter."

"We," said Tan Porus, gleefully, "have far greater fleets than they. We could overwhelm them, could we not?"

Joselin Arn shook his head. "Defeat them now—probably. It wouldn't be overwhelming, though, and I wouldn't bet on it too heavily. Certainly wouldn't invite it. The trouble is, in a military way, this collection of gadget maniacs invent things at a horrible rate. Technologically, they're as unstable as a wave in water; our civilization is more like a sanddune. I've seen their ground-car plants install a complete plant of machine tools for production of a new model of automobile—and rip it out in six months because it's completely obsolete!

"Now we've come in contact with their civilization briefly. We've learned the methods of one new civilization to add to our previous two hundred and eighty-odd—a small percentage advantage. They've added one new civilization to their previous one—a one-hundred-percent advance!"

"How about," Porus asked gently, "our military position if we simply ignore them completely for two hundred years?"

Joselin Arn gave an explosive little laugh. "If we could—which means if they'd let us—I'd answer offhand and with assurance. They're all I'd care to tackle right now. Two hundred years of exploring the new tracks suggested by their brief contact with us and they'd be doing things I can't imagine. Wait two hundred years and there won't be a battle; there'll be an annexation."

Tan Porus bowed formally. "Thank you, Joselin Arn. That was the result of my mathematical work."

Joselin Arn saluted and left the room.

Turning to the five thoroughly paralyzed scientists, Porus went on: "And I hope these learned gentlemen still react in a vaguely Humanoid way. Are you convinced that it is not up to us to decide to end all intercourse with this race? We may—but they won't!

"Fools"—he spat out the word—"do you think I'm going to waste time arguing with you? I'm laying down the law, do you understand? Homo Sol *shall* enter the Federation. They are going to be trained into maturity in two hundred years. And I'm not asking you; I'm *telling you!*" The Rigellian stared up at them truculently.

"Come with me!" he growled brusquely.

They followed in tame submission and entered Tan Porus' sleeping quarters. The little psychologist drew aside a curtain and revealed a life-size painting.

"Make anything of that?"

It was the portrait of an Earthman, but of such an Earthman as

none of the psychologists had yet seen. Dignified and sternly handsome, with one hand stroking a regal beard, and the other holding the single flowing garment that clothed him, he seemed personified majesty.

"That's Zeus," said Porus. "The primitive Earthmen created him as the personification of storm and lightning." He whirled upon the bewildered five. "Does it remind you of anybody?"

"Homo Canopus?" ventured Helvin uncertainly.

For a moment, Porus' face relaxed in momentary gratification and then it hardened again. "Of course," he snapped. "Why do you hesitate about it? That's Canopus to the life, down to the full yellow beard."

Then: "Here's something else." He drew another curtain.

The portrait was of a female, this time. Full-bosomed and wide-hipped she was. An ineffable smile graced her face and her hands seemed to caress the stalks of grain that sprang thickly about her feet.

"Demeter!" said Porus. "The personification of agricultural fertility. The idealized mother. Whom does *that* remind you of?"

There was no hesitation this time. Five voices rang out as one: "Homo Betelgeuse!"

Tan Porus smiled in delight. "There you have it. Well?"

"Well?" said Tubal.

"Don't you see?" The smile faded. "Isn't it clear? Nitwit! If a hundred Zeuses and a hundred Demeters were to land on Earth as part of a 'trade mission,' and turned out to be trained psychologists—*Now* do you see?"

Semper Gor laughed suddenly. "Space, time, and little meteors. Of course! The Earthmen would be putty in the hands of their own personifications of storm and motherhood come to life. In two hundred years—why, in two hundred years, we could do anything."

"But this so-called trade mission of yours, Porus," interposed Prat. "How would you get Homo Sol to accept it in the first place?"

Porus cocked his head to one side. "Dear Colleague Prat," he murmured, "do you suppose that I created the passive panic just for the show—or just to gratify five woodenheads? This passive panic paralyzed industry, and the Terrestrial government is faced with revolution—another form of mob action that could use investigation. Offer them Galactic trade and eternal prosperity and do you think they'd jump at it? Has matter mass?"

The Rigellian cut short the excited babble that followed with an impatient gesture. "If you've nothing more to ask, gentlemen, let's begin our preparations to leave. Frankly, I'm tired of Earth, and, more than that, I'm blasted anxious to get back to that squid of mine."

He opened the door and shouted down the corridor: "Hey, Haridin! Tell Arn to have the ship ready in six hours. We're leaving."
 "But . . . but—" The chorus of puzzled objections crystallized into sudden action as Semper Gor dashed at Porus and snatched him back as he was on the point of leaving. The little Rigellian struggled vainly in the other's powerful grasp.

"Let go!"

"We've endured enough, Porus," said Gor, "and now you'll just calm down and behave like a Humanoid. Whatever you say, we're not leaving until we're finished. We've got to arrange with the Terrestrial government concerning the trade mission. We've got to secure approval of the board. We've got to pick our psychologist. We've got to—"

Here Porus, with a sudden jerk, freed himself. "Do you suppose for one moment that I would wait for your precious board to start to begin to commence to consider doing something about the situation in two or three decades?"

"Earth agreed to my terms unconditionally a month ago. The squad of Canopans and Betelgeusans set sail five months ago, and landed day before yesterday. It was only with their help that we managed to stop yesterday's panic—though you never suspected it. You probably thought you did it yourself. Today, gentlemen, they have the situation in full control and your services are no longer needed. We're going home."

THE END

"Homo Sol" has a plot of a sort that particularly appealed to Campbell. Although the human beings in the story are far behind the other intelligences of the Galaxy, it is clear that there is something special about them, that they have an unusual ability to move ahead very quickly, and that everyone else had better watch out for them.

Campbell liked stories in which human beings proved themselves superior to other intelligences, even when those others were further advanced technologically. It pleased him to have human beings shown to possess a unique spirit of daring, or a sense of humor, or a ruthless ability to kill when necessary, that always brought them victory over other intelligences, even against odds.

I sometimes got the uncomfortable notion, however, that this attitude reflected Campbell's feelings on the smaller, Earth scale.

He seemed to me to accept the natural superiority of Americans over non-Americans, and he seemed automatically to assume the picture of an American as one who was of northwest European origin.

I cannot say that Campbell was racist in any evil sense of the term. I cannot recall any act of his that could be construed as unkind, and certainly he never, *not once*, made me feel uncomfortable over the fact that I was Jewish. Nevertheless, he did seem to take for granted, somehow, the stereotype of the Nordic white as the true representative of Man the Explorer, Man the Darer, Man the Victor.

I argued with him strenuously on the subject, or as violently as I dared, and in years to come our relationship was to be as nearly strained as it could be (considering our mutual affection, and all that I owed him) over the civil rights issue. I was on the liberal side of the issue, he on the conservative, and our minds never met on that subject.

All this had an important bearing on my science fiction work. I did not like Campbell's attitude concerning humanity vis-à-vis other intelligences and it took two revisions of "Homo Sol" before Campbell could move me close enough to what he wanted. Even then, he inserted several paragraphs, here and there, without consulting me, in the final version.

I tried to avoid such a situation in future. One way out was to depart from the traditions of those writers who wove plots against the gigantic web of entire galaxies containing many intelligences—notably those of E. E. Smith and of Campbell himself. Instead, I began to think of stories involving a galaxy populated by human intelligences only.

This came to fruit, soon enough, in the "Foundation" series. Undoubtedly the Smith-Campbell view makes more sense. It is almost certain that among the hundreds of billions of worlds in a large galaxy there ought to be hundreds or even thousands of different intelligent species. That there should be only one, ourselves, as I postulated, is most unlikely.

Some science fiction critics (notably Sam Moskowitz) have given me credit for inventing the human-only galaxy, as though it were some kind of literary advance. Others may have thought privately (I have never heard it stated openly) that I had only human intelligences in my galaxy because I lacked the imagination to think up extraterrestrials.

But the fact is that I was only trying to avoid a collision with

Campbell's views; I did not want to set up a situation in which I would be forced to face the alternatives of adopting Campbell's views when I found them repugnant and failing to sell a story (which I also found repugnant).

On March 25, 1940, the day I put through my final submission of "Homo Sol," I went on to visit Fred Pohl at his office. He told me that the response to "Half-Breed" had been such that he felt justified in asking for a sequel. It was the first time I had ever been requested to write a specific story with acceptance virtually guaranteed in advance.

I spent April and May working on the sequel, "Half-Breeds on Venus," and submitted it to Pohl on June 3. On June 14, he accepted it. The story was ten thousand words long, the longest I had ever sold up to that time. What's more, Pohl's magazines were doing so well that his budget had been increased and he was able to pay me five eighths of a cent a word for it—\$62.50.

It appeared in the issue of *Astonishing* that reached the stands on October 24, 1940, two years almost to a day since my first sale. This was a red-letter day for me, too, since it was the first time that the cover painting on a magazine was ever taken from one of my stories. I had "made the cover."

The title of the story and my name were on the cover in bold letters. It was a flattering indication that my name could be counted on to sell magazines by this time.

10

HALF-BREEDS ON VENUS

The damp, somnolent atmosphere stirred violently and shrieked aside. The bare plateau shook three times as the heavy egg-shaped projectiles shot down from outer space. The sound of the landing reverberated from the mountains on one side to the lush forest on the other, and then all was silent again.

One by one, three doors clanged open, and human figures stepped out in hesitant single file. First slowly, and then with impatient turbulence, they set first foot upon the new world, until the space surrounding the ships was crowded.

A thousand pairs of eyes gazed upon the prospect and a thousand mouths chattered excitedly. And in the other-world wind, a thousand crests of foot-high white hair swayed gracefully.

The Tweenies had landed on Venus!

Max Scanlon sighed wearily, "Here we are!"

He turned from the porthole and slumped into his own special arm-chair. "They're as happy as children—and I don't blame them. We've got a new world—one all for ourselves—and that's a great thing.