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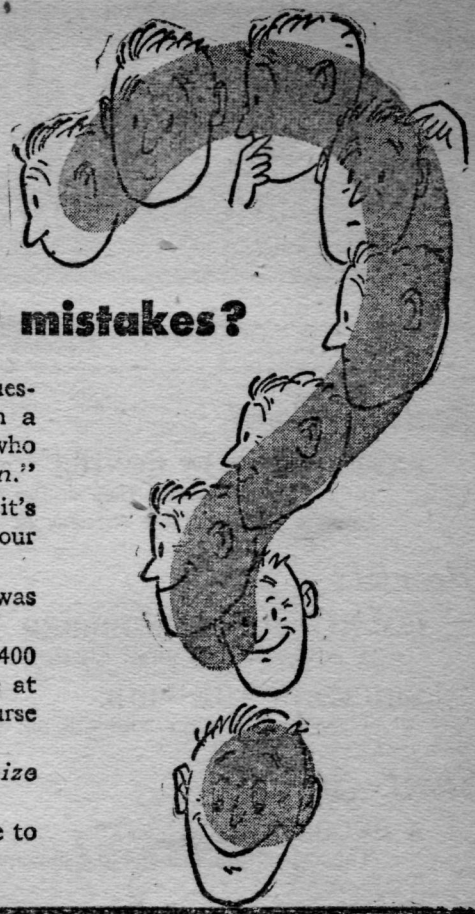

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Robert W. Lowndes, *Editor*

Volume 2 | November, 1951 | Number 4

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Novelets

Short Stories

Article

Departments

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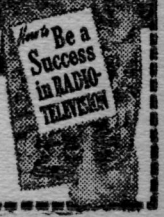

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When his experiments went wrong, Bruce would have fits of destructive frenzy.

EXPERIMENT IN GENIUS

Feature Novel of SARDONIC DESTINY

By William F. Temple

Bruce Lion had been trained from infancy to be a "genius". But no one seemed to realize just where his exceptional talents really were—they expected something different.

"No great genius was ever without some mixture of madness, nor can anything grand or superior to the voice of common mortals be spoken except by the agitated soul."

—Aristotle

"HOW WEARY, stale, flat and unprofitable seem to me all the uses of this world!" said the Psychologist, lying on his back under the tree set (by the Control Landscape Gardening Department) in rolling parkland.

"That's rather good," said the Biologist, reclining beside him, half asleep. "Your own?"

"No. A gentleman named Shakespeare made a gentleman named Hamlet say it."

"Oh—that unhealthy character."

"Who? Hamlet or Shakespeare?"

"Both. Anyone at all who lived before World Control was an unhealthy character; it stands to reason."

The Psychologist looked up through the tiny green leaves of spring to the

Given that most of the great men, upon whom we've tagged the label, "genius", have suffered various kinds of frustration —sometimes crippling frustration—does this prove that frustration is a necessary element in the evolution of a "genius"?

sky of blue perfection. He sighed. "I wish I had lived then."

"You're mad," yawned the Biologist, his eyes still shut.

"All right, then—I wish I were mad. We could do with a few madmen in this world; to my knowledge we haven't had one for over a century."

"What about Perkins, the painter, who thought he was a reincarnation of Leonardo da Vinci?"

"Oh, *him*." The Psychologist sniffed. "He didn't stretch my professional ability very far. It was just pique at his still life being rejected by the Academy. He hated being passed over, so he put on the da Vinci act to draw attention to himself. There was nothing to it; he admitted as much himself. Claimed that it was the artistic temperament. He's as sane as the rest of them—unfortunately. At first, for a little while, I had hopes. Artistic temperament! Good heavens, there isn't an artist among the lot of 'em!"

"If I remember rightly," said the Biologist, "Perkins' still life was of a piece of cheese. And it smelt like a piece of cheese."

"*All* still life smells. *We* are still life, and by the Lord we smell to high heaven!"

"Lilies that fester smell far worse than weeds," murmured the Biologist, sleepily. "Why, bless me, I do believe I've brought Shakespeare back again."

"If only you had—literally. If only Perkins *had* been a reincarnation of old Leonardo. That's what we need: a genius or two to wake us all up. We've had four centuries of peace and World Control, and what has it brought us to?"

"Perfection, they say."

"Degeneration, I say."

"You mean we've lost the rare skill of pitching atomic bombs?"

"Oh, don't be an idiot!" said the Psychologist, impatiently. "They didn't do it because they liked doing it; they only did it because they desperately wanted security, and they thought they were exterminating the enemies of security."

"Gasoline was never very much good for putting out fires."

"They learned that, all right, after the fires had burnt themselves out. They learned at last that the only security lay in common adherence to moral principles, a social code. The foundation stone of World Control has just the one inscription, *'Do unto others....'* We look back on our ancestors and pity their blindness. The path to security was so short and simple, yet they sweated and fought along tortuous, thorny, and false trails of their own creation."

"It was a wilful blindness, deserving no pity," said the Biologist.

"As yours is."

THE BIOLOGIST was so shocked that he opened one eye. "Eh?"

"As yours is. As this whole generation's is. We've achieved permanent security, and we are wilfully blind to its results. Life was a rushing river. We dammed it, and transformed it into a placid lake. And now on the surface of that lake are appearing the green and yellow warning signs of stagnation—foul stagnation."

"Oh, that." The Biologist closed his eye again. "All right, I'm lazy; we're all lazy. I like it that way. The lotus is my favorite fruit."

"Are you really happy that way?"

"Of course."

"What have you got to live for? There hasn't been a single new biological discovery for nearly a century. Or any other kind of discovery, come to that. Science is dying on its feet, and art is flat on its back, dead."

"Look," said the Biologist, still keeping his eyes shut and not looking himself, "our somewhat over-active forebears left us plenty of everything. The art galleries are bulging at the seams with their creations: it would take a lifetime merely to walk smartly through them and take a quick peek in passing. And it would take more than a lifetime—much more—

to absorb all the knowledge they left of even one branch of science. Who wants any *more* knowledge? Life's too short to get it all in as it is."

"Life's too short. Right, then—you have a goal: make it longer. You're a Biologist, and it's your line. Find the way to prolong life."

"Heaven forbid!"

"Why? Don't you want to live longer?"

"Not particularly."

"Then," said the Psychologist, deliberately, "you lied; you are *not* happy. A happy man wants to live forever. You're bored, just as I am, just as most of us are."

"So we're bored. What are you and I supposed to do about it—start a war?"

"No. Let's have a baby."

"Uh?" This time, the Biologist was really shocked: he opened both eyes.

"Let's ask the Administration if they'll let us have a baby to experiment with, to see if we can make a genius of it."

"Geniuses are born, not made."

"It's a bit of each; heredity and environment. We can control the environment. We can to some extent control the physical make-up. I don't say the result follows automatically—it's a chance, and probably an outside one. But it'll give us an interest in life, at least, and at most it may be the beginning of the saving of the race."

"Go on," said the Biologist.

The Psychologist went on, and at length.

●

HE HAD to go on at greater length before the committee from the Administration, rounding off his opening section with: "We need new blood, new outlook, vitalisation of the race—else it means slow decay and, perhaps, extinction."

The Psychologist was an optimist, and waited for the applause. As he had more or less stated that all and sundry, including the committee, were no better than morons, the committee kept its hands in its pockets.

He resumed, a little less of an optimist. "I've been making a study of the geniuses of the past—when there *were* geniuses. What do I find? That they mostly came from ordinary and quite undistinguished stock. Heredity seems to have had very little to do with it. Childhood environment and upbringing and often physical weaknesses or blemishes seem much more important, upbringing or weaknesses which have made them feel *inferior.* Julius Caesar and Dostoevsky were both epileptics. Napoleon was very undersized. Nietzsche was a hunchback—so was Kant. Edison was deaf, and Beethoven was ugly as well as deaf. Delius and Milton went blind. Keats and Tchekov were consumptive; so was Chopin. Pascal had literally but half a brain. Byron was clubfooted. I don't have to enlarge upon the sexual peculiarities of Michaelangelo, Tchaikovsky, Socrates, Ruskin, Poe, Shakespeare—"

"No, you certainly don't," interrupted the Chairman, coldly. "And kindly leave Shakespeare out of it—I never believed it."

"The medical experts claimed to detect in the later signatures of Shakespeare definite symptoms of incipient General Paralysis of the Insane—"

"Silence, sir!" barked the Chairman; "I will not have Shakespeare's genius smeared in this way."

"You admire Shakespeare's efforts?"

"Considerably more than I admire your own, sir. His genius has never been equalled, let alone over-topped; there's been no one remotely like him since."

"Nor will there ever be again, if your committee does not sanction my request. Think, sir, you may be the instrument for giving this world another Shakespeare!"

"Rubbish!" said the Chairman. But he looked thoughtful, and added: "Resume your discourse."

"Thank you. My conclusion is that oppressive circumstances, handicaps and frustration in childhood start the careers of geniuses. At first, the victims seek escape from the harsh world which oppresses them to a safer one—the world of their imagination. There the weaker ones are content to dream and make nothing material of their dreams. But the ones of a rebellious or resentful nature plan ways of gaining power or securing admiration—it's much the same thing—in the world from which they've fled. Because they've been denied respect they desire it above all else. They set themselves to work miracles to gain respect—and those miracles built our civilization. When we talk of 'Man's Unconquerable Mind,' we mean those people, collectively—not the multitudinous stick-in-the-muds who do the world's donkey work and never have an original idea in their lives. The geniuses are 'Man'—the rest of us are just hangers-on. And now we have no geniuses, we have no right to the name Man, we are parasites of the past, and the only thing we have created is a new low."

THE CHAIRMAN said: "I don't agree. Men have never been more physically fit nor more extensively educated than they are now—never in all their history. Every man is perfect—without exception."

"Without exception," nodded the Psychologist. "That's the whole point—don't you see? The geniuses *are* the exceptions. Imagine mankind as a group of cattle in a field. The geniuses are those rare cattle who seek escape, who look for gateways to other fields and find them and make larger the territory of mankind. But today none wants to escape from the field, they have no motive, they are brought up content from the cradle. Through careful genetics and training everyone is physically perfect. There are no injustices, no inequalities—not even of position: I may call you a fool if I wish, but, of course, only a perfect one—no maladjustments, no inferiority complexes, and therefore no geniuses. We, the cattle, stand here in our field in the true bovine manner, and here we shall until we rot from inaction."

"H'm," said the Chairman. "But you seem to want to get out of the field."

"Then perhaps I am a genius."

The whole committee roared with laughter, and the Biologist, who was present, became quite helpless, choked, and was given a glass of water.

"All right," said the Psychologist, modestly, "I'll just call it talent. We need something better—genius. Say an annual quota of geniuses."

"I think one will be enough to go on with," said the Chairman, and the Psychologist went warm inside at this swing in his favor. "We don't quite know what we're doing. We might go on the wrong lines and raise a military genius like Alexander who'll want to conquer the world over again. Or a criminal genius. We might raise—incidentally, how do you propose to go about raising one, anyway?"

The Psychologist told them. They didn't like his proposals at all, but they had to admit there was no other way to do it. "We haven't got the right," the Chairman said, tugging doubtfully at the lobe of one ear.

"Perhaps not. But to benefit the race means that you benefit yourself as well. He will look at it like that."

"Will he? Somehow I don't think he'll thank us."

"Then at least we can thank him. The whole world acknowledging a debt of gratitude to him, following his lead, looking up to him as a superior being—as it will eventually—will surely more than compensate him for his

earlier trials. We've got to be tough with him at first, but it's for his good—and ours. He'll understand that, and thank us after all."

"I hope you're right," said the Chairman. "I'm still not convinced myself. However, we'll put it to the vote. Those in favor?"

The Psychologist got his permission to experiment—by one vote.

"Who would you like as your assistant?" asked the Chairman.

The Psychologist named the Biologist.

"Oh, for Pete's sake!" said the Biologist. But they talked him into it.

STATE NURSERY 214.A. was a long, thin building of only one story laid like a ruler across soft green lawns. The first State Nurseries had been several stories high, but after five cases of small children falling either from upper windows or the roof garden, the rule was now one-story Nurseries only. The lawns were constantly watered and kept soft, after nine cases of children falling over while running and grazing their knees on the sun-baked ground.

The State Nurses were practically omnipotent Amazons. They bent the knee only to the committees of the Administration—and they were working hard on their knees to get as many State Nurses on the committees as possible.

Ten miles to the north of S. N. 214.A. was the old spaceport serving this area, dating, like the others, to the time previous to the last World War. The final War had decimated the population in many ingenious ways until the remnant, having forgotten what the War was about, had become quite listless about killing and decided to take things easy and let World Control run their lives.

World Control had made a pretty good job of it. *"Do unto others..."* worked very smoothly once you got everybody playing and it wasn't considered smart any longer to get away with something at the general expense.

The State Nurses of S. N. 214.A. got the adjacent spaceport closed down because the roaring of the rocket-ships disturbed the slumber of the infants in their care. And somehow all the other spaceports got closed down, one by one, soon afterwards. It may have been that people thought that the State Nurses disapproved of the pleasure trips to the planets, and they retained from childhood a healthy respect for the wishes of the Nurses.

Or it may have been that the people realized that there wasn't much pleasure in the trips after all: you had to endure a lot of space-sickness merely to get to some place which was either uncomfortably hot or cold, where there was too much air or not enough and you had to spend your time in a bounded space-port or a cumbersome space-suit, or there was either glare or gloominess, gravitation strong enough to make you crawl or weak enough to upset your digestion—in fact, discomfort wherever you went.

And Pluto was off limits; to get there meant inevitable death.

By far the most beautiful—and comfortable—planet in the solar system was Earth. It had everything: air, gravity, temperature, light, all just right—it might have been made for you. Therefore, why leave it? So nobody did nowadays, and the spaceports and the rocket-ships in their launching cradles stood gathering rust and dust.

●

THE PSYCHOLOGIST and the Biologist passed their local spaceport without a thought on the way to S. N. 214.A., and presently they were walking slowly over the pneumatic floor of a ward at the Nursery, bouncing slightly but ridiculously as they went, earnestly studying the rows of cots and the babies within them.

The Chief Nurse followed a little distance behind them, grim and disapproving. She could not stop them: they had the endorsement of a committee of the Administration, and she was not on any committee—yet.

"Lord!" whispered the Biologist, uncomfortably conscious of the hostile regard from the rear. "I can't tell the boys from the girls!"

"You must have missed a class in your Biology course," muttered the Psychologist. "That row there are all boys, I—er— am informed."

"It must be a boy?"

"Good heavens, yes! We can't risk anything in the shape of the porpoise close behind us. Besides, males have four ounces more brain than females."

They walked slowly along the male row. Some babies watched them gravely. Others found it more interesting to lay on their backs and kick, suck their toes, eat their toys, or just sleep.

"D'you think the bald ones are the more promising?" whispered the Biologist.

The Psychologist began to study the question seriously, then suspected facetiousness, and then became suddenly angry with the Biologist, the Juggernaut behind them, and his own indecisiveness.

They were approaching a little brown-eyed baby who seemed very pleased with himself and with them, and who was saluting their coming with a red rattle and delighted laughter. The Psychologist was not in a mood to be laughed at: on a sudden impulse he swooped on the child and snatched its rattle away with one swift, rude grab. The baby was justifiably startled. It looked blank and surprised for a moment, regarding its tiny, empty hand and then the Psychologist. Then its lower lip protruded and it began to cry.

"Uh-her-her-hooo!"

The Psychologist felt committed. "It's got to be this one now. Infantile emotions already fixed," he whispered urgently, as the shocked Amazon hurried up to them. She had too much respect for discipline to protest against the representatives of the Administration aloud, but she said it all with her expression.

"Er—we'll take this one," said the Psychologist, trying to sound pleasant but sounding nervous.

"Very well. I'll wrap him up," said the Chief Nurse, trying not to sound hostile but sounding hostile.

"Lord!" said the Biologist again, but this time to himself. "Almost as if he were shopping!"

●

SO THE baby, Bruce Lion, went to a new home—the Psychologist's apartment in the State Library Building, just across the way from the Biologist.

Here his life became a special kind of hell lorded over by two most reluctant demons, the Psychologist and the Biologist. But having started the experiment they were determined to see it through, and developed a sort of ruthlessness which they were able to switch on and off. It was always on when Bruce was around.

He grew to be a pale-faced boy, thin, small, and very short-sighted. A pair of spectacles had to be made for him. They were the only spectacles in the world of 2443 A. D., and, indeed, the only pair to have been fashioned for three hundred years. He was systematically reminded of this fact, that he was unique in his faulty vision, and he was made to feel that it was somehow his own fault through some unnamed transgression.

His physique was sneered at; he was called unhealthy. (So he was unhealthy, and his physique poor: it had taken a lot of research on the part of the two scientists to find a diet im-

perfect enough for him to attain these states, the right balance of vitamin deficiency which would not at the same time impair his brain.)

The Psychologist was exceptionally subtle in arranging Bruce's repressions and neuroses. He based his work on research into early Victorian family life; Bruce was taught that sex was shameful and pleasure sinful. Temptations were planned for him, and when he yielded to them he was chastised.

The principles of the State were withheld from him. Any ideas which he expressed were mocked, and speaking was discouraged. He became more and more reserved.

One day he asked the Psychologist, hesitantly, fearing the inevitable rebuff: "Why am I d-different from all the other children I see from my window?"

The Psychologist seemed deaf. He was studying a notebook.

The Biologist was sitting doing nothing, but he also had been smitten deaf.

Bruce repeated his question, falteringly, with the slight stutter he'd developed lately.

The Psychologist looked up with an air of wondering who was responsible for making such unpleasant noises. "What is it, Bruce?" he said, impatiently.

Painfully, the boy stumbled through his question for the third time.

"H'm," said the Psychologist, and glanced across at the Biologist. Then they both gazed at the boy with a mixture of condescension and contempt which made Bruce feel very small and miserable and quite unwanted. "I haven't the faintest idea," said the Psychologist, coldly. "Have you?"

"N-No."

"Does it matter?"

The boy turned away and didn't answer. Two big tears began to roll down his cheeks.

The Psychologist returned to his notebook. He was going over his notes for tomorrow's program:

8 a.m. *Hide soap and blame B. for not washing properly. Call him sinfully dirty.*

9 a.m. *Remind him that his complexion is disgusting.*

10 a.m. *Remind him that he is undersized.*

11 a.m. *Make him bring the heavy suitcase from the hall, and comment on his feebleness.*

The notes quivered and went blurry before his eyes. He jumped up. "Oh, quit blubbering, Bruce—real boys don't snivel," he said, roughly, and beckoned covertly to the Biologist to follow him. "We're going out for an hour. Try not to break all the furniture while we're gone."

Two months ago, Bruce, through his shortsightedness, had tripped and fallen upon a fragile Japanese table and broken a leg of it. He was not allowed to forget it.

OUTSIDE the door, the Psychologist hurled the notebook out of an adjacent window with a choked exclamation and knuckled an eye. "Real boys don't snivel," said the Biologist, sniffing a bit himself.

"I'm not snivelling!" said the Psychologist, angrily, fumbling for his handkerchief. He blew a mighty blast.

"Where are we going?" inquired the Biologist.

"I don't know; I just had to get out of there quickly."

"Come across to my place. We can pick up the notebook on the way."

"Damn the notebook—I never want to see it again. I'm through with all this—I can't stand any more of it. I'm not made of stone."

It was the Biologist who led the way to his apartment, poured the stiff whiskies, and started the discussion. "We can't abandon him, hopelessly warped, now. We've got to win him that consolation of developing some talent far above the general level."

"But can we? Supposing he hasn't a rebellious spirit? Supposing he just

takes refuge in the dream world to which we've driven him and stays there? How could we ever make amends?"

"We could give him love—I mean, we shouldn't have to hide it any longer."

"I feel I should go down on my knees to him and beg forgiveness."

"So do I; it may come to that."

"Heaven only knows what it'll come to," said the Psychologist, gloomily. "He could turn out to be a political genius, another Machiavelli, pulling strings to achieve a dictatorship—a useless anachronism, who'll fail because there's not enough moral ignorance for him to build on."

"I don't know—he could start with us."

The Phychologist drained his glass at a gulp and refilled it. "Well," he said, presently, "we're not achieving anything by wallowing in self-reproach. We're heels—let's accept it and hope for better things for him. He's got good chances. He could become a musical genius or a literary one, a poet or a great engineer, a painter or a sculptor, a chemist or a mathematician."

"Or a Psychologist."

"Yes, poor devil," said the Psychologist. The whisky began to glow in him. "Y'know, he's got good chances," he said, again. "It's not unhopeful—he's spending a great deal of time in the Library lately."

For, in one direction, there was no real frustration for Bruce. Although the two scientists actually told him very little, the way to information was left temptingly open; he was allowed the run of the whole State Library, the State Laboratories, and the art studios, music rooms, workshops, and gardens in the vicinity of the State Buildings. He had access to everything which might fire his imagination and his ambition, and by making his home life unpleasant the two men drove him out deliberately into this more promising environment.

He wandered around these places, a lonely little figure, observing, pondering, sometimes daring to ask questions. The workers of all kinds had been instructed by the Administration to give him any information he required, but they must do it impersonally, and so far as possible avoid getting into general conversation with him. He must be made to feel "different."

Finally, he divided his time between the Library and the Laboratories. And there he grew to the height of exactly five feet and the age of eighteen, when an important thing happened to him.

●

TO NO. 6 PHYSICAL Laboratory came a pretty girl assistant. Her name was Freda, and she was by nature both very friendly and very conscientious.

Although she had been advised by the Administration to give Bruce any professional help he required, but not to fraternise, she was too young and simple to prevent some of her natural friendliness showing through the assumed insular manner. Kindness of any sort was so rare in Bruce's experience that he sensed it at once. He began to think up pretexts to seek her company. She made no objection.

The Psychologist and the Biologist noticed the attachment, and kept an eye on it.

Then one night Bruce couldn't sleep at all. He could think only of Freda, her smile, her gentleness, her soft, warm voice—and the faint fragrance of her. He walked up and down his little bedroom most of the night, and he stood at the window watching the sun come up. He was at No. 6 Physical Laboratory the moment it opened.

When he saw Freda his heart leapt. He gulped. "Freda," he blurted. "I c-couldn't wait—I had to see—er— could you l-lend me Taft's *Electron Paths?*"

She reached it down from the shelf where it had been in plain view.

"You could have got it from the Library, which is much nearer for you," she said, with a smile.

Bruce went red and could think of no adequate reply. At which moment the Biologist came in to borrow a chemical balance. He said "Good morning" pleasantly to Freda, Bruce being seemingly beneath his notice, and asked her for the balance. As she searched around the lockers, Bruce watched her every movement intently.

Just as intently, though more covertly, the Biologist watched Bruce.

Afterwards, he went straight to the Psychologist: "That attachment Bruce had for the new assistant in No. 6 has become the real thing: he's head over heels in love with her."

"It had to happen sometime," said the Psychologist. "I've been both looking forward to it and dreading it. It's our biggest opportunity, of course. The sexual urge is the strongest of all. If we frustrate it, it should be diverted to furious energy in some kind of work. If he has any talent at all, now's the time to give it the biggest fillip it'll ever get."

"I agree that it's our biggest chance to thwart him yet. But, look—let's make it the last chance, huh? I feel that with this we'll have done that boy just about all the damage we can do. If he can stand any more, I'm pretty sure that we can't. If there's a negative reaction this time, let's call the whole thing off, and do everything we can to restore his self-respect—and our own."

"Thanks," said the Psychologist, with relief. "You've said it for me. This is the last test; ask the girl up to your apartment, where we can have a quiet talk with her."

●

THE PSYCHOLOGIST came straight to the point. "Freda, do you know of Bruce's feelings for you?"

"Well...I know he's fond of me, in a way. I don't quite know what way. He's so shy and reserved; he's never said anything that's given me a clue."

The Psychologist looked at her narrowly. "Have you any sort of feeling for him?"

She shifted a little uneasily in her chair.

"I...like him. I'm very sorry for him; it's not for me to criticize what you two—what the Administration has done to him, but I can't help pitying him. I feel as though I'd like to—well, to mother him."

"H'm," commented the Psychologist, as though this were most regrettable. Actually, he was at a loss for further comment.

The Biologist helped out. "Supposing he asked you to marry him, Freda?"

"I don't know," she said, biting her lip; "I'm just not sure."

"But you might accept?"

"I might. Yes, I might."

"The Administration forbids it," said the Biologist, heavily. "Bruce is not an ordinary citizen. He is a scientific experiment in the cause of progress for us all. If you marry him, you'll spoil the experiment we've worked on for years, you'll stand in the way of mankind."

Freda, the kindly human being, battled with Freda, the conscientious citizen. "You may be right," she said, slowly. "On the other hand, you may be wrong. What right have you—"

"What right have *you,*" interpolated the Biologist, swiftly, "to even consider endangering the well-being of the race? Quite apart from your robbing mankind of the benefits of our experiment, I must remind you also that Bruce is the only constitutionally unhealthy person in the world, and as a Biologist I can assure you that any children he may have would likewise be unhealthy. He could start a stream of unfit descendants which in time would broaden and taint the health of

the whole race. You think we are unfair? I ask you to consider whether it would be fair of you to be responsible for creating many others suffering from his inherited disabilities."

Freda's wrestle with her conscience came to an end. She was naturally a maternal person, she would need children of her marriage. Children which, unlike most mothers, she would not hand over to the State Nurses, but rear herself. But she did not want to blight those children with the handicap of ill-health in a healthy world. "Very well," she said at last. "I take it that you'll want me to leave this area?"

"We have found a better post for you at the State Laboratory at New Washington," said the Psychologist.

New Washington was five hundred miles away.

THE BIOLOGIST, in a small room of the No. 6 Physical Laboratory, was in the middle of a chemical experiment. He was after a new preserving fluid for specimens, and the air was pungent with the odor of steaming spirit. The Psychologist, because he had nothing worse to do (he had neither recovered his notebook nor resumed his systematic baiting of Bruce), was sitting on a bench watching him.

The door opened suddenly, noisily, and violently—because it had been kicked open. Bruce blundered in. He looked paler than ever, because he was white with anger. "You two!" he exclaimed, glaring at them from behind his glittering lenses. "You've sent Freda away!"

"I—" began the Psychologist.

"She's just gone. But she told me before she went. I'm constitutionally unfit to marry, I'm a danger to the race; I might pollute all you noble beings."

"We—" began the Biologist.

"You told her all that!" shouted Bruce, in fury, clenching and unclenching his fists spasmodically. "What I am, you have made me. You have deliberately mishandled me since I was a child. Why? Why?"

"We—" began the Psychologist.

"Why am I so small and puny? Who made me like this? Why have you never helped me? Is there no kindness in your hearts?"

"We—" began the Biologist.

"What have I ever done that you should treat me like this? I have never harmed you. What curse has been laid upon me? Why have you gone out of your way to frustrate me in every possible way?"

His hot gaze darted from one to the other of them like a sword.

"Science—" began the Psychologist.

"Science!" Bruce's white face twisted with scorn. "Oh, Science—how many crimes are committed in thy name! You wretched, miserable, black-hearted, superior know-alls! You treacherous apes!"

The Psychologist got down from the bench.

"Bruce—" he began, firmly.

"I won't stand it! I won't stand it!" screamed Bruce, diving forward. He plucked a steaming retort from the very heart of the chemical experiment in progress. It came flying towards the two men, trailing appendages of rubber tubes. It hit the wall just above their heads, and exploded. A dark stream of acid ate its way rapidly down the wall. Deafened and cut, the two scientists skipped hastily away from it.

Bruce thrust at an empty carboy on the bench. It tottered and then fell to the floor with a tremendous crash. Without pause, Bruce grabbed up a lighted Bunsen burner—the rubber tube parting with a snap—and hurled it at them. Its heavy base caught the Biologist on the elbow, and he yelped.

The gas hissed from the broken tube, and the Psychologist leaped forward to turn off the tap. A box of balance weights flew to intercept him, and did so—plumb in the chest. He grunted, but got the gas turned off.

With a sweep of his hand, Bruce shot a row of bottles off a shelf to smash in the sink, and a wild but successful kick demolished a small, glass-sided cupboard.

The door slammed behind him.

His voice receded down the corridor, and it was hoarse with rage. "I will go my own way! No one shall stop me! *No one!*"

Silence.

The Biologist rubbed his elbow. A trickle of blood ran down his temple from a cut on his scalp.

"Phew!" said the Psychologist, picking a glass splinter from the back of his hand. "He's got a rebellious spirit, all right! I think we shall have our genius."

AFTER THAT, Bruce Lion avoided everyone. He asked no more questions, he spoke to no one; he ignored everything the Biologist and the Psychologist said to him.

He spent most of his time in the State Library, poring over books, and filling books of his own with endless notes. He always seemed on edge and in a hurry, and he developed a feverish, jerky little walk.

Sometimes in the Laboratories he carried out experiments which were incomprehensible to the professors there. They could not discover what he was after, and he did not enlighten them.

A year later, the Biologist said to the Psychologist: "I wonder when he's coming out of the sulks?"

Another year, and the Psychologist said to the Biologist: "We went too far, after all. We've driven him in on himself altogether; he's shut himself off from the outside world and locked the door."

Another year, and the Biologist said to the Psychologist: "What is he up to? I can't make head or tail of his experiments. Sometimes they're chemical, sometimes optical, and he spent all last week operating the cyclotron. What's it leading to?"

Another year, and the Psychologist said to the Biologist: "This can't go on. I've not heard him say a word to anyone in four years. Is it childish obstinacy—or singleness of purpose? If purpose, then *what* purpose? We've got to find out. Circulate instructions to all assistants to watch his every movement and send in daily reports. I'm beginning to fear we haven't got a genius, after all, but only a clinical case."

A Library assistant brought them the first clue: some sheets of calculations in Bruce's nervous scrawl.

"He left them shut in one of our books," said the assistant. "Forgot 'em, I guess."

"What book was it?" asked the Psychologist.

"Taft's *Electron Paths*—he's always borrowing that one."

The Psychologist studied the calculations, and then passed them silently to the Biologist. He jerked his head to dismiss the assistant.

Presently: "It all means nothing to me."

"Nor me," said the Psychologist. "Let's take 'em to Charlie Hurst."

Professor Hurst was just about the best mathematician in the country, and his all-round knowledge of applied science was unequalled. He scrutinized Bruce's scribblings; he went through all the sheets, then back to the first and all through again. Then he looked thoughtful.

"Well, Charlie?" said the Psychologist.

"Frankly, I'm puzzled. From the scattering of physical symbols, one would say it was a problem in physics —most probably atomic physics. But many of these symbols appear to be Lion's own. There are less accepted symbols than strange ones. Yet—it's most odd—there's a certain familiarity about the whole thing. I can't place it... I don't know: either this concerns work beyond our present knowledge of physics, or else, as is more likely, it's an equation in cipher."

"Looks like it *is* something in atomic physics," said the Biologist. "Bruce had left it in Taft's *Electron Paths*."

The Professor raised an eyebrow. "So? Well, leave it with me. I'll study it and let you know if I get an inkling of anything."

●

THE NEXT day he came chasing round the Physical Laboratories after them. He was in a state of great excitement. He was calling across the benches to them before he got to them. "I've got it! I've identified that equation!"

They let him get his breath back.

"It's the Millan-Thorne equation on electronic orbits," he got out. "Only it's done in cipher, with the usual symbols replaced by others."

"What, that check on Voricher's work?" asked the Biologist, catching some of the excitement.

"What's all this?" asked the Psychologist, who wasn't well up in mathematics.

The Professor said: "Put baldly, Voricher did some chance experiments with electrons, and got a definite repetitional effect. But no one could find a way to check it mathematically. Millan and Thorne managed part of it —about half. But they couldn't lift it onto the second and final stage: they were stuck. Nor has anyone since got any further."

"Has Bruce finished it?" asked the Psychologist, eagerly.

"Oh, certainly. He's changed symbols again for the second stage—it's a most complicated cipher, and I've not broken it down entirely. But what I got of it was sufficient to give me a glimmering of his method, and suddenly I saw my way to the result. I'm afraid I've gone a longer way round to it than he has: he's obviously taken some short cuts beyond my powers. He must be a mathematical genius."

"A genius!" breathed the Psychologist, and gladness flowed through him like a warm spring.

The Professor said soberly: "He has a mind which must open up for us whole new fields of research. I think one might say Science is reborn. I must congratulate the pair of you on the success of your long and patient experiment: it should prove of the greatest service to mankind."

"The congratulations are due to Bruce, not to us," said the Biologist. "All this came out of his suffering. We must go now and tell him what we have so often ached to tell him, but dared not: that all his suffering had a point and a worthy end. And now, thank heavens, we can prove what we say."

"If I may, I should like to come with you," said the Professor.

"Of course."

●

THE THREE of them went in search of Bruce. He was in the first obvious place, the Library, sitting at a desk in a secluded corner with a tall pile of books beside him. He was writing rapidly and did not look up as they approached. They took the spare chairs by the desk and seated themselves around him, a little uncomfortably. Bruce ignored them.

The Biologist coughed. With something of an effort, he said: "Bruce, we are here to apologize to you."

Bruce wrote on. He had changed a lot in the last four years, and looked much older than he was. He had a de-

cided stoop, a permanent frown had cut premature lines in his face, his brown eyes were both more sunken and more bright. He exuded restlessness.

The Biologist tried again. He recounted how the Professor had discovered that Bruce had completed the Millan-Thorne equation. He said that Bruce's unusual mathematical ability was no accident, but part of a long-standing plan which he and the Psychologist had forced themselves through.

"We've never personally meant you any harm, Bruce—far from it. Ours was a bitter course, and we took it because it was the only course. Geniuses do not flourish in cotton wool. We had to be cruel to be kind, knowing the end would outweigh the means. You see, our plan—"

"I know all about your plan," interrupted Bruce, rudely. His voice creaked from disuse. "I know all about many things now. For instance, the ethical principles of this civilization which you kept from me and betrayed. *'Therefore all things whatsoever ye would that men should do to you, do ye even so to them: for this is the law...'*"

"It was in the cause of mankind!" exclaimed the Psychologist.

"It was in the cause of Science and knowledge!" exclaimed Professor Hurst.

Bruce glowered at them. He said, gratingly: "So you think the rights of civilization to knowledge override the rights of the individual? Very well. I can assist you; take this very problem I'm working on."

He tapped the sheets before him. The three men leaned forward eagerly as though drawn by wires. "It's a calculation of the surface tension of the sun. I'm comparing it with records of observations taken over long periods. Professor Hurst can confirm that every star reaches a phase where it becomes a nova. The surface tension slackens off, and then there's a sudden collapse of that outer surface. The volumes of hydrogen falling into the immensely greater heat of the interior are transformed immediately into helium. There's a tremendous flare-up; the star becomes a great exploding bomb."

"Well?" said the Psychologist, anxiously.

"Our sun is due to become a nova—soon. And when it happens, this Earth, together with all the inner planets, will fizz and vaporize like a blob of spittle in a furnace. From my calculations, it's due to happen almost any time now. For my own curiosity, I'm working out just *when*. As you gentlemen are so eager for knowledge, I shall be happy to let you know when you can expect to be cremated. I think I can hit the time near enough to a day."

The Psychologist and the Biologist made queer ejaculatory noises but no sense.

"No!" breathed Hurst. "You are quite mistaken. You must be. I'm not ignorant of astro-physics, and the white dwarf which is our sun isn't likely to become a nova for millions of years yet. Thorne says—"

"Thorne?" said Bruce, idly, beginning to write again. "He's not an astrophysicist. He's a mathematician. So are you. Both in a rather elementary sort of way, I'm afraid."

"But—but—" began the Psychologist, but Bruce cut in: "Would you all kindly leave me now? I'm rather busy, as you see."

Slowly they got up, exchanging looks which were either blank or worried. They left the Library far less spiritedly than they had entered it.

●

WITH SCARCELY a conscious thought about direction, they arrived at the Biologist's apartment. The tenant automatically produced the whisky.

They had two stiff ones each before anyone said anything. It was the Psychologist: "I suppose, Charlie, he knows what he's talking about?"

The Professor shrugged. "He knew his way to the end of the Millan-Thorne equation. Millan and Thorne didn't, let alone myself—who am I to judge him?"

"It's a cheerful outlook," said the Biologist, reaching for the bottle.

"I thought you didn't particularly care whether you lived or died?" said the Psychologist.

The Biologist shivered slightly. "Well, I didn't exactly expect it—just yet," he said, jerkily, with a mirthless smile. "Why, I may not even have time to write my autobiography!"

The others didn't even smile mirthlessly.

"What's to be done?" said the Professor.

"Only one thing, Charlie," said the Psychologist. "Keep quiet about it. All of us. There may be nothing in it at all, but if rumors get around—well, it's going to make a lot of people unhappy pointlessly. There's nothing else we can do about it. No good calling the fire department—they couldn't put the sun out."

Still nobody smiled.

"If what he said is true, and he can verify it," said Hurst, "we're done. The great bulk of us, that is. A few may escape."

"How?" chorussed the other two, eagerly.

"The rocket-ships."

"Of course!"

"We can get to Mars," added the Psychologist. "Why, if there's time, all of us might get there. There's plenty of ships—"

He stopped, because the Professor was shaking his head. "Mars isn't far enough out," said Hurst. "We'd shrivel there too. There's only one planet at a safe distance, and that's the outermost."

"Pluto!" exclaimed the Biologist. "But that's a death-trap—Plutonic plague. Thank you, I prefer the quick, clean way. I've read too much about the final stages of that filthy plague."

"Pity our forebears never had time to find a way of killing that virus," murmured Hurst. "We've had all the time there is, and we've never bothered. It's probably too late now. A fine thought: man's only successor in the solar system—a virus!"

"What did you mean, then, about a few of us escaping?" asked the Psychologist.

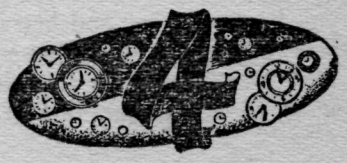
"I only meant that a few of us might escape for a time. We could take the ships out Pluto-wards, but without landing on the planet. Then we could get into a free orbit, and watch the show. After that, I'm afraid, we last only as long as the ship's supply of air lasts. There'll be no other home but the ship left to us."

"I still prefer the quick way," said the Biologist.

"And I," said the Psychologist.

"You'd be passing up an unparalleled spectacle of great scientific interest," said Hurst.

"Science?" said the Biologist. "What does Science matter now?"



THE PLACID surface of the civilization of 2443 A. D. was becoming ruffled. For, although the first three men who had been told of the impending doom had kept silent about it, their informant hadn't. Bruce Lion gave an interview to the press and told the world that its days were numbered; he added that it would not be long before he published the exact number.

Ripples of agitation spread when the Millan-Thorne equation story broke and Professor Hurst refused to confirm or deny it. The people reasoned, correctly, that he would have denied it had he been able to. And then the people began to realize that what passed for scientists in their world were no source of help at all.

These pundits could tell you about anything that *had* happened in Science, but they seemed unable to extrapolate any of this into the future. Nobody had thought much about the future, for to do so in a practically changeless world was pointless. The habit of living in the present was strong upon all, laymen and scientists alike. The future to them was an endless Today.

And now, suddenly, the future had reared up over them like a black threat. Tomorrow might not, after all, be another Today. Today's sunset might be the last they would ever see.

And even the State Nurses couldn't help them.

Their ancestors, inured to hardship, disappointment, and catastrophe after catastrophe, would have made a better showing. But this generation, product of the soft green lawns, watched over and shielded since infancy, feeling settled and secure in the best of all possible worlds, lacked the fibre to accept sentence of horrible death with equanimity.

Nervous disorders sprang up everywhere in a world which had been free from them for centuries. The people just could not face the fact that at any moment they might become ashes among the ashes of their paradise. And so they dodged it; they took refuge in amnesia, or hedonism, or drugs, or strange creeds and pseudo-philosophies.

The most widely supported of the pseudo-philosophies became known as the "Ignorance is Bliss" movement. Its leader said:

"Knowledge has caused more misery to mankind than anything else. The more you are aware of, the more you have to worry about. Man was happy in the Garden of Eden before he picked the forbidden fruit from the Tree of Knowledge. Do not let us repeat that mistake; let us refuse to know the name of the day on which this world is doomed. Bruce Lion must never reveal the date. For if he does he will destroy hope, and we shall be as people already dead. While there is hope, there is life. For all we know at present, this disaster may not happen for centuries yet. Let us ask Bruce Lion to keep his silence for the sake of us all."

So a deputation was formed, headed by the leader, and they approached Bruce.

"Sir, we beg of you, in the name of humanity, to abandon your calculations. Leave us at least the solace of hope."

Bruce regarded the little knot of men inscrutably. Then he said: "I have some advice for you."

"Yes?" said the leader, eagerly.

"I advise you all to leave for the Sahara Desert immediately."

There was a murmur of excitement.

"Is that a safe area?" asked the leader, even more eagerly.

"Yes, for you and your kind; you'll have to take special precautions, of course."

"Of course. Of what nature?"

"You all kneel on the sand, and with your hands you scoop out little holes just in front of you. Then you all bury your heads in the sand."

The leader stared at him, disappointed and puzzled. The eyes behind Bruce's thick lenses showed no trace of humor.

"Oh," said the leader, doubtfully. "Is there nothing else?"

"Only one thing more. Tomorrow I reckon to finish my calculations. I shall know the exact date then. *And so shall you!* Good afternoon, gentlemen."

They protested in dismay, and Bruce walked away and left them.

●

THE PSYCHOLOGIST and the Biologist heard about it.

"I thought he lacked a sense of humor," said the Psychologist, "but he seems to have one of a sort—bitter and sardonic. I'm afraid he's not really human. How he must relish getting

his own back on all of us like this! Well, I suppose we asked for it."

"You and I did—but not the others."

"I hold no brief for the others," said the Psychologist; "I must say I'm ashamed to belong to such a race of cowards."

"Say rather frightened children. It's not their fault. This is not a civilization which breeds men. The point is, what are responsible people like ourselves going to do about it?"

"What *can* we do?"

"If you had a child with *angina pectoris,* and you knew to within a day when he was likely to drop dead, would you tell him which day would be his last?"

"Of course not," said the Psychologist. "I'd let him play in his innocence as long as possible. I see your parallel—it's a good one. They *are* children, and we must do our best to see they're treated as children. We must argue it out with Bruce—"

"Do you really believe we'll move him?"

The Psychologist considered. "No," he admitted, "I don't. We're the last people to try it; he hates us down to the backbone."

"Exactly. There's only one person who might touch his heart: Freda."

"Freda? I wonder... Has she married?"

"No."

"I'll get on to New Washington, and have her come by air right away," said the Psychologist.

●

SHE APPROACHED him as he sat writing at his usual desk in the corner of the Library. "Bruce!" she said, and stopped as she saw that the little man was trembling. He kept his gaze down on his work, but his pen moved aimlessly over the page, producing nothing but meaningless squiggles.

"Bruce, are you ill?" she said, concernedly, and came beside him.

"No," he said, gruffly. He took off his glasses and wiped them. Only then did he look up. His face was expressionless.

"What do you want?"

"I want to make a personal appeal for you to keep your discoveries to yourself. Please."

"Oh. Another ostrich."

"I'm not thinking of myself. I'm thinking of the people at large. Do this at least for them."

"Why should I care about them? What did they care about me?"

"*They* had nothing to do with it. It was a committee of the Administration. You can't blame everybody; you can't hate the whole world because of an imagined injustice committed by a few."

"Can't I?" he said, grimly.

"If you do, it shows evidence of a warped mentality—a psycho-neurotic."

"That's exactly what the Psychologist and the Biologist were trying to make of me, wasn't it? Is it my fault if they succeeded?"

"You've been told a hundred times that their intentions were for the good of us all. Must you nurse a grudge forever? You above all people must know that there's only one thing in this world that matters—something more important than cold intellect, or impassioned art, or childish grievances. And that's kindness."

"Tell that to your two friends. They sent you, didn't they?"

"They asked me to come."

"And once they asked you to go. And you went. Do you always do as they ask—and never as I ask?"

"What did you ever ask me, Bruce?"

"I didn't put it into words; I was young and incoherent then. I've aged a lot these last few years. But I made my feelings for you plain. And you ignored me, and left me—to them."

And suddenly Freda saw through all his defenses, his grimness and sarcasm, his apparent preoccupation with work, to the lonely and abandoned boy who hid behind them. She put her arm

about him comfortingly. He didn't resist, but he wouldn't look at her. His pen traced some more meaningless designs.

"I'm sorry, Bruce. I was wrong; I shouldn't have let them come between us with their specious arguments. I thought they were right, but they were not. If you wrong an individual, you have done wrong, and all the talking in the world can't change its nature. The State exists for the individual—it's not the other way round. All good, all progress flowers from the individual, not from masses. They realized that, and they tried to create an individual who might flower for the general benefit. But they robbed you of your real individuality, made a warped, unhappy creature out of you. I don't care in whose name they did it—they were wrong."

He ignored all that. "Why didn't you ever come and see me? Or even write? I never had another word from you."

"I thought it was wrong to do so, and I hoped you'd forget me."

"Forget you! Not a day has passed since when I haven't ached to see you again."

"Never mind," she said. "We shall see each other every day now—until the last day."

He mused for a time. "F-Freda," he said suddenly, his old stutter momentarily returning. "W-Will you marry me? They w-wouldn't stop it now on health grounds—their own f-future isn't so healthy."

"Yes, Bruce. On one condition—that you tear up all these old figures and forget them. If we're to have a little happiness ourselves now, we can't make thousands of others unhappy."

Bruce picked up the sheets he'd been working on, ripped them across several times, and dropped them in the waste basket.

"I'll do more than that," he said. "I'll do my best to make them happy. I'll see if I can think of a way out for us all."

"Oh, Bruce! . . ."

AND SO BRUCE Lion married. The world got to know that he was working now on the salvation of all, and it calmed down considerably. Bruce Lion was a peculiar man, but he was a genius—the only one in the world. On his brain depended all their lives. They began to regard him as a superman, almost as a god. They referred to him, without irony, as "Our Genius," and his every movement was news.

Presently the news-seekers had a real story: Freda Lion was going to have a baby.

Happiness returned to the world.

"If doomsday were to be soon, he would never have had a child," people smiled. "He must be optimistic about things—I expect he's found the way to save us."

But the next story to break dispelled all the happiness.

By a million to one chance, something went wrong with the birth. Freda died—and her son lived. And Bruce Lion became something scarcely distinguishable from a madman.

He locked himself away with the child, and for months the world saw little of him. When it did see him, no intelligent word could be got from him. Those who attempted to speak to him were either ignored or made the victims of incoherent abuse. He went about the State Buildings with a face almost unrecognizable as his own: sometimes it was gray with pain or grief, sometimes it was set in lines of cold ferocity or flushed with wild rage. And sometimes it was the face of an imbecile, stupid, empty.

Later, he came out more frequently,

and then at length resumed his daily work in the Library or the Laboratories. But he remained unapproachable. He snarled at those who came near him, and sometimes when his experiments seemed to go wrong he would have fits of destructive frenzy. The Laboratory assistants began to dread his taking apparatus—he no longer asked for it, but took it. And each evening he returned alone to his apartment and his son.

Said the Biologist one day: "It's time something was done about Bruce. We know a person of his super-sensitive nature must feel grief more keenly than any of us. We know he idolized Freda, and she was his whole life. But...it can't go on like this. I'm beginning to fear that grief has unhinged his mind permanently. It's your job, you know. You should take him in hand."

"My dear fellow," said the Psychologist, "I might as well try to take a hurricane in hand. He curses me green every time I try to go near him. Only yesterday I stopped him and suggested that we have a little chat, and that I thought I could help him. He just sneered: 'I've had all I want of *your* help, thank you.' And when I protested, he rounded on me and said: 'Look, do you want me to save your precious hide along with those of the other creatures that crawl over this planet?' I said I supposed so. And he snarled: 'Then for heaven's sake get yourself and your mumbo-jumbo out of my way, and let me get on with my work!' You know, I think the child should go to a State Nursery."

"It's very difficult," said the Biologist, scratching his head. "Children can't be brought up in the Nurseries without the parents' consent. Of course, we know that ninety per cent of the parents give it—they're only too glad to be freed of the responsibility of the children. But we can't take children away from parents who can't bear to be parted from them. It's obvious that Bruce has transferred his overwhelming love for Freda to her child, he clings to him because it's all that's left of her. Well, I suppose it's all right. It's possible to smother a child with too much love, but at the same time it's very difficult to do so: children will absorb all the love you give them. The boy is visited by a State Nurse every day, and she reports that he's in excellent health. I'm afraid we can only leave things to take their course."

●

THINGS took their course in much the same way for several years. The only change was that gradually Bruce lost regard as the hope of the world. He seemed still to be working hard, but he made no reports on the progress of his work, and people began to fall again to doubt and despair. *Was* Bruce Lion still working on their salvation, or had he abandoned them? Or—as looked most likely from his behavior—had he gone out of his mind?

Then one day they all went mad with joy, because he announced that he thought he was nearing the solution of the problem of mankind's safety, and hoped to let them know in a week's time.

"It seems as if we're going to be justified, after all," said the Psychologist.

"Well, it's a comforting thing to believe, so let's believe it," said the Biologist.

At the end of the week Bruce asked for a meeting of the Administration. It was granted only too willingly. When this body of scholarly advisors and social managers had assembled in the Council Chamber, Bruce mounted the dais, still a diminutive figure, more stooped than ever, and with hair already graying.

"Gentlemen, I've called this meeting because I believe this is an historic moment. The sun's transformation into a nova is due at no distant date, and there's nothing I can do about stopping that. As you can imagine, it's beyond human power, genius or no gen-

ius. However, there's no need for us all to stay here to be cremated. We have the rocket-ships and we have the time to shift, in relays, the whole of Earth's population—thankfully, it's but an infinitesimal percentage of what it was before the Wars so drastically diminished it.

"I've heard it suggested that as the solar system provides no sanctuary, we should try to reach the nearer stars. Now, the nearest star is four and a quarter light-years away, and it has no planetary system. As far as we know, the nearest planetary system is nearly twenty light-years away. The best speed at which our rocket-ships can travel is ten miles per second. At top speed, therefore, it would take, at the very least, 300,000 years to reach that system. 300,000 years in a crowded rocketship with limited air! It's preposterous, of course. We've got to seek a lot nearer home. There's only one answer: Pluto.

"I know what you're thinking—Pluto's atmosphere is thick with a deadly virus. So is the atmosphere of this planet of ours: there are a great many kinds of bacteria floating in it fatal to anyone not immunised against them, as we are by long experience and adaptation. For years I've been experimenting with the cultures we have of the Plutonic virus, and now at last I think I have the answer."

HE HELD up a hypodermic syringe, and there was a great buzz of excitement. "Just a solution of certain chemicals. Easy enough when you know the answer—but endless trial and error was the only path to that answer. The virus gets into the bloodstream through the lungs, and there it flourishes—unless it's unfortunate enough to encounter these chemicals, which kill it instantly. I propose that when we land on Pluto, we shall all have prepared just this reception for the Plutonic virus. One injection of this preparation should provide immunity for a year, before the body completely absorbs it. And then, of course, it can always be replaced. I propose now to give myself the first annual injection."

He bared his arm, inserted the needle, and pressed the plunger. There was absolute silence as he rolled his sleeve down. "I did not remark on it," he said, "but there is a slight risk attached to this. It had not been tried on a human being before one minute ago. If I had mentioned it, it's probable that the Administration would have insisted that my life was too valuable to risk, and that some poor non-genius must be used as a guinea pig. Now, I happen to feel very strongly about that sort of thing. I myself was once the victim of an experiment, and because of it I seek no victims for my own experiments. The right of a civilization to knowledge does *not* include the right to risk or ruin an individual's life—unless the individual understands and agrees. Pasteur injected himself with his own serums. The discoverer of chloroform tried it on himself first. Unfortunately, there are so-called scientists who prize their own skins far too highly to risk them, and prefer to satisfy their curiosity with some innocent and helpless victim."

There was iron in this last jibe, and up in the public gallery the Psychologist and the Biologist wriggled and avoided each other's eyes.

"However, I don't want to sound dramatic," resumed Bruce. "I'm pretty sure that the preparation is quite harmless so far as human beings are concerned, else I should not have called this meeting. Now, about Pluto. I think Pluto can be made inhabitable. It's a cold and dark planet, we know, and will be colder and darker yet when the sun has died down to a smaller star after its blaze. But we have the secrets of atomic energy. We can crowd into a limited area of the planet and heat it and light it sufficiently for ourselves. It won't be as naturally beautiful as Earth, but we can create our own beauty. It's up to us to rebuild our sort of world. It won't be easy, but we can do it. If we

have the faith, we are people with a future."

There was a spontaneous outburst of applause at this. It lasted for several minutes, and Bruce stood there silently, his brown eyes alight behind his spectacles. And then a faint smile touched his lips.

"Good Lord, d'you see that?" whispered the Psychologist to the Biologist, while they both clapped hard. "He smiled! I've never seen him smile before—never!"

Bruce held up his hand and the applause died down. "All that remains to be done—" he said, and then suddenly he put both hands to his chest and flung back his head with a loud, indrawn gasp which made everyone jump. His face became twisted with agony. He teetered on the edge of the dais.

People scrambled up to get to him. "Freda! Fre—" he jerked out, and then pitched forward off the dais. He hit the floor, sprawling face-downwards, breaking his nose. But it did not matter. The only pair of spectacles in the world smashed into splinters. It did not matter—their need was finished.

The Chairman got to him first, and knelt beside him for a long minute.

When he arose, he climbed slowly onto the dais, and made a solemn announcement: "While we live," he said, "we have to honor the name of Bruce Lion. For he was not merely a martyr to Science—he died for us all."

●

NO ONE COULD discover just what killed Bruce Lion. Doctors examined the hypodermic he used, and found it empty. There was not a trace left of the chemicals it had contained—he must have injected every drop of the solution. Yet, when they performed an autopsy on his body, they found nothing foreign in the blood which responded to any tests they knew. What was this mysterious stuff which defied detection and analysis?

They hoped to get a clue from the five hundred and twenty-three notebooks which Bruce had left. Each book was crammed to the covers with close writing, but it was writing in a cipher which defeated all the experts, although they spent years in trying to break it down. In any case, they were looking for something which at the most could be only of partial help, for Bruce had made an error somewhere, either in the composition or the size of the dose. And who could succeed where he had failed?

The dark age of despair came clouding down again.

The scrambles for pleasure began again, but after ten years of gathering the rosebuds while they may (with one apprehensive eye cocked the while at the sun overhead, and a panic at every sun-spot) the people fell into a mood of dull resignation. They had exhausted their capacity for worrying, but they could regain the spontaneous happiness and peace of mind which had been theirs in the golden days when no sword of Damocles hung over their heads.

To them nothing seemed worth doing any more. What was the use of beginning anything, even the smallest task, if there was always this sizeable chance that one might never live to finish it, nor anyone left to take over from where one left off? It was a sullen, apathetic world.

●

The Psychologist was sitting alone in his apartment one day glowering through the window at the sunlight striking flaming color from the flowerbeds ringing the lawn. (Neither the flowerbeds nor the lawn were anything like so tidy as once they had been—only a born fool would spend his last days weeding.)

He was mentally composing a poem of blank verse, which he would never finish or write down because—well,

what was the use? The opening of it ran:

"O, treacherous Sun, with thy false promise,
Luring while waiting to strike.. "

And then suddenly the Biologist flung himself into the room. There was no other word for it. The door shot open and the Biologist came in like a whirling dervish. He tripped and spun and fell on his knees, and the sheets of typescript he was carrying flew up and then came floating down all over the room like great flakes of snow. He crawled around collecting them feverishly, his face alive with excitement.

"What on earth!..." said the Psychologist.

A shapeless wad of manuscript was thrust into his lap, "Read this," said the Biologist, urgently. "I've just had it from the author, before it goes to press. That's the first batch—I'll get 'em in order..."

THE PSYCHOLOGIST read. It was an untitled manuscript, a short book of not more than 30,000 words. But it was concise, tight-packed with information, data, and documented proofs.

It set out to make a point, and it hammered that point home with an impressive weight of facts and checked statements, verified calculations, proof by argument, proof by psychological instances and parallels. And the point was that Bruce Lion had never been a mathematical or scientific genius at all, but merely a great bluff.

It showed beyond doubt that Bruce had *not* solved the Millan-Thorne equation, but only made a cunning show of having done so: his sheets of calculations were a deliberate plant; he knew he was being watched. He'd just copied the first half of the equation from Taft's *Electron Paths*, supplanting the usual symbols by meaningless ones. The second half and the resolution were just a fake, a hodge-podge of pretended calculations which looked impressive but meant precisely nothing. Similarly, all the writings in the notebooks were gibberish: there was no cipher.

The credit for the completion of the equation should actually go to Professor Hurst. Trying to form sense out of Bruce's nonsense, the solution had suddenly occurred to him. He thought he'd been inspired to it by Bruce's symbols, but that was only a coincidence. The professor had spent a great deal of time in the past grappling with that same famous problem: his subconscious mind had been at work on it continually, and solved it, and divulged the solution while he was poring over Bruce's so-called calculations.

Bruce Lion was a born opportunist, said the author. *He seized on the prestige arising from that lucky chance to make the world cower before him. He donned a Hallowe'en mask, and in a solemn and awful voice warned the world of its impending doom. And because scientists everywhere took him at Professor Hurst's valuation, and thought that he understood things beyond their comprehension, they accepted his flapdoodle as gospel truth.*

(Here the author presented convincing astro-physical grounds for the sun's not becoming a nova for at least another hundred million years.)

He went on: *Why did Bruce Lion pretend to be a master scientist when he was not? The reason was that he was trying to compensate for the terrific inferiority feelings which had been inculcated in him, and he felt that he must be better at something than anyone else in the world, a champion. This, of course, is exactly what the experimenters intended. But there was one drawback; Bruce Lion had no natural creative talent whatever, nor any particular ability for inductive or deductive reasoning. He could absorb knowledge easily, but he lacked the ability to use it to discover new knowledge. He felt strongly, but was by nature insufficiently integrated to be able to express his feelings in any*

form worthy of the name of art—except, perhaps, one, which will be mentioned. Yet he was driven by this overpowering urge to gain respect.

In particular did he want the respect of one person, Freda Mann, a Laboratory assistant, for he had fallen in love with her. She was a conscientious worker, with a great respect for the Laboratory chiefs. Bruce Lion made up his mind that somehow he would become her boss, so that she would similarly look up to him. Which meant that he had to become a notable scientist—or appear to be one. To his poor uncoordinated mind, the appearance was as good as the reality—if enough people could be persuaded to believe in the appearance. Well, he succeeded in persuading enough of us.

But he did not succeed with Freda, because she was removed from his reach. This was the bitterest blow dealt him so far. He fell into a fury of hatred against the society which treated him as a pariah, which had filled him with frustration and bitter despair. He resolved to pay society back in its own coin, and he succeeded in full measure. One can hardly avoid the conclusion that society had reaped what it had sown.

HE GAINED Freda later, only to lose her again. So as not to lose her cherished respect, he had invented more mythical scientific research work, and the pose was now to be the saviour of the world. It is difficult now to tell how far fact and fantasy were confused in his mind at that time, but it is certain that later he went through whole periods when he could not distinguish them apart. Freda's death almost completely unhinged him. For years afterwards he lived in the twilight world on the frontiers of insanity. And at last he decided that without Freda life for him was no longer worth the living.

Because he was what he was, he planned to make his suicide a spectacular one, holding his audience to the last. His warped, approval-starved mind demanded an exit to applause. He got it, as we know—and he even smiled in that brief triumph.

He displayed a fair amount of ingenuity with his story of the immunisation to the Plutonic virus. Actually, the hypodermic syringe he used on himself was empty of anything except air. He deliberately injected a large bubble of air into his bloodstream, which, when it reached his heart, stopped it. He fell dead, an indetectable suicide.

Summing up, there is one talent which we must concede to Bruce Lion: he was an actor of no mean ability. Indeed, there is little doubt that this was his natural line had he followed it instead of deviating into science because of his love for Freda: it led to his desperately plying his only talent in entirely the wrong environment. One might claim that it was more than talent, that only an actor of genius could fool the whole world for so long. And his greatest role was his last one—The Martyr.

THE PSYCHOLOGIST finished the book, and sat for some time staring into space.

"Well," said the Biologist, "What do you think of it?"

The Psychologist roused himself. "It's terrific," he said, quietly. "Absolutely authentic, too—you can see that. This book is going to set the world free from its bondage to despair and dispel its sense of futility. We can all begin to live again. It's a masterpiece of research and documentation, analysis and deduction. The author is undoubtedly a genius. Who is he?"

"A fellow who had an unusual upbringing in childhood and an unusual parent. A parent whose fame towered over the boy like a Colossus, and made him feel very small indeed. A parent of unpredictable moods and frenzies, who was often quite mad and always overbearing and crushing. A parent who hated his son fiercely, and piled guilt upon his shoulders, constantly, unceasingly, because the boy's birth had killed the beloved Freda."

"So Bruce Lion hated his son," said the Psychologist, slowly, "and all the time we thought he cherished him."

"Luckily, he was of a tougher fibre than his father. He suffered, but he kept his balance—and he observed and recorded, for the sake of all of us."

"Well, we produced a real genius, after all," said the Psychologist, "even if we did have to take the long way around..."

The Biologist rubbed his eyes. "I wouldn't be too sure. I wonder if we haven't been going at it from the wrong angle. We found frustration as a common denominator in the geniuses of the past, so we decided that it was a necessary factor. ...But, what did we do to frustrate Bruce? *We just systematically applied every type of personality shock that was common to people in the old days.* They all got that sort of thing, to one degree or another—a few got as full a dose as Bruce did, although perhaps not with the same intent or precision."

The other man shook his head. "But then, how do you account for the fact that, without this nasty conditioning, Utopia produced no geniuses?"

"It has been occurring to me that sheer, overpowering benevolence can be damnably frustrating. We applied the knock-down method; perhaps Utopia is just smothering the kids. It doesn't warp them—it just anesthetizes them. ...You know, Bruce *was* a genius, in his own way—and all the great ones have been, in their own way. But we blocked off every healthy way he could express himself."

"But," objected the Psychologist, "what about Lion's son? He wasn't smothered with kindness, and he seems to have had a rough time of it, too."

"Rough—yes—but not quite as hellish as the rigorous, scientifically worked-out course we gave Lion. They're both geniuses—in *spite* of the frustrations... Do you think he'll dedicate his book to us?"

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The Masked Marvel was thrown against the ropes...

ISMAIL, THE OUTWORLDER

Ismail, the Outworlder, found that his reputation was a very convenient thing for lesser-known thieves...

NOVELET OF THE FUTURE

By Manly Wade Wellman

During the year 2867, recurrent arguments about the relative merits of the Terrestrial and Venusian science of self-defense brought about a contest of champions. Naturally, this was staged before sport-lovers of the Hightower Level of Pulambar...

—ARBITER (Pseud.), Hightower Chronicles of the 29th Century.

NATURALLY. For Pulambar is, as all the universe knows, the Martian City of Pleasure, unique throughout the habitable worlds with its two-mile spires and pinnacles atop, and its canals, cross-

Various critics have noted that a number of science-fiction stories are little more than adventure, detective, etc., stories in futuristic settings. Now this is true, to a certain extent, and it is also true that this present story could be re-written and set in a contemporary background. But what some of the critics overlook is that, in many instances, this type of story's background has a peculiar interest and fascination of its own. Such, we think is the case with Mr. Wellman's 29th Century stories, with their flower-headed Martians, frog-like Venusians, and Earthmen not dissimilar from those we know. So, reader, settle back and enjoy yourself.

way pools and gondola-motorboats below. The luxurious Hightower Level is expensive, and much of the Waterbrink district is creepy and even lawless. The Great Grapple, as the promoters called it, would be staged before telecast cameras boosting photosynthetic images to viewscreens clear to Earth, Venus and even the thriving colonies on the Jovian moons. But the contest itself took place before select, high-paying spectators at the Zaarr.

Zaarr, in slurring Martian, means "unattached". It was a dome-shaped chamber of silvery alloy, floating bubble-like among four tall towers in the sky above Pulambar. Each tower flashed a gravity-lock beam like an invisible girder to moore the Zaarr solidly in place. Inside, tables and stage had been cleared away to make room for a central roped arena and banks of seats. Those seats were crowded by Hightower sparks, brought by helicopter, short-shot rocket, sky taxi; admission by dear-purchased invitation. Terrestrials dominated, clad in rich silk-metal and glasscloud cloth and jewel net. There were almost as many froglike Venusians. Martians—petal-faced, with corseted bladder-torsos and metal-braced tentacle legs, simply but richly robed—were comparatively few, for Martians are not sports fanatics. One Martian, in a ringside seat, purred through his artificial larnyx to his Terrestrial companion.

She was slim but active-looking and healthy. At first glance a man of her own race might not think her strong jaw, straight nose and wide blue eyes lovely; at second glance he might find it hard to see or think of anything else. Despite her costly gaiety dress, she did not seem to belong to the sybaritic Hightower set. She looked thoughtful, efficient, like a technician or the chief of some government office.

"Look at them, my dearr Trroy," purred the Martian. "Ssoft, luxurrious—do they darre even watch violent constesstss?"

"That's what is wrong with sports today, Yaxul," replied Troy Fairdean. "Too few practise them, and too many watch and yawn."

"We arre not herre for pleassurre," reminded the artificial voice. "Rreporrt frrom underrcoverr iss that Issmail—Starrwick Issmail—will be herre tonight. The League orrderrss hiss arrresst."

"I know. Ismail, whoever he is, seems poison to the Martio-Terrestrial League police. Why, Yaxul?"

"He iss too much forr Pulambarr'ss law detail—"

"Because he fools and swindles the rich idlers and their police can't find him?" said Troy Fairdean. "Somebody with drag wants... Well, if he's here, we'll get him. But everybody in the audience was double-visoed and identified. Ditto every employee. Here come the contestants."

The watchers howled—most of them were intoxicated, by joy-lamp ray or Jovian *guil* or Venusian *samas* or *vana*. The Venusian champion slithered through the ropes, boomingly applauded by his fellows. His frog-body, banded black and green, was stripped naked, and torso and limbs writhed. Then a storm of Terrestrial whoops and yells as a figure bounded into the ring from the other side and cast off its robes—a sinewy body in trunks, all lean except in the shoulders and fists, its face and head shrouded in a sacklike mask of black silk-metal.

"They call him the Masked Marvel," said Troy Fairdean; "they've called Terrestrial fist-and-foot champions things like that for ages."

"We know him, of courrsse," nodded Yaxul. "Coke Paylon—to the League therre arre no masskss. I had expected a burrlier sspecimen—"

INTRODUCTIONS by loudspeaker were finished, and at a wave from the officials the contest began. The Venusian advanced, cautious and deadly as a big lizard. Mockingly he exposed his pale chest and abdomen, trained in gymnasiums so that they

were muscled-sheathed and almost as impervious to blows as the armor-plated rest of him. His wide mouth grinned, showing jagged teeth. One flappery hand darted at the masked Earthman, who sidestepped, jabbed with his left and missed. The audience yelled for action, and the two grappled.

"Hi!" chorussed the Venusians as they went down—the Masked Marvel undermost. But, before he touched the mat, he contrived to twist so that both fell together. At once the Venusian flowed over him, snaky arms and legs twining, tugging. There was a sudden pallor in the Masked Marvel's pinkness; he seemed to go slack—another trick. In what seemed the victory moment, the Venusian relaxed for a trice, and the trice was enough; his victim writhed free and rose.

"No Marrtian would have been duped," said Yaxul, conveniently forgetting the frailty of his people in hand-to-hand combats. "We rread the mind—even some of the Terrress-trrial mind—we ssee deceptionss—"

"The Masked Marvel's hurt," interrupted Troy Fairdean.

The fellow backed away, limping. He stooped and chafed a knee with both hands. The Venusian, pursuing, gurgled in triumph and reached low with both hands—

And the Masked Marvel's own hand darted, flattened like an axe-head. Its edge chopped toward the unguarded delicate throat beneath the shallow jaw, struck home; the Venusian's gurgle broke off in a choking cry, and the Terrestrial had him.

A flurry of legs and arms, green-striped and pink and a fall that with a greater than Martian gravity might have meant broken bones. Terrestrial hands were on the Venusian throat, throttling. Up shot two helpless green paws, clasped high in supplicating surrender.

Howls and protests; the Venusians deafened the room with cries that it was a trick—unfair—the Masked Marvel had simulated an injury; the Terrestrials yelled back that it was a trick indeed, clever and admirable. There might have been an impromptu group-fight on the floor, but for the jangle-note of the voice-magnifier in the ring. The vanquished fighter was being carried out, still in agony from his mauled throat, and the man in the mask stood straight and motionless and victorious.

Prralla, the proprietor of the Zaarr, was paying the Masked Marvel the victory-purse, a great sheaf of value-vouchers, and motioning him to the microphone. The hooded head spoke. "I'm entrusted with a message," said a muffled voice. "Greeting from Mr. Starwick Ismail!"

And the Masked Marvel caught up his robe. With a smoothness that did not seem hurried he vaulted the ropes and vanished toward the dressing rooms.

"Follow," breathed Yaxul to Troy. "If he had worrd frrom Issmail, he musst be arrressted and made to tell—"

The two of them weaved their way through the throng, found a closed door and a robot porter with a determination to keep them away; but Prralla himself hurried across, bent over the stamped bit of metal in Yaxul's tentacle-tip, recognized the authority it conferred, and ordered the robot back.

Beyond was a metal-walled corridor. They passed the portal of the beaten fighter's dressing room. A doctor had come, and the fellow's bruised throat was recovered enough, at least, to let him howl his pain and disappointment. Then they came to another room, and the beginning of the riddle's answer.

INSIDE were attendants and a burly, angry man draped in a

robe. He had just the sort of ineffectual moon-face that an athlete ought to hide—Coke Paylon, known professionally as the Masked Marvel.

"The door was locked, and he didn't open it," Paylon was snarling out. "He just stepped through, like a clown through a paper hoop."

Yaxul and Troy turned toward each other. To walk through solid substances meant the jealously guarded secret of the atom-shift ray, of which one—only one—had vanished, stolen, from the League laboratories. It had taken a master thief to get hold of that atom-shift; Starwick Ismail, naturally.

"Did he ray you?" Troy asked Paylon.

Paylon shook his head. "No. Said it would be too much of a nauseating, sickening experience for someone he hadn't any wish to make uncomfortable. I reached for him, and he took hold of my arm somehow—" Paylon grimaced. "He must have known that judo stuff the ancients had. Good job it isn't generally known today. I was helpless, paralyzed. And he tied me and gagged me, and here I lay while he put on my trunks and mask and robe and went out—then returned and was kind enough to ungag me so I could yell for somebody!"

"Who?" demanded Yaxul, a tentacle-tip on Paylon's big wrist. "Who wass he?"

"Who but Starwick Ismail?" blubbered Paylon.

Prralla had joined them. He was a-quiver with dismayed apologies. "I sshould have been morre vigilant. I mysself handed him the prrize—now it iss gone—"

"Look," bade Troy, pointing.

On a sofa lay a scatter of value-vouchers, their rectangular surfaces built into capital letters: *GOOD LUCK STARWICK ISMAIL*

There was a quick counting. About half the sum of the prize had been built into those letters. Yaxul wagged his flowery cranium.

"We musst follow him," he said. "He cannot have gone morre than a few ssecondss—"

"Yaxul," said Troy as they went out, "I've just had a flash-order." She lifted her wrist, with its bracelet-radio, tuned to a single and secret beam. "I'm afraid those few seconds were enough. There's been a robbery, some rich idler named Harvison. The League wants us on the case, because the evidence points to—"

"What wass sstolen?" demanded Yaxul.

"That's what is special. A book, that they say is rare and old and unique."

"Book," repeated Yaxul. "Harrvisson. Of course—and who elsse would ssteal it but Issmail himsself? Come on!"

STARWICK ISMAIL, The Outworlder—the man who considered the laws of every habitable spot in the System, and ignored or defied those laws that did not suit him—was already at the Waterbrink.

Hastening into the well-cut but unobtrusive clothes he had left in Paylon's room, he had strolled to a taxi-port, hailed a cruising autogiro and gone to a nearby tower-top. From there by elevator he went down to a song-salon, passed through it and descended by another elevator. It was in all less than a three-minute retreat. At ground level he walked along a side-alley, lest some shabby reveller see and recognize him and claim the various public and private rewards offered for his betrayal.

But in the alley he quickly spread an oily dark pigment on his face, swept his longish hair into a new arrangement and doused it with another preparation that changed it from buff-color to ginger-color. The rest of his disguise was ten times more artful, and consisted in changing his walk and manner. He was tall-

er than average, but now carried himself in a way to seem middle-sized and unimpressive. He slackened his normally strong features, that if left alone might have been even handsome. Contact-lenses might have altered his deep-set gray eyes, but he was satisfied simply to squint them into a new shape and shadow. Emerging from the other end of the alley, at the curb above a canal, he would not look like Ismail to the very few persons in the System who knew him well enough to recognize him.

A gondola hummed by, full of goggling tourists in the bright, many-colored overlights. Across the water giggled a throng of Terrestrial men and women—they had come out of a joy-lamp room, had absorbed more of the exciting light vibrations than were good for them. A taxi-flier dropped down and let out a passenger, a giant for height and breadth, his clumsy body dressed in silk-metal and his head muffled in a hoodlike cape, something like what the Masked Marvel wore. The giant paused a moment, as if thinking; then turned in the direction of Ismail.

"Drrink, ssirr?" spoke a Martian tout from an opened door-panel behind him. "Insside therre iss *guil, vana*—yess, and Terrresstrrial whiskey, verry sselect—"

"No thanks, Martian brother," said Ismail, watching the giant, who took a step toward him.

"Gamble?" suggested the Martian. "P l a y carrdss—indemnity, big sstakess tonight—"

"I'm fresh out of vouchers," demurred the outworlder, without any attempt at truth.

"Sshow? Magic—thought-transsferr exhibition—or you like prretty girrlss? Blonde, brrunette—"

The giant was stumping purposefully closer, with a sort of deliberate rhythmic stride that was swift without being graceful. Ismail did not mistrust his own disguise-attitude, but he turned to the door.

"All right, Martian brother. Inside, quick."

He entered, and the Martian closed the door, the automatic lock snapped.

INSIDE was everything Ismail had been promised, in most unpromising array. A stage held a stage pyschiatrist, Earth-born but Mars-educated, who drew gales of laughter from a knot of spectators by reading in one mind, then another, most embarrassing secret thoughts. There were girls, too, not one of them ugly and not one of them inviting. Overhead one of the joy-lamps that were almost standard equipment in Pulambar shed its rays—now golden, now angry red, now sickly blue, now green, now golden again—at mild but nerve-tickling intensity. And to one side were the gaming-tables. One or two faces lifted and stared as Ismail came to join the gamblers. They were Terrestrial faces, pale and puffy, men who had slackened off against the lesser gravity of Mars, men who had enjoyed themselves so long that enjoyment was beginning to be a bore.

Indemnity was the game at the table where Ismail gently elbowed in, a simple card game that interested chiefly because of sums quickly won and lost. Each player could take or refuse a card at each deal. Only those whose cards were of the same color stayed in. When all refused the dealer's offer, unretired players showed the total values of their cards, and high man took stakes and next deal. Ismail dropped some value-units and got into the game.

He lost his money the first hand, and the second; but on the third he drew good cards. He had trouble keeping those gray eyes hooded and squinted as he urged larger and larger wagers with each deal, and finally spread out his cards.

"Eighty-eight," he announced, "and nobody else need show his hand, because I know I'm high man." He gathered in the sheaf of vouchers, straightened them and put them away.

"You're a clumsy lot," he went on, gazing around at his startled play-partners. "Every one of you cheating, thumb-handedly and incessantly. All of you cheated at least twice, some of you four or five times. But I," and he turned away, speaking over his shoulder, "didn't have to cheat but once. I waited until I knew you deserved it. Luck, you fumbling fools."

"Wait," said someone. And, almost cordially, Ismail paused and waited. There was a little silence all around him, and the sensation of eyes watching—curious eyes of casual tourists, hostile eyes of enemies.

The man who had told him to wait was a heavy-bodied Terrestrial in what looked like space-flying clothes, the tailored coverall and imitation heavy magnetic boots and instrument belt that some persons wore as a fashion wrinkle. The man walked toward him, and behind the man lined up two others—a pinch-faced, slouching type who probably had left the Jovian colonies by specific and ungainsayable request of the colonial government, and a robed, silent Martian, undoubtedly the one who had been touting.

"I run this place," said the heavy-bodied one; "I don't like your talk, Mister."

"And I don't like your place, proprietor," replied Ismail. He stood easy, his hands low and slack. The three who approached all had weapons somewhere in their clothes, and hands or tentacles upon those weapons. "I never thought that crooked gambling would be wiped out," went on Ismail, "but I did think that crooked gamblers could take a look at a stranger and decide whether or not he'd fall for it, or stand for it if he did fall."

"Come into my office." The proprietor was close enough to mutter, and his muttering was harsh and baleful. "Don't give me any trouble, or we'll have to take you in there."

"You mean, so that you can hook back my winnings and flip me around out of sight and hearing of the visitors?" smiled Ismail. "No, and don't try to draw—"

All three tried to draw, but Ismail outdrew them all. He had the pistol-form atom-shift ray thrower with which he had gained entrance to the dressing room of Coke Paylon, and he hopped back and turned it on the trio.

Around them fell a soft, buttery radiance, and at once they stood tightly motionless, turning frosty-gray and dim, like a faintly developed group photograph. Next instant Ismail turned off the atom-shift, and the three reeled and staggered, back to normal density and complexion, but sickened by the brief but unstringing shock to the atoms of their beings. He laughed, and jumped at the door. It was locked, of course, and the Martian would have the solver-device to open it; but he flashed the atom-shift against the solid panel. The substance paled, looked like melted wax, and Ismail stepped through into the open, letting it harden again behind him.

He drew in his breath for another chuckle, but a clutch fell upon his wrist and another upon his shoulder, heavy and crushing as snapped-down jaws of mighty traps.

3

ROLAND HARVISON was as richly dressed as any Hightower spark, but his dried, high-craniumed face was a wise one and a worried one. "All I can say," he told the pair who had come into his luxurious living quarters, "is that the book was taken, and that I knew someone at League Police sub-headquarters who said he'd put you two on it. There was evidence that Ismail had taken it—a dropped chronometer with serial numbers that traced to him." He glanced at Yaxul appraisingly. "You didn't know about that clue, I take it. The Pulambar police carried the chronometer away with

them."

"No," Yaxul assured him gravely. "We did not know about the chrronometerr until you told uss."

"You're going to catch Ismail, though?" demanded Harvison. "The book he stole—if I were permitted to tell you what it contains—"

"We know that," Yaxul said. "Rrecoverred frrom an ancient laborratorry, wass it not? With the losst forrmulass forr weatherr contrrol, begun in the Twentieth Centurry when they sstarrted drry-ice experrimentss? And sshelved, and misslaid durring the Terrresstrrial Warr of 1988?"

"Oh, you know," growled Harvison, disapproving. "I suppose you League operatives have dossiers on everybody and what he does—even me. I was hoping to do something for the Martian government—conservation of water vapor, betterment of weather conditions, reclaiming of desert areas. Well," and the scientist's voice grew sharp, "why do you stay here? Why aren't you after this Ismail?"

"Oh," said Troy Fairdean, from where she sat apart in an armchair, "we *are* after him."

Harvison gazed. From her belt-bag she had taken two mechanical devices, small but intricate and unclassifiable, and connected them. Wires ran from them to a goggle-like apparatus, which she had clamped over her eyes. Sparks whispered, a faint, chorded rhythm began.

"We don't need the clue you mentioned," she informed Harvison. "We had another clue, even before your case was reported to us. As for Ismail, a—a Bloodhound is closing in on him."

"Bloodhound?" Harvison grinned expectantly, as if it were some sort of joke. "I see. The ancients used that figure of speech for a police detective. A human bloodhound, eh?"

"No," said Troy enigmatically, "not a human bloodhound, just a Bloodhound. When it finds Ismail, he's ours."

Her fingers touched a small keyboard, like the controls of a spacecruiser in miniature. She attached an earphone to her goggle harness. "Ah," she said, more to herself than to her companions, "maybe it's found him already."

●

AS SOON as that double clamp-grip fell upon Ismail outside the door of the gambling den, he knew it was too strong for him to break. He stood motionless, slack, seemingly helpless. "May I inquire," he said quietly, "what this is about?"

"You're under arrest," said a gentle, musical voice out of the hood that leaned above him.

"Why?" asked Ismail. "On what charge? Who are you?"

"Who you are is more to the point," rejoined the gentle voice. "Mr. Starwick Ismail, the Outworlder. You stole an atom-shift ray; you impersonated a professional athlete up among the Hightowers; you stole a valuable scientific secret from an accredited public servant named Toland Harvison."

"Guilty on the first two counts," admitted Ismail readily, almost lounging in that prisoning clutch. "Not guilty on the third. I know who Harvison is—who doesn't, who pays attention to the science telecasts? But I didn't steal his secret, or anything else that was his."

"Then why is it gone, and why did you drop your chronometer in his headquarters?"

"My chronometer?" repeated Ismail. "I didn't; I have it here." He moved his free left hand toward his belt-pouch.

The grips tightened on his shoulder

and right wrist, almost stunning him with their painful pressure. "Don't move," warned the voice, and its music had changed from violin-tone to stern trumpet-tone. "I'll crush your bones to putty."

"Ease off," pleaded Ismail, obediently relaxing. "Well, you've got me; where do we go together?"

"League police headquarters." The giant turned on those huge, shovel-shaped feet, as a monster searchlight turns on its swivel. The hands pulled Ismail around effortlessly, like a trailing banner fastened on the searchlight. At the waterside hovered the taxi-flier, as if waiting for them. "Bring along that atom-shift ray; be careful with it."

Into Ismail's mind, troubled but cool, instantly popped inspiration. He opened his fingers, and the atom-shift clinked on the plastic pavement-slab. His giant captor exclaimed angrily and let go of his wrist to scoop with one paw for the fallen treasure. In stooping, the other grip shifted on his shoulder, relaxed a micrometric trifle; that was enough.

A patch of silk-metal ripped from his arm as he wrenched, but he freed himself. With a great bound he crossed the pavement-slab, a twenty-foot jump with earth muscles overcoming Martian gravity, and dived.

The waters of the canal started right and left from his headlong impact. As he slid into their wet chill he swam strongly downward. Swimming was a skill fallen in decay in the Twenty-Ninth Century, but Ismail knew it, as well as many other outmoded things. He strove forward, then sidewise, then back in the direction whence he had come. Floating up, he bumped his head. He had risen under the shelf of the promenade. Turning over, he thrust his nose into the half-inch or so of air underneath the plastic slab, as air is contained under the ice of a frozen pool. Cautiously he breathed in a lungful, then paddled away on his back.

Monstrous, weighty feet clumped above him—the giant was trying to search for him. Again he swam down and away, then returned to idle under the slab, draw another breath, cock an ear out of the water to listen. The ton-heavy footfalls still sounded, but more distantly. He was going to escape. Once more he dived, and swam out to where light filtered down through open water. He could look up and see a dimly black silhouette crawling above him—the hull of a motor gondola.

He swam two powerful strokes and rose with the vessel between himself and the promenade from which he had leaped. A quick, clawing grab with one hand fastened on an ornament, studded with imitation jewels, that projected from the hull. As the gondola churned along, he let himself be dragged with it, just free of the blast-propellor that spun in the water dangerously close to his trailing feet. He lay low until the vessel reached a cross-canal and changed direction. Then he let himself rise and look and listen.

THE GONDOLA was full of music radioed from somewhere, and chattering laughter from its passengers. "Ahoy," panted Ismail.

Faces peered down at him. Terrestrials, naturally; Earth sent most of the tourists who thronged Pulambar. There was a pudgy young man with an incredible curled moustache, and two young women, artfully-rouged, groomed and coiffured. They squealed at him, but not in dismay.

"Come aboard, whoever you are," granted one of the women, and Ismail heaved himself up and in. The three passengers laughed, and the man offered a glassite container in which *guil* glowed with its peculiar phosphorescence.

"Drinks first," he invited, and Ismail took a swig. "Then introductions and explanations."

"Call me Ismail."

Another giggle from the nearest woman. She was plainly conscious and proud of her full, handsome figure, draped for revelation rather than

concealment, and her waves of hair were artificially tinted in alternate bands of dark and pallor. "Ismail's the name of a famous criminal," she protested.

"I like it," he pretended to fall in with the silly mood. "As for explanations—well, I left a place in a hurry. Someone insisted pressingly on explanations there, too." He sat on a bench, grinning and dripping. "I hope I don't have to take another bath."

"Probably you fought over a girl," suggested the other woman, and Ismail did not deny it. "You must be cold after that dip."

Ismail took another drink of *guil*, all he needed, and handed the container back. "Thanks, I'm warming up. Where away?"

"Oh, we've killed most of the night," said the woman with the banded hair. "At home—St. Louis—it would be two or three o'clock in the morning. We danced, gamed, went joy-lamping. We missed the telecast of that Great Grapple thing at the Zaarr, between the Venusian and Terrestrial champions." She studied Ismail, seeming to find him attractive. "Did you hear who won?"

"The Terrestrial," he informed her.

"Bravo for our side," chimed in the pudgy man, caressing his moustache. "Were you in the audience, perhaps?"

"No," said Ismail. "Not in the audience."

"Anyway," went on the band-haired woman, "we're going to Martio-Terrestrial League Headquarters. We have introductions—want to visit their police office. Maybe we ought to tell them we've captured Ismail, the notorious Outworlder." She simpered, "I've heard he's a charming, dynamic sort of adventurer."

"Not guilty, then," said Ismail. "Look, we're approaching the League entry—it's in that building yonder." As the gondola drew up, he stepped on to the promenade. His silk-metal had almost dried itself. "Thanks for the transportation and the company."

"You tore your tunic," said the band-haired woman, following him on to the slab. "Let me fix it."

FROM HER decorated belt-bag she took a vibra-weaver, such as any housewife would prize if only any housewife could pay for it. Touching studs and levers, she matched the dull color of the tunic, then rapidly filled in the torn gap. "There," she smiled, "isn't that better?"

"First-rate," praised Ismail. "You're very kind—or are you?"

"Why don't you find out later?" she cooed. "I'm lodging at—"

"Thanks for everything," he said quickly, and walked rapidly away from his befrienders.

He had seen a pair of Martian policemen sauntering out of the League entry. Long ago he had learned the trick of thinking behind a mental bulkhead to defy the thought-reading skill of Martians; but the very problem of such a defense might rouse their curiosity, might even cause them to detain and investigate him—

He jumped aside as though stung. In his hurry to get away from the Martians he had almost bumped into a towering, thick-bodied figure that clumped along with its head in a hood. There could not be two such shapes, even in thronged Pulambar. This was the giant who had seized him once, who would seize him again. He tried not to cower. And next moment the giant had strode past him, toward League headquarters.

Thankfully Ismail dodged around a group of revellers, gestured away an invitation to enter a hall where something new in intoxication—souped-up joy-lamp plus dream-dust in *vana*—was being offered, and out of sight of the giant and the Martian police and League entry.

"That big operative," he mused.

"When we first crossed trails, he seemed to know all about me. A credit to his training and superiors, in spite of his sweet, gentle voice. But now—he brushes by and lets me go. What kind of a brain does he have? Is it only good part of the time?"

Ismail touched his damp hair. It seemed to give him an answer to the riddle; the dive into the water had washed the pigment from hair and face, made him seem different. Then Ismail pondered other mysteries.

"I can understand the atom-shift being traced to me; after all, I used it up in the Zaarr; but how did he trace *me* after tracing *it?* And that bluff about my chronometer being dropped at Harvison's—"

He now had time to explore his belt-pouch. His hand groped in it, then came away empty; but no emptier than his puzzled expression.

"By heaven, it's gone!" he exclaimed aloud. "I did drop it somewhere—but where? Not at Toland Harvison's, unless Pulambar intoxicants have got to me and I'm moving around in dreams!"

AT LEAGUE Police headquarters, two of the Pulambar detail were grumblingly doing what their chiefs had told them to do. Into Yaxul's tentacle-tip they gave the chronometer whose serial numbers showed it to be the property of Starwick Ismail.

"Just how it'll give you his trail I don't see," said one. "I think you owe it to us to explain this Bloodhound talk."

"In good time, sirr," temporized Yaxul. "The Bloodhound iss experrimental ass yet. Laterr we will have interressting inforrmation forr yourr forrce, and perrhapss valuable aid. But now—will you parrdon uss?"

The two left, and Yaxul carried the chronometer to the inner office, where Troy Fairdean sat before a bench where her double device, with goggles and earphones, was busily in operation.

"If Ismail had only tried to keep the atom-shift, we could close in again," she mourned, and turned off the power. "What's that, the chronometer? It'll be a trifle of help, but not as much as if Ismail himself was carrying it. How about the old book Harvison lost?"

Yaxul shook his petal-fronded head. "Issmail will not carrry it with him. It iss hidden—well hidden, and not anywherre ourr rradio-finderrss can locate eassily. But trry thiss."

He carried the chronometer to the other end of the bench. There were numerous chemical supplies and gadgets. Yaxul tested with rays, acids, vibration-finders. As Troy joined him, he clucked in satisfaction.

"Ssomething individual herre." He showed her the end of a platinum chain, fastened to the stem of the chronometer and broken as if by a sharp pull. "Can we tune in on that?"

Troy bent to study, her wise face growing wiser. "We can," she said at once, "or the Bloodhound can. Let's get things started. And this time," she added as she gathered up her paraphernalia, "we'll stay close behind, and appear at the right moment, eh?"

"If Issmail sstill hass the brroken end of the chain, he iss doomed," purred Yaxul. "Not two timess can even he sslip away from the Bloodhound."

They were ready to leave, when a buzzer sounded. Troy picked up an earphone and listened.

"Harvison again," she reported. "He thinks he can give us anotherr lead to Ismail."

"Ignore him," urged Yaxul. "Come, thiss iss a ssurrerr trrail."

●

AFTER the League police operatives had left him, Toland Harvison scolded himself for losing so

much of his scientific calm; but self-scolding did not help. He was chagrined and worried.

His whole life of study and experiment had pointed toward aiding in the fight for the sort of weather needed on thirsty, desert-spread Mars. Harvison truly wanted to live and die in the service of a parched planet, to leave as his own monument a corrected season of rains and fertility each year. And to him had been entrusted the priceless, unique volume of lost Twentieth-Century lore that might help him make his labors a success until—

He poured himself a drink of Irish whiskey, his favorite comfort since the days he had crammed for college examinations. There was a click-warning, someone wanted to get in. He pressed a lever by a speaker-diaphragm. "What's your business?" he demanded.

"Starwick Ismail business," came back a voice, and Harvison touched another lever to open the door. In came someone in drab silk-metal, with tossed buff-colored hair.

"Well, so you people got him?" demanded Harvison expectantly. "Here, have a drink." He poured whiskey into another glass. "Where's the book?"

"What book?" asked his visitor, accepting the liquor.

"The recovered information on weather control," snapped Harvison. "The book Ismail stole and you recovered. Didn't you say you were here on business about him?"

"Oh, that book," said the other, sipping. "It is really in existence? I always thought it was a myth, like the gold-making process, until someone discovered it. But you actually had the information—and it was taken?"

"By Ismail," Harvison said angrily. "What kind of a fool are you to be in the League police?"

"I'm not a League policeman. I'm Starwick Ismail."

"You—"

"I came to get to the bottom of this charge against me. I never robbed you, and I'm going to find out who did and put the blame on me."

Harvison listened, and opened his mouth wide and soundlessly. Either this stranger was crazy—and Pulambar brought craziness to some Terrestrials—or he was sane and truthful, actually Ismail the Outworlder. Harvison fell back a step, his finger reaching for a buzzer-button. But the visitor came to him quickly and shoved him away. "No warnings," he said roughly. "I'm Ismail, all right. I got away from one League operative, and I don't want others complicating this. What about this theft? Speak up, Harvison, or I'll make you."

"You know about the theft," stammered Harvison. "I had the book in a—a safe hiding place. You got it; your chronometer was found there."

"Apparently it was, but I didn't leave it there. I lost it, or it was whisked out of my belt-pouch, and the real thief left it—clumsy false evidence. Where is your safe hiding place?"

"Don't you know, Ismail?" mocked Harvison. He was aware of danger, alone with the Outworlder, but not of fear.

"Know? Not just yet, but—" Ismail suddenly put out his hands to Harvison's shoulders. "Please don't resist, or it'll really hurt." He pressed nerve centers. Harvison yelped in pain, and his arms hung slack.

"You'll recover from that in a few minutes. Meanwhile, you won't act foolish, trying to grapple me or summon help. Now, as to your hiding place, let's see." He looked slowly around, but the tail of his eye was on Harvison. When the scientist flinched, Ismail stopped his turning. "In this direction? Come along."

HE TOOK Harvison by the back of the neck, not roughly or even contemptuously. His touch was more like that of a doctor helping a convalescent patient to walk. Urging Harvison with him, he walked toward the wall opposite, paused and studied its

surface. His hand on Harvison's neck detected another flinch, almost too slight to feel.

"Right about here, is it?" He strained his eyes. "I see something like a discoloration—a scorch. I understand—your hiding place opens when light rays are directed upon it." From his belt-pouch he produced a radio-flash and turned its beam on the place. The light glowed, and then a section of the wall, so cunningly joined in that its edges were not visible, dropped slowly down and out, revealing a dark recess. "There you are. Where you kept the book, Harvison."

"You've just proved you stole it," insisted Harvison. "Nobody knew that location but myself, not until I informed the League operatives just a few minutes ago."

"Nobody? You haven't any servants?"

"I have a robot all-purpose helper. And I did have a secretary—Martian-born Terrestrial named Saph Bendigo."

"Did have?" echoed Ismail. "Not any more? You fired him?"

Harvison shook his head. "He left. Had a better place, he said. I offered him more pay, but—look here, you aren't suggesting he robbed me?"

"He could. He knew your quarters; he must have guessed your possession of the book."

"Even if so, he didn't know where I kept it. He never saw me take it out to study. And he was a Terrestrial—"

"Martian-born," reminded Ismail. "Terrestrials can pick up some tricks of intercepting thought-waves from Martians. I think he's worth looking into. Your secretary, science-minded, aware of what the weather-information might mean. Where did he go?"

"How do I know?" sputtered Harvison. "And how could he make any profit out of the thing? If there'd been any logic to what you suggest, I'd have suggested it myself, to the League police."

"I'll find out," said Ismail, almost comfortingly. "His name is Saph Bendigo, you say? Good-night, Mr. Harvison."

He departed, as quietly and abruptly as he had come. And Harvison, feeling the temporary paralysis leave his nerves, hurried to put in a call for Yaxul of the Martio-Terrestrial League Police.

But Ismail, out on the landing stage, stepped into the waiting flier with new purpose and even satisfaction. He had not betrayed the fact in his exchange with Harvison, but now he knew something, and the something was definite. "Down to the Halfways," he told his pilot. "Building X-88-Trreeve." They whirled away, and he put his thoughts together.

Ismail had recognized the name of Saph Bendigo, at once; it was Bendigo who had shared in his substitution-adventure at the Zaarr, for payment, in advance, of a sum approximating a quarter of the winner's prize in the Great Grapple. Not much beside the name and the willingness to help had Ismail found out; purposely he had chosen a casual, greedy acquaintance from a Waterbrink gambling hall instead of some closer comrade who might be impelled to betray him. So Bendigo had been Harvison's secretary, leaving the job for something more profitable. That involved the stolen book of weather-formula. But the chronometer; Ismail had carried that into Coke Paylon's dressing room, had indeed checked the time just before using the atom-shift to enter. How then... He was going to find out.

●

COKE PAYLON'S living quarters were in the Halfways, the tall, blocky buildings that rose high above the Waterbrinks and underlay the sky-stabbing Hightowers. Ismail got off at a high promenade, paid his fare, and went along two corridors and down one elevator. For a moment his heart skipped—far down another corridor he thought he saw a looming,

tramping figure in a hood, and he did not wait to make sure. He hurried to Paylon's door. He touched the buzz-warner.

"Yes?" came a diaphragm-borne query recognizable as the athlete's.

"Let me in," murmured Ismail against the microphone. "It's private—about Saph Bendigo."

The door opened, and Ismail stepped inside. A last glance showed that, if indeed that uncouth giant had been in the corridor, he was not in sight, could hardly trace Ismail here. Inside was a room, not rich or large, but comfortable, and Paylon rising to face his visitor. Paylon's was the type of muscular body that looks coarser and softer in clothes than out of them. His moon-face looked almost cunning as he recognized Ismail.

"Well, it's you," said Paylon; "this is luck."

"You mean, you want to scuffle with me?" demanded Ismail. "Don't try it. I'll handle you roughly this time. As for talking, I'll do all of that."

"All of it?" Paylon sneered.

"I atom-shifted my way into your dressing room earlier tonight. I went out the same way. My clothes were in there with you, and you were tied. You were helpless—I know, because I did the tying. Your door was fastened, except to the keys of trusted employees of the Zaarr. But somebody was in there with you, and took a chronometer from my belt-bag. Right?"

"Who could it have been, now?"

"It could have been Saph Bendigo," and as he said the words Ismail saw Paylon's startled expression—it was the truth. "After all, he was the only one who knew I'd be there. He was a habitue of the Zaarr. He made me a plan of the side entrance and the way to your dressing room. And he hid in there before I came." Ismail made a direct statement of it. "He knew I was coming, and he got you to help him steal from me."

"You're whining because you were robbed, when you—"

"The reason I substituted for you," interrupted Ismail, "was that I knew I could beat that Venusian, and I doubted if you could. I divided the purse with you, fairly evenly, to pay you for your trouble of lounging in bonds while I did the work. Meanwhile, you were into the job of building false evidence against me, with Bendigo."

"That's true, Ismail." Paylon drew up his thick shoulders. "Do you think that I'd have been so easy for you to handle otherwise? Why, in anything like a fair contest—"

Ismail jumped in like a striking snake. Paylon threw up an arm, and next moment Ismail had clamped it in a vicious twisting hold. Paylon went down on his knee, his face contorted in agony.

"Does that convince you?" said Ismail. "All right, get up again, but stop trying to scare me. Anyway, Bendigo was hidden in your dressing room. When I left, he took my chronometer and walked out, leaving you tied, and the door locked itself behind him. Why did he want my chronometer?"

"You seem to know already," said Paylon, back on his feet and cherishing his twisted arm. "He planted it for a clue against you. Now he wants something else of yours; as a matter of fact, I was wondering how to find you when you walked in."

"He was with you all the time—"

"Correct," broke in another voice, "and I'm with him now."

From the rear room walked Saph Bendigo.

BENDIGO had a round, soft face rather like Paylon's, but planets and milleniums more intelligent; and that face rose on a spindle neck out of a gaunt body that could not be made powerful-looking

for all the padded shoulders and pneumatic muscles inside the modish suit of flame-colored jewel-cloth. Bendigo's black hair was combed back from a broad, slanting brow and cut square behind, with a terminal curl that was probably artificial. One of his delicate, manicured hands held an electro-automatic pistol, its muzzle directed steadily at Ismail's solar plexus, and Bendigo's slender, pointed forefinger quivered almost yearningly on the trigger-switch.

"So glad you came, Ismail," grinned Bendigo, showing fine, even teeth, "and that's not sarcasm."

"What's the thing you want from me besides my chronometer?" asked Ismail evenly.

"Haven't you guessed? The atom-shift thrower. I never thought you had it until you stepped in and out of the wall of the dressing room. I need an atom-shift in my new, fast-growing business."

"Isn't weather control enough for you?"

Ismail glared, but Bendigo chuckled and shook his head. His long, carefully swept hair stirred with the motion. "Clever of you to reason all that out, Ismail. I've always thought you were a police operative gone wrong, in temperament, anyway. Yes, I have the book, all the old researches plus Harvison's notes on blank leaves at the back—machinery can be set up from it promptly and cheaply."

Ismail did not look at the pointed pistol. "You're going to hold it for ransom, I suppose."

Again the head-shake. "No. I'm going to take it out of Martio-Terrestrial League jurisdiction—"

"To Venus, then?"

"To Venus," agreed Bendigo. "Swampy-sloppy worlds will pay anything for weather control, just like desert-dry worlds. I'll be a sort of weather king on Venus. Of course, there are interesting and energetic types on Venus—laws aren't easily enforced there—and I may have volunteer partners or partakers in my fortune. That's why I want a little arsenal of weapons nobody can argue against, such as that atom-shift you appropriated."

"I haven't got the atom-shift," replied Ismail.

Both Paylon and Bendigo laughed. "He's lying," said Paylon. "He walked in and out through those solid metal walls like a ghost."

"I had it but I lost it," said Ismail.

"Not very convincing," said Paylon, lifting the muzzle of his weapon a trifle. "Naturally you don't carry it with you. You have it hidden in a safe place, as I have the weather-formula book. That book," he went on, plainly loving to talk of his triumph, "is in my luggage stowed aboard the space-liner at the sky port, and when that space-liner clears at dawn tomorrow I clear with it—complete with the book and your space-shift. If you don't have it here, where is it?"

"The League police got it back from me," Ismail told him.

"Nonsense, man. Are you going to tell me, or am I going to put a pellet in your toes? They'll singe right off, and the attendants will have a messy cleanup job after Coke and I leave."

Ismail glanced at the athlete. "He's going with you?"

"Naturally," said Coke. "I'll make my fortune on Venus. Since you won over their champion at fist-and-foot they'll have a long list of new champions and big purses to put against me."

"And I," contributed Bendigo, "can act a convincing part for, say, a Terrestrial year—Harvison's ex-secretary trying to do his own experiments, becoming successful. Weather to order on Venus, clearing clouds and cutting rainfalls. The scientists here, despairing over the mystery of what happened to the old formulas, will come to me for guidance and advice—well paid, of course, in value-vouchers and prestige. You ought to be complimented, Ismail, because I've let you help me this close to such a career."

ISMAIL had seized at one word in Bendigo's recital. "Mystery," he

repeated. "You say there's a mystery for them to worry over in what happened to the book; but they think I took it."

"Certainly they do." Bendigo's free hand twiddled the loose end of a chain at his belt. "I fastened your chronometer to this chain, and broke it as if it had caught on something. Made it look like a clumsy loss instead of a clumsy framing of evidence. They think it's you, all right—I've tuned in on some police calls."

"I'm filling in the rest," said Ismail. "I'm to die, right? They'll have a corpse that can't talk, while you buzz away to Venus and grow fat on your thefts." Ismail grinned. "Since I know that, why do you think I'd give up the atom-shift even if I had it?"

"You have it," said Bendigo, his voice growing grim, "and you'll give it up. You can guess about more than one way to die, Ismail. Some ways are easy, some are hard."

Ismail took a step sidewise, making it seem careless. He hooked his thumbs in his belt. "You don't offer me much inducement," he temporized.

"No? Consider yourself in your last hour, Ismail. You can die quick and clean—a pellet in your chest, scorching out your life in an instant. Or," and Bendigo's smile was back, "a lot of pellets. One to scorch off your hand, a second to scorch off your foot, a third to scorch off your other hand. I'm a good shot—look."

Bendigo shifted his pistol-muzzle sidewise and slapped a pellet into a light-fixture on the wall. The released thermal power of the tiny projectile blazed the metal away like tinder. In the moment that the weapon was out of line with him, Ismail spun around and leaped upon Coke Paylon.

Catching the bigger man, Ismail swung the heavy body across himself. Bendigo, cursing, aimed again, but hesitated for a tiny tick of time and Ismail, lifting Paylon like a sack of grain, pitched him bodily. The lesser gravity of Mars was on Ismail's side. Paylon's flying form struck Bendigo and mowed him down, and Ismail dived after him.

His grip was on Bendigo's wrist. Another electro-automatic pellet buzzed past Ismail's ear and made a brief burning glow as it splashed on the ceiling. Then Ismail applied his knowing fingertip pressure, and with a howl of pain Bendigo dropped the weapon. Hauling him to his feet, Ismail struck the pudgy chin with the heel of his other hand and Bendigo went groggily down, stunned. Ismail and Paylon both scrambled for the fallen pistol, and Ismail got there first.

At that moment the buzzer sounded. Ismail, weapon in hand, froze still. So did Paylon, on one knee. Recovering, Bendigo began to get up. "Quiet, everyone," he whispered. "That must be—"

Again the buzzer, imperiously demanding admittance. When none of the three moved, there was a rending crash of breakage, and the stout metal-joined door seemed to disintegrate in its frame.

TWO BIG flapperlike paws cleared the broken shards away, a hooded head ducked below the lintel, and in moved the giant operative Ismail knew.

Ismail faced that mighty form, the gun in his hand, but he did not level it. "I refuse to be taken in on that charge of stealing from Harvison," he began desperately. "As a matter of fact, I've just been finding out—"

The giant did not hesitate. It took a stride to him, then past him. A mighty elbow, big and hard as the limb of a great bronze statue, nudged him out of the way. A broad hand took Bendigo by the collar of his gaudy jewel-cloth tunic and hoisted him to his feet.

"I arrest you," came the sweet musical voice from the hood, "on a charge of stealing scientific secrets from Toland Harvison."

In through the wrecked door trotted a robed Martian, and behind him

a Terrestrial girl, slim and active, with wide blue eyes.

"I am Yaxul," declared the Martian. "League operrative. Thiss iss my colleague, Misss Fairrdean. We werre tuned in forr minutes on yourr intrriguing converrssation—though we did not need it. The bit of chain you wearr," and his tentacle pointed to Bendigo's belt, "wass enough. Ourr Bloodhound led uss to the man who carried it."

Bendigo tried to break the powerful grip upon him. His collar tore and he plunged at the doorway, but Ismail headed him off. There was a brief scuffle. Ismail caught his belt pouch, which also tore away, then fastened to his throat.

"Let this oversized operative make good on a real clue once," he said, and shoved Bendigo back into the big paws. As the giant seized the prisoner again, the hood fell away from the head, which was not really a head.

It was a great round knob of dull metal, set with a gleaming central light and turning on a neck of jointed housings.

"A robot," said Ismail, staring. "I should have known."

The girl with the Martian was fingering the controls of a small, intricate mechanism. "Yes," she said musically. "He's our first experimental Bloodhound. Works by remote control, and follows whatever vibrations we tune him to. Metal is especially good—the atom-ray shift you had, then the scrap of chain on your chronometer."

Yaxul was tethering Paylon's wrist to Bendigo's, with a supple band of metal that bore a cylindrical housing. "Do not trry to rrun," he warned, "orr that brracelet will begin rray action to paralyze and injurre you." He turned back toward the great Bloodhound robot, now standing like a statue. "This rreporrt will interresst the laborratorry—how faithfully it followed a wrrong trrail to the man we ssought, then a rright trrail to the man we did not ssusspect."

"It spoke with your voice," said Ismail, gazing at Troy Fairdean.

"By radio pickup," she agreed. "Ismail, you have some questions to answer. You took an atom-shift ray and it almost fell into worse hands. And speaking of hands—" She smiled at him, and he smiled back at her, quite pleasantly. "Suppose I put this bracelet on one of them."

She held out a metal band like the one that confined Paylon and Bendigo. Ismail stepped back, shaking his head.

"Sorry, no," he said, and suddenly darted out through the broken door.

He sprinted down a side corridor, swiftly but not nervously. Yaxul and Troy Fairdean must stay with their two prisoners, and the Bloodhound robot could not take his trail without some article on which to tune it.

Quickly he entered an elevator. On the way down, he looked at Bendigo's belt-bag, still in his hand. He rummaged through it. From a sheaf of papers he selected two, smiling over them and sliding them into his own pouch. Then, emerging on ground level, he headed outdoors, to the Waterbrink, and tossed the torn bag with the rest of its papers into the canal.

"If the Bloodhound tunes in on them, it can dive for them," he said to himself. Then he moved toward what was, by comparison, Pulambar's quiet section.

DAWN. THE Venus space-liner stirred in its port housing. It was an immense metal egg, set in a pit like an immense eggcup, with heavy line to contain the powerful takeoff blast of the rockets. Many flames gushed, roared and sang, and the vessel rose deliberately, then gathered speed and soared away above the metal-plated expanse of the port, above the buildings, hangars, above Pulambar's battlements, spires, into the sky and into space.

From their surface-car, Yaxul and Troy Fairdean studied with satisfaction the recovered weather formula

book. It had taken considerable stern insistence to force the liner captain to bring out Bendigo's luggage and open it, but they had succeeded.

"Now Harvison can continue his rain experiments," said Troy.

"Were the superrintendentss harrsh about Issmail's esscape?" asked Yaxul.

"Medium. I've been on hotter carpets—so has every operative worth the price of a League badge. I kept telling myself that without Ismail we wouldn't have caught Bendigo and recovered this book. Ismail may not have planned working on the side of the law, but he wound up doing it." She smiled reminiscently. "I wonder if he's embarrassed, wherever he is."

"Prrobably rrelieved," suggested Yaxul. "We cannot follow."

"Can't follow? Why?"

"The liner." Yaxul's tentacles sought the car's controls. "It clearred with a full lisst of passengerrs."

"Most liners do, these days."

"But it sshould have clearred one shorrt—Bendigo. Paysson would follow laterr, but Bendigo wass going today."

Troy stared at the Martian. "You're right! And instead Bendigo is waiting for trial. But then who—"

"Yess, who?" purred Yaxul. "Rremember when ourr Bloodhound drredged Bendigo'ss belt-pouch frrom the canal? Full of paperrss—but no trravel-perrmit, no farre-voucherr for Venuss."

Troy gazed after the vanished liner in the sky.

"He's escaped!" she cried, and again she smiled. "Well, I've had my scolding, and I can't help but be happy we're not pursuing him. He'll succeed famously on Venus—as Bendigo said, the laws there are sketchy. Did you know he was aboard, Yaxul?"

Yaxul did not reply, but started the car humming back to their offices.

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In a moment, Reese was out in space, after Lee Sheraton.

VOICES IN THE VOID

NOVELET OF STAR-SECRETS

by MILTON LESSER

His papers were stamped "SF"; and Space Fear meant that Craig Reese could not look upon the stars and retain his sanity.

Once upon a time, it was believed that nothing existed between worlds—there was nothing out yonder but empty "space". Now, we know that it's nowhere near as "empty" as vacuums we can produce, artificially, in our own labs.

WITH THREE men and a woman, Craig Reese was awakened and ushered out of the suspension room two hours before the *Starcoach* roared down for planetfall on Gilhanna II. A crewman lolled insolently in the corridor, snickering. "Any of you people want to visit the

lounge and take a last look at space before we land?" he demanded.

He did not mean it. The suspension room was for SFs only—for people afflicted with space-fear. Animation suspended, they journeyed across space in their crypt which tradition placed adjacent to the cyc-vault. Their more fortunate fellows who did not hear the ghostly, impossible voices of space, Reese thought bitterly, would always remember the glorious dash across sixty-thousand light-years of space from Sirius to the Gilhanna System, here at the hub of the galaxy—would cherish their memory of hurtling suns and mothers of suns which were nebulae, their memory of the brief bright flareup which swept the *Starcoach* into hyper-space, of the second flareup which brought it out of the warp and into view of the million-million gleaming stars which huddled together in chaotic confusion near the Hub.

But SFs heard voices and the voices could drive you mad; so SFs slept in their crypt where the voices could not penetrate their hypnotic slumber. The insolent crewman knew this, of course. He also knew that not one of the SFs would ever venture near the star-lounge, and some of them might choose mayhem as an alternative. But spacemen were a cocky lot, looking down their noses at planetlubbers in general and SFs in particular.

The crewman said again, "Sure none of you wants to come up to the lounge with me? Man, we're in a gorgeous sector of space. You should see the—"

"That's enough!" Craig roared, grasping the front of the man's tunic in big, powerful hands. "I saw a bright-eyed kid like you pull this same stupid trick on the Capella run two-three years ago. A lady got sick and she stayed sick, and if there's a cure, no one told me about it. Any more of that, and I'll ram my fist down your throat."

Reese shoved the man back away from him and stalked into the baggage room to claim his gear. The *Starcoach* had cleared hyper, and by the time Reese assembled his luggage, shaved, showered and got a bite to eat in the 'low decks snack-bar, the ship knifed into Gilhanna II's atmosphere and made planetfall on time to the minute. A wonderful thing, space-flight—*if* you could appreciate it.

●

REESE gazed for a moment at the three suns in Gilhanna's sky, the white, the blue and the massive red. Here at the Hub, multiple star-systems were the rule rather than the exception, but Reese had lived most of his thirty years in the Sol-Deneb-Capella Sector far away on the other side of the Saggitarian swarm which curtains the frontier worlds. It was all new to him, and breath-takingly beautiful, but he didn't have time for it.

He elbowed his way through the throngs of people on the landing apron, and the third sun, the big red one, brought a fine dew of perspiration to his skin before he reached the coolness of the administration building. There he told a pert receptionist that he had an appointment with Lee Sheraton and, after checking her schedule-book, she directed him to an elevator which whisked him to the fortieth level.

A second receptionist, and a third—both men—and then Reese waited while the door to Sheraton's office irised open and then blinked shut behind him like a giant eye over which the lid had been drawn.

Lee Sheraton turned out to be a woman. Tall, almost as tall as Reese himself, she wore a shimmering tunic which fought a losing battle to hide the lithe proud curves of her body. Her eyes met his coolly, appraisingly; her blonde hair was close-cropped, frontier-fashion; she looked strong and hard, but she was also gorgeous, and if Reese ever had seen a more magnificient woman, then it was on Sol III, where the simple, decadent folk bred their women for beauty.

Lee extended her arm, shook hands firmly with Reese. She leafed rapidly through some papers on her desk, said: "So you're a warp-engineer, eh? Is the SF on your classification-visa a mistake?"

"No mistake. I have space-fear; so what?"

"So nothing." She shrugged. If he had seen a trace of contempt in her eyes, it faded away quickly, and he could have imagined it. "I was just thinking," she told him, "that it's a queer combination. A warp-engineer must spend a lot of time in space, naturally; doesn't it interfere with your work?"

"If it did, I wouldn't be a warp-engineer, would I? A-1 rating, as the visa says. If you read some more, you'll find that I charted the original warp which brings Sector One travel here on the new short route that skirts Ophiuchus—"

"Well a pat on the back for you! I can read, Reese."

His face reddened. He had not meant to talk boastfully; he merely wanted to justify his rating as a warp-engineer, and it was hard enough to justify anything when the big letters SF were stamped in black on your visa. "I do your paper work," he explained. "I need a staff of space-jumpers; otherwise, everything's nice and normal. You'll find recommendations—"

"I said I can read. But you look too big and too strong to spend all your time at paper work."

Reese gave her a wolfish grin. "I don't work slowly, so I have a lot of free time—and I don't use all of that for paper work." Instantly, he regretted it; she could stare that kind of grin down every day of the week, and twice on Sunday.

"I suspect we're straying from the point of this interview, Mr. Reese. What do you know about Gilhanna's warp?"

"Not a hell of a lot," he told her honestly. "Just what I read in the textbooks."

"Well, Gilhanna's warp is the only permanent hyper-space channel in the Galaxy. Starships shoot hyper all the time, sure: you couldn't have interstellar travel otherwise. But they use brief, temporary warps. Gilhanna's warp is more like a conduit, carrying water from this world to Gilhanna III, an arid desert of a planet on an orbit sixty million miles further out from that big red baby you can see through the window. It's complicated, Reese—you have to figure the syndoic and sidereal year of each planet, you have to account for the pull of three suns, you have to—"

"I know all that. What's the problem?"

"The problem is simple: it doesn't work. Something happens, we don't know what, and every week or so there's a breakdown. The fractured warp looses an awful lot of water into space, and that can't go on. Gilhanna II has a lot of water—only a fifth of the surface on this planet is land. But there's isn't enough to supply our needs, the needs of Gilhanna III, and a hole in space as well. Cigaret?"

Reese took the smoke and lit it. Some people claimed cigarets went back almost as far as the game of chess, both of which rolled merrily along as man pushed back the frontiers of his universe.

"So I've got to see if I can find the flaw in the warp, is that it?"

The woman nodded. "More likely than not, you'd be chasing after shadows. Mr. Gilhanna thinks it's sabotage. We slapped down an abortive revolution two or three years ago, you know, but that was before the warp, and the five million mining families on Gilhanna III had to depend on shiploads of water for survival. The population out there has doubled since Gilhanna built his warp, but they're grumbling like mad now, because the warp started acting up. Any questions?"

"Yeah," Reese said, "I've got one; what happened to my brother?"

LEE SHERATON said, "Your brother? What are you talking about?"

"My brother, like I said. Name of Harold Reese. He'd be twenty-seven now; came out here five years ago to do tritium mining on Gilhanna III. Twenty-nine months ago, we stopped hearing from him. What happened?"

The woman snuffed out her cigaret, crossed to the window and looked for a long time at the monster red sun hovering on the horizon. "As I told you, there were five million mining families on Gilhanna III, roughly, twenty million people. That was two years ago. Now there are twice that number, and it would be pointless for us to keep records, Reese."

"You can go to Gilhanna III and look for him. It might work out very well for you at that, because a lot of your work will take you there anyway. But don't get too optimistic—when you reach Gilhanna III you'll find one of the really backwater worlds of the galaxy. Many places, they don't even have electricity, let alone atomics. In a constant state of anarchy, they don't keep records either, and—"

"Damn it," Reese swore, "you'd think that Gilhanna would keep his own records."

The woman smiled. "You don't know Garr Gilhanna. Probably, he's the galaxy's only quadrillionaire, Reese. This System's Gilhanna A—out here at the Hub there also are Gilhanna B, C, D and E; and Garr owns them all, down to the smallest chunk of meteor. He didn't get that way by watching out for every SF warp-engineer's wayward brother."

Alarmed, Lee turned away from the window when Reese's fingers dug into her shoulders. "Watch your step," Reese growled. "I didn't come sixty-thousand light years to hear you tell me my brother's not important. Understand?"

She took hold of his wrists with her own surprisingly strong hands, pushing them firmly down to his sides. "I understand, Reese, but you don't. You came here for a job—okay, we need a good warp-engineer, because before we turn in a verdict of sabotage and start knocking hell out of the miners on Gilhanna III we want to be sure. Meanwhile, you have a job. Anything you do on the side is your own business. You can turn III upside down and look for your brother; I don't care. But when you're on Company time you take your orders from me, and you don't talk back. You don't tell me what I can or can't think about your brother or anything else. Try it, and you'll wake up one fine morning out in space, with a lot of emptiness all around you and all the little ghost-voices whispering in your SF ear. Is that clear?"

Reese shuffled his feet and looked down at the floor. He needed the job, he couldn't carry out an investigation for his brother without it. He said, "Where do you fit into the setup?"

"I'm the Executive Director of Gilhanna Enterprises for this System, Reese. You might stay here for a dozen years and never meet Mr. Gilhanna, but you'll see plenty of me, and you'll get plenty of my orders. Now, do you still want the job?"

"I'll take it," Reese said. He wasn't smiling.

2

AN UGLY little world, Gilhanna III, throwing bleak crags up at the somber red sky. The change struck Reese at once. Gone were the park-like islands of the planet which housed Gilhanna's administration machinery. Gone, too, were the comforts of an interstellar culture. Reese had remained for a week on Gilhanna II, studying the theoretical aspects of the warp. He'd caroused a lot of that time outdoors, and the strong actinic rays of the red sun had bronzed his skin and bleached his hair.

A pleasant enough interlude, he thought now, as the dry winds of the third planet parched and irritated his skin like fine sandpaper. Almost, it had amounted to a lark, but Lee

Sheraton had hovered nearby, observing, directing, commanding. The woman posed a problem for Reese, and he half-promised himself to solve it—along with a handful of others which heaped one upon the other here in the Gilhanna System. Gilhanna's warp, which should have behaved itself and didn't; an abortive revolution and the role his missing brother had played; and a woman who seemed ornery out of all proportion to the situation...

The one thing he had no time to consider was his space-fear. After the interlude on Gilhanna II he'd taken up a warp-ship, one of those slow, ponderous vessels which could hang precariously on the mysterious zone which separated hyper-space from normal space. Virtually every cubic foot of the warp had been investigated by his two jumpers, and he'd done a yeoman's share of paper work. It added up to nothing. Suddenly, without warning, the warp caved in upon itself, gushing a million tons of water into normal space every minute. He couldn't get near enough to investigate *that*, because the geyser spewed water which became ice instantly, and the jagged particles of ice which rocketed through space could be as effective—and destructive—as a meteor swarm.

So, rather than admitting failure, Lee had ordered him to Gilhanna III to study the receiving station.

The mining families lived in small communities, few of which exceeded a hundred thousand people. They lived primitively—only the tritium-extracting machinery smacked of interstellar culture. And at the outset Reese had no time to study the receiving station, a great artificial lake fed by one end of Gilhanna's warp. Instead, he found someone who remembered his brother.

●

THE MAN was a stocky, middle-aged miner who'd given up that occupation to become supervisor of the Lake. His office, buried deep among the generators which pumped water from the Lake to all the communities of the planet, reeked of ozone, and by contrast with the dry cold of Gilhanna III's surface, the place was a Turkish bath.

He shook hands sullenly with Reese, then said: "Name's Jackson. Sheraton's office told us to expect you. But I'm a busy man, Reese; so whatever I can do for you, make it quick."

"I just want a few facts about the Lake here. But hell, if you're busy, I can get 'em myself. Lee suggested—"

"Bah! I wonder if that beautiful dame ever had a thought of her own. You know the story, don't you?"

"How should I know? I just got here."

"Well, Sheraton was a waif, orphaned when her folks died in a rough transit out of hyper. Don't ask me why, but Gilhanna took a fancy to her, raised her like his own kid. Now she thinks he's the Almighty, and the only life she knows is hard-boiled efficiency. That's what he taught her."

"I see." Reese stood up. "I don't want to impose, Mr. Jackson, so, if you're busy, I won't bother you. But I'd like to ask you one question."

"What'sat?"

"Did you know Harold Reese?"

Jackson rubbed the stubble on his chin thoughtfully. "Yeah. An eager kid, with some romantic notions about equality here in the Gilhanna System. I remember—"

Reese felt his heart doing a mad dance. Sixty thousand light years is a long way to look for your kid brother who went galivanting off into deep space. "Where is he now?"

"Say, wait a minute! Your name is Reese. Umm-mm, wouldn't be a relation? What? His brother? Well, put 'er there, son." This time the handshake was vigorous, hearty. Jackson sat down, rapped his knuckles on the battered desk top. "Maybe you didn't come here to snoop around for Sheraton; maybe you came looking for your brother's grave, eh?"

"Oh," Reese grunted dully. "His grave—"

"Yeah. I'm sorry, Reese; he got it in the revolution two years ago, blasting a tin-can ship against Gilhanna's navy..."

"I came for both reasons," Reese admitted. "Lee Sheraton's paying me to kick around the warp and come up with something. But now that I found out about Hank—"

"That's rich," Jackson chortled. "Paying you to study the warp. Don't *you* know what's causing the trouble?"

Reese shook his head.

"Gilhanna himself, that's what. He figures if he can worry us enough with the threat of no water, he'll really have us grovelling. Same thing last time, only then there wasn't any warp, so Gilhanna slowed the shipment by tanker. That led to the revolution—and to your brother's death."

REESE WAS confused, and he did not try to hide it from the supervisor. "That doesn't make sense, Jackson. Sheraton said you miners probably played around with the warp, sabotaging it."

"What!" Jackson's face turned purple. "We depend on the warp for life; would we sabotage that?"

"Well, Gilhanna depends on the warp for healthy miners to extract tritium and make him the richest man in the galaxy. You tell me which makes less sense."

"Are you serious?"

"Yeah. Yeah, I mean it. I think you're both barking up the wrong tree; I think something else is responsible."

"What?"

"That beats me. I thought I'd try to find out; now I don't know. I came to the Hub to see about my brother. You told me—"

"That's better." Jackson relaxed visibly. "I'd have hated to see Reese's brother working for them. You know, they say the only time Sheraton ever stood up against Gilhanna was during the revolution. She thought they could settle it without knocking off five thousand miners and bringing us to our knees, squirming in the sand for a cup of water. If it's true, she didn't do anything about it."

"I'll go now," Reese said, standing up again; "probably, I'll draw my pay and get out of this system."

Jackson opened his mouth to say something, but a phone buzzed on his desk. He picked up the receiver, barked into it, "Jackson. Uh-hunh, how're you, Mike? What say? What? Those damned butchers!" He hung up, and his hands were trembling when he faced Reese.

"Your pals, Gilhanna and Sheraton. Know what they did? They decided they were losing too much water into space. So they shut the warp down, and they won't start it again until they get to the bottom of the difficulty. We've got water here in the Lake for two weeks, for a month if we all go around with sore throats. After that, they say they'll be shipping by tanker, like in the old days—except that our population's increased so much that the tankers couldn't give us enough even for drinking purposes.

"Ain't that neat, Reese? I'd like to have that Gilhanna here. I'd like to see him living on a ration of a liter a day for all purposes. Damn his hide...

"Listen, Reese." The stocky man leaned forward inpulsively, peering at Reese across hairy, muscular forearms. "Don't think we forgot about the revolution and what your brother died for. We don't want to bring Gilhanna to his knees; all we want is enough of a voice to make this slab of a planet livable. We got an organization, we got... Why don't you throw in with us, Reese, and finish what your brother started to do? There's Mike, who just called me. He

wants a full-scale war, wants to come storming down on Gilhanna II in a bunch o' obsolete spacers you could pry open with a pen-knife. And there's old Wilbur. He thinks we should arbitrate. Arbitrate—hah! That's a laugh. We've been arbitratin' for years, and what happens? Nothing. Me, I'm someplace in the middle. I—what do you say, Reese? Join us?"

"I'll think about it," Reese replied, moving toward the door. "Maybe I'll get in touch with you one of these days, Jackson. Good luck."

Jackson sat there, mouth agape, looking foolish. He seemed very disappointed. Well, there was a lot to what he said. Sure, Reese wouldn't mind at all finishing what his brother had died for. It wasn't his fight, he'd have to be a hypocrite to admit otherwise. Still, if his brother had died...

But of one thing he was sure as he emerged on the cold surface of Gilhanna III. He wouldn't cast his lot with a wild-eyed bunch of anarchists whose three leaders maintained three opposed points of view, not when it might place him one fine day in an old spaceboat with nothing between him and the voices of space but a one-inch sheet of battered steel.

●

HE FOUND his two space-jumpers, a couple of scrawny old men who'd been licensed pilots before the Sector One schools started turning out polished young officers who knew hyper space theory like the old timers knew asteroid hopping—found them drinking the fiery native liquor in a Lake City bar. He joined them for a drink or two, listening for a time to the angry conversation of the miners, keyed to fever-pitch by a woman agitator who favored the total-war solution. But Reese couldn't join the talk on anything like an equal level: his polished boots, smart britches and jumper with the big "G" emblazoned on its sleeve—these spoke too clearly of his employment by Gilhanna. And after he almost came to blows with a whiskered miner who mouthed a steady stream of invective at him, he took his two protesting companions by their arms and led them out to the spacefield.

Using its normal drive, the warp ship reached *Brenschluss* when Reese started hearing voices.

Sometimes it happened like that—sometimes even the six-inch hull of a new ship failed to offer adequate protection. Reese ran widely to the first-aid locker, threw it open, reached in for the hypo which would put him to sleep.

The voices tore at the fibers of his brain, twisting through the convoluted paths, probbing insistently, clamoring...

He depressed the plunger, held the hypo up to the light. It was empty!

Babbling now, Reese tumbled back into the control room. Sure, space-fear was a comparative rarity and drugs here in the Gilhanna System were at a premium. He'd neglected to tell the clearance officer on Gilhanna II of his affliction, and somehow the man had missed the SF on his visa.

Now he could do nothing but take it for four or five hours, until the ship reached Gilhanna II's shielding atmosphere. Take it—take the voices... Half a millenium before, when mankind first blasted out into the void between the worlds, they'd discovered space-fear. They knew no cure; in Sector One they spent a billion dollars yearly to find one, but the money dissolved into space as surely as water from Gilhanna's leaking warp.

The familiar giddiness swept over Reese, the all-consuming desire to hurl himself from the lock and merge with the ghost-voices. Not voices, not really, although people called them that. Just the suggestion of a sound, and the suggestion of tired bitter thoughts which somehow belonged to the sound and somehow did not. Reese could not understand the thoughts, not entirely. No one could, and the savants considered them purely subjec-

tive, on the fringe of lunacy, delicate, razor-sharp pips of madness welling up from the unconscious mind.

Grimacing horribly, Reese tugged at the airlock mechanism. Some sanity remained, some slight sanity which the discord of humming and half-formed alien thoughts could not reach, and it told him to stop. He cried out, "Damn it, hit me! Hit me..."

The ship was on automatic, and now the two space-jumpers came running from their quarters. They'd been around long enough to understand. They took one look at Reese and leaped toward him. Their scrawny frames hid deceptive strength, and they battled him away from the lock, threw him to the floor where he continued his babbling and struggling.

One of them held him down... *The insane fool! The voices beckoned, beckoned. He merely wanted to go out and join them. What was wrong with that? Why couldn't these two idiots leave him alone? Stop! Get your filthy hands off me! Look out now, look out—ummm....*

One of the jumpers held him there on the floor, one pounded at his jaw, over and over again, smashing his fists against it until the knuckles were raw, then smashed again. Reese was tough and Reese could take it, but eventually he subsided...

3

"HOW DO you feel?"

"Lousy, thanks. What happened?"

"They brought you down okay, Reese. You've been here in the hospital for a couple of days; your jaw was dislocated."

"Ow! You're telling me." His whole face felt stiff, like it had been packed in ice for a year. Lee Sheraton sat on the edge of his bed, looking as beautiful as the first day he'd seen her. But as unruffled. Things happened fast in the Gilhanna System, and he figured a lot had happened with explosive force since his accident, yet the woman appeared as coldly efficient as ever. He wondered, suddenly, if she had looked that way when she ordered his brother's death.

"I found out about my brother," he said.

"Yes? Tell me."

"Nothing to tell. You know that revolution you told me you slapped down? You slapped him down with it; he's dead."

"Oh."

"Yeah, 'oh.' Are you ready to do the same thing all over again?"

"Don't jump to conclusions. The revolution wasn't my idea. Once it started, Mr. Gilhanna had to put it down, of course. I still didn't like it. I kept out of the picture."

"You kept out of the picture. I think that's swell. But you didn't lift a finger to stop it, hunh? You just watched. Nuts!"

She changed the subject. "Mr. Gilhanna wants to see you."

"Is that so? What for? I thought he doesn't see anybody."

"There's trouble on Gilhanna II, Reese. Your space-jumpers told me you saw it yourself, but now it's worse. Mr. Gilhanna's hands are tied; he can't give them water—"

"Doesn't want to, you mean. Hell, the guy's a quadrillionaire, you said so yourself. So he can waste some water, so it costs him a lot of cash—so what? He can afford it."

"Doesn't want to, then," she said acidly. "Have it your way, Reese, but you've not been in the System long enough to be a policymaker. Will you shut up and let me talk? Good. He's decided to abandon the warp until you locate the difficulty. He wants to see you about that now. Think you'll be up to it this afternoon?"

"Damned right I'll be up to it."

She leaned forward, lit a cigarette, gave him a drag through the bandages on his face. "Don't worry about those swaddling clothes on your mouth, Reese. They come off today. What I

want you to keep in mind is this: Mr. Gilhanna favors doing some slapping down again, that's the way he is. I'm not, and I don't. I'd like to see you find the answer. If you do, it can prevent a lot of bloodshed—"

"Sure, so I go spinning merrily off into space again!"

"I know doctors recommend a year of planetlubbing after an—attack, unless you go out on one of the big liners and get your animation suspended. Still, I thought you might like to prevent some mass murder, like your brother..."

"Shut up. When I decide to prevent anything, I'll let you know. What time at Gilhanna's office? Three o'clock this afternoon? I'll be there."

Deliberately, he turned over on his side, did not look up again until the door irised shut behind her. Then he picked up the phone and ordered some food.

•

GILHANNA'S offices pierced the clouds on the tower atop the administration building. Three levels which did business in nothing but precaution supported it. In the first, Reese was stripped. He went one way and was questioned by a psychologist; his jumper and britches went another way, carefully studied for any signs of a lethal weapon by a staff of experts. He met them and donned them on the next level, while a trio of female receptionists stood by indifferently, asking questions which in many cases coincided with those of the psychologist, then checking them by phone. Another searching on the third level, this time less thorough, and a complete briefing on how to act in the presence of the Great Man.

Then Gilhanna himself.

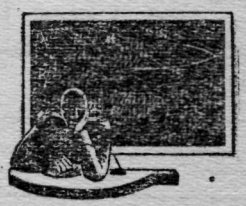
Like everyone who had ever met the man, Reese did not know what to expect. A craven coward in the isolation of his tower, protected by his three levels of scientific body-guards? A big mountain of a man, bathing in luxury, scenting his soft body with the alien perfumes of a dozen worlds in bondage, sipping from a selection of exotic liquors and wines which made champagne taste like dishwater?

Gilhanna was neither. Reese met a thick-thewed giant with a handclasp like two iron jaws clamping together, with close-cropped gray hair and a superbly-muscled body which proclaimed constant vigorous exercise. With two burning eyes that pierced into you and seemed to strip your mind of its most secret, cherished thoughts. Mostly, Reese was aware of the eyes, and he did not like them. Eyes of unwavering purpose, but twin orbs of evil, flint-hard, coldly calculating—eyes which perhaps had studied Lee Sheraton as she grew from an infant to a girl to a woman, guiding her, clamping her in an inflexible mold which turned out a polished, efficient Executive Director for Gilhanna...

The woman was there too. "Craig Reese," she said, "this is Garr Gilhanna. You will call him Mr. Gilhanna."

"Okay. *Mr.* Gilhanna."

"Reese, the girl's crazy. She thinks



if you can repair the warp, we can prevent revolution on Gilhanna III." He spoke of the planet which bore his name with a studied lack of pride. And that, after all, was the really prideful way. Gilhanna System—why, naturally! "Now, Reese, I'll make this perfectly clear. First place, I don't like the idea; I don't think you can fix a thing."

"I didn't say I could."

"Lee said you could."

"Well, I still say it. It's certainly worth a try."

Gilhanna waved a hand for silence. There was silence. He said, "Further, I actually favor the revolution. Sure, let 'em get smart, let 'em try something—we'll knock 'em down thoroughly this time, and when the pieces are picked up and put back together again, I'll hold 'em in the palm of my hand. I'll balance 'em on the edge of my little finger. I'll—"

"You told me," the woman reminded him softly, "that you'd give Reese here a chance."

"I did, and I will. I—"

"Nobody said I wanted the chance," Reese stated, smiling when Gilhanna's eyebrows shot up in disbelief.

"Good!" the Great Man said after a time. "Splendid! Then we can call the whole thing a closed issue, and I'll just wait until the miners take their dinky crates up and try something. Like the last time—"

"What about the last time?" Reese wanted to know.

"Simple. Ridiculously simple. They blasted off in four converted freighters. We waited till they reached *Brenschluss,* then popped 'em out of space—*ping, ping, ping, ping*—just like that. Two ships wanted to call it quits, but we had to teach 'em a lesson, had to slap 'em down good. Eh, Lee?"

"No," she said. "It wasn't my idea; it wasn't necessary." Her eyes implored, yet she looked not at Gilhanna, but at Reese! It was as if her eyes said: *Please, work again on the warp. He'll kill again if you don't, like he killed your brother...* Then Gilhanna's tutelage had given his ward everything she needed to be a first rate Executive Director, except the ruthlessness of the master himself.

Reese said, "I think I'll take a crack at it. When can I start?"

"At once," Gilhanna muttered. "The sooner you admit defeat, the sooner I can take my own measures. A promise is a promise, Lee—but you'll see that we're wasting time."

"We'll see," she told him, as Reese got up to leave without waiting for Gilhanna to dismiss him.

●

In the weeks which followed, he tried. He studied the warp when it did not conduct water; he had them pump water through it in a continual torrent; had them shoot the liquid through in short blasts. He tried everything, and the warp behaved perfectly, a channel of hyper space tucked into normal space on a path which followed Gilhanna II and III on their journeys around the red sun with mathematical perfection.

And then it broke down, suddenly. No cause. No reason. It simply broke down.

The miners on Gilhanna III grumbled, went on half-rations, grumbled some more. Rumor had it that their fleet consisted of a dozen over-aged ships this time, culled in by sympathetic businessmen outside the System who wanted a hand in Gilhanna's quadrillion-dollar enterprise.

Lee Sheraton warmed to Reese. In his spare time he saw the brittle shell of her efficiency wavering. Two or three times she spoke in open rebellion against Gilhanna's plans. She'd not stand by and let him slaughter thousands of miners again, despite everything. Her zeal almost communicated itself to Reese, and many times he found himself thinking that he'd be on hand when the final reckoning came. Except when he thought of the voices in space, and the terrible things they could do to his mind. Even his two space-jumpers must have sensed that, because now they treated him like a delicate piece of china, soothing him in space, keeping him occupied with tall tales of their exploits before the bright young Sector One pilots came along and took their jobs away, reminding him whenever he got morose that they had a loaded hypo on hand this time.

Back on Gilhanna II, Reese saw Gilhanna's preparations for small-scale

war. A hundred shining warships were fitted for action, and they waited, long, graceful teardrops, in orderly rows on the spacefield. All he had to do was press a button... No, probably he'd blast off with them to witness the carnage firsthand. After that, he'd spend many a comfortable hour with his memories of the way he'd slapped down the second abortive revolution.

Once, Reese got a call from Gilhanna III. Supervisor Jackson. The man wanted to know if Reese had considered his proposition, if he were ready to act as inside man. Reese told him his hands were tied. He was not in a position to work from the inside, even if he had wanted to. He advised Jackson to have patience, to wait and see what might develop, but the words sounded empty, without promise, even to his own ears. Jackson cut the connection contemptuously.

●

The next day, Lee Sheraton stormed into Reese's hotel room without warning. "Craig," she cried, "Craig, I don't know what to do! I—"

"*You?*" he demanded. "You don't know what to do?" Immediately, he was sorry. She'd come to him because she thought he could help; she certainly did not come for ridicule—

"Stop fencing with me all the time, Craig. Please. Do you know what's happening? The miners sent their dozen ships up today, and they're rendezvousing a million miles this side of *Brenchsluss*. They don't have warp-drive, just the old normal stuff. Gilhanna's going to shoot his hundred ships through hyper and surprise them while they're coasting. They won't have a chance."

"All right, okay. You don't want to see it happen. At first, that surprised me; it doesn't any more. I don't want to see it happen either. But what the hell can we do?"

"You'll see, Craig. It took me a long time to see through Gilhanna. I almost did the first time, but he sugar-coated everything for me after that, and I forgot. Now—well..."

"I said, what can we do?"

"You'll be getting a call from Gilhanna any minute now. I—uh, arranged a fight with the only other warp-engineer in the System. I got him in an alley and hit him with a big piece of metal, Craig. He fell and he was bleeding and I hope I didn't hit him too hard and—"

"My gosh," Reese said, letting her babble against his chest, "you're human after all. I'll bet you'd make a nice gal-friend now that Gilhanna's veneer is washing off. I'll bet—"

"Not now, Craig. Gilhanna will need a warp-engineer to chart his course through hyper. You're it. Maybe you can trick him, or—well, you know more about that than I do."

Reese didn't have time to think about it. The phone buzzed, and Gilhanna himself was at the other end of the connection. Could Reese meet him at the spacefield in thirty minutes? Excellent...

4

"SHE COMES with us," Reese insisted, and Lee nodded her head vigorously. "I'm not kidding, Gilhanna. If she wants to come, she comes; otherwise I don't!" There might be danger, there probably would—but if Lee still felt like being on hand, there'd be nothing better than that to wipe the last traces of Gilhanna's training from her.

Gilhanna shrugged his massive shoulders. "All right, both of you then. Let's go."

The hundred ships gleamed like rubies in the bright red sunlight, and when Gilhanna's pilot took the first one up, the others followed, roaring their thunder as they cleared atmosphere in less than three minutes.

Space—cold and bleak and silent. And voices? Sometimes you heard

them, sometimes you didn't. Now Reese couldn't be sure. Faint mutterings nibbling at the corners of consciousness, but certainly nothing more. For the present, at least, he was safe. He shuddered when he thought of the last time...

"Now," Gilhanna told him, "you'll chart us into hyper. I want to reappear with this fleet a thousand miles this side of the rebels, Reese. These are their present coordinates—" He flicked a switch, and a tri-dimensional graph swam into view.

"Sure," Reese mumbled, studying them. "I'll have us into hyper in a minute." He thought: *Ah-hah, about half a billion miles off course. That'll give the rebels their chance to land on Gilhanna II, and they can take over the planet without force before Gilhanna can get back.*

"...Oh yes, I wanted to tell you something else," Gilhanna was saying. "There are two vials of hypo aboard this ship." He held a slim tube containing an amber colored liquid. "This is one. The other I have hidden away." He brought his arm down with a swift motion, and the tube shattered on the floor, its contents spreading in a shining stain. "If you somehow confuse the warp, I'll do the same thing to the other vial. How would you like that?"

Reese said that he wouldn't.

"Further, if that isn't enough, I'll make you a promise, Reese. I keep my promises. If you foul up this venture, I'm going to leave you in space with enough air in your plastisuit to last you a good long time. You'll die, of course —but that would be a horrible way for an SF to die, wouldn't it? All alone in space, with the voices closing in around you, with nothing under your feet but a lot of vacuum—and voices... Think about it, Reese.

"For now, I have business up front with the blasting crew. I trust you, so whenever you're ready, you can take us into hyper. Incidentally, did you know that they say space-fear is particularly strong here at the Hub? Well, I'll see you in a few minutes."

●

A MILLION million stars. The center of a galaxy. Still, space was empty—one feeble candle in a forest glen at midnight would cast more light. And then the stars twisted and spun, leaped about chaotically, danced crazy dances and faded into a murky whiteness. Reese sighed, spun around in his chair and faced the woman.

"Well?" she said.

"Well what?"

"We're in hyper—but heading where?"

"Where Gilhanna wants. A thousand miles this side of the rebel fleet. What could I do, Lee? The voices are faint now, so faint that unless I think of them overtly, I hardly hear them. But they can increase. They can—Lee, you couldn't know what it's like!"

"No?" Wordless, she reached into a pocket of her tunic, came out with a billfold. "You'll find my visa in there."

Dumbly, he opened it. The big black letters "SF" stared at him boldly, mocking—

That could explain so much.

She said, "You can't change it now, can you?"

"N-no," he admitted. "We're warping through straight on course. I couldn't alter that if I wanted to. Lee—" He reached out for her, wanted to take her in his arms, to kiss her, to show her in that way that he was sorry, maybe to hold onto her for strength, he didn't know. But she evaded him, flicked a lever and waited for the door to iris open. "I'm going forward to the blasting room," she said.

He followed at her heels, half running to keep up with her. In his mind —and in hers too, he now knew—the voices grew louder.

A warship's lethal weapons are located in the blasting room. They're mounted in such a way that they can

swivel a hundred and eighty degrees, and for that reason the blasting room is not closed off like the rest of the ship. Yawning circular ports are spaced at regular intervals, and the blasters are so calibrated that they will not fire until their snouts coincide with one or another of these holes which peer out into space.

In the airlock adjacent to the blasting room, Reese donned his incredibly light plastisuit, the spaceman's answer to the bulky vacsuit of the previous century.

TECHNICIANS checked their guns. Gilhanna strutted back and forth, staring every moment out into the murk of hyper space.

"Ah!" he called. "Reese. Will we be out soon?"

Reese grunted something into the radio strapped to his chest, and then, all at once, the whiteness disappeared. In its place—the speckled vault of space, and a dozen tiny mibs straight ahead, reflecting the blood red sun...

Gilhanna's fleet closed in. The mibs grew to tiny teardrops, to ships, old gutted ruins for the most part, patched up for a final glorious—and hopeless—dash for freedom.

The voices plucked at Reese's brain —then plucked more insistently. He hardly saw Gilhanna shouting orders to his technicians, hardly was aware of the first rebel ship splitting in twain nearby, the debris cascading out from its sundered ruin. He sobbed and he looked at Lee. Her mouth hung open as if she were screaming, but he heard nothing. She'd turned down her radio, accidentally or otherwise, and her mouth hung open. Her eyes bulged. Silently she screamed and screamed...

The well-known impulse came again, and Reese fought it. *Jump out, come on, now—it'll be a cinch. Just step through one of those yawning ports—* Voices plucking, tugging, pulling, vague shadows of thoughts which might become clear if he could join them there in the vault of space!

For Lee the summons must have been more insistent. One moment she stood there, swaying, staggering. The next, she stepped up onto the sill and dropped out into space.

Reese ran to the port, peered out. Lee floated almost within reach, held by the slim bonds of the ship's gravity. Below her, a second rebel ship caught a fatal blast from one of Gilhanna's warcraft, and it split in two like a rotten stick. The voices clamored, but for the moment at least, Reese fought them off, leaned half out of the port and stretched his arms toward the woman. He missed by inches, stretched out farther still—but then a near miss by one of the remaining rebel ships knocked their own gravity haywire, and when Reese picked himself off the floor, Lee floated in space, tumbling end over end slowly, a hundred yards away.

Reese moaned, ran to the wall, pulled down a jet-belt, fastening it about his waist with trembling hands. He stood poised at the port for a moment. Gilhanna was shouting something, he couldn't tell what. And then he leaped.

When he reached Lee and took her in his arms half a mile from the ship, the voices began to make sense. Nothing slow, nothing gradual about it. Suddenly, they formed words which spoke inside his head.

We've been a long time contacting one of you creatures of flesh.

He looked at Lee, asked: "Do you—hear it?"

She returned his stare mutely, her radio still not working; but she'd stopped her screaming.

You live on the surfaces of planets, we live in space. You know, for a long

time we doubted your existence. It's caused quite a stir...

"What are you?" Reese's mouth was very dry as he spoke.

We are life. We are sentience. So are you. Is it so strange? More strange, indeed, that life can exist in a tiny, grubby thing like you. Take my body now—that's what you would call it, a "body". It fills a cubic light year of space, but it weighs only—ah, one ton.

"That did it," Reese said aloud. "I couldn't stand the attack this time. It drove me insane—"

That's ridiculous. And what attack are you talking about?

"Space-fear. Voices, half-formed thoughts which pluck and pull and twist—"

By space! Then our thoughts exist on a frequency which some of you can grasp. If they damage, we'll change them, of course. We did not know. How wonderful it is that there are creatures of sentience as wide apart as we are. A great gulf between us, and yet, and yet...

REESE WAS beyond disbelief. The voice was there, talking to him patiently, as to a baby, and he could do nothing but accept. "But how can you exist in a vacuum?" he said. "Tell me that and maybe I'll believe—"

How? Who said anything about a vacuum? There is more matter drifting about freely in interstellar space than there is matter in all the stars of your galaxy. What do you need for the creation of life, my friend? A spark, a brief spark—which can be obtained at the core of certain nebulae, just as it can be obtained in your oxygen atmospheres. No, the stranger thing is that you can exist, planetbound except for your puny metal carriers...

Yes, Reese had read that somewhere —more matter in the void between the worlds than on the worlds and their suns. It was true. And wouldn't it be foolish to reject the further revelation of life? Where there was carbon and hydrogen and oxygen and nitrogen—and where cosmic forces could touch off a spark...

A bargain. We are prepared to make a bargain.

"Hunh? What say?"

A bargain. Service for service. Our thoughts bother you?

"Damn right they do. About one out of fifty of us, actually, but it's enough."

Very well. We can retreat with them to a different frequency.

Reese felt giddy. Somehow, the space-fear had left him, and the voice spoke lucidly, simply, softly. But what price could a totally alien being demand for the removal of a blight which made life uncomfortable for millions of people?

It is a small thing, I assure you. You have something which you call a warp of space—something which bridges the gap into a new dimension and then out again? It disturbs. It creates images of horrible solids, of confining spaces, of cubes and globes and prisms.

The voice carried with it an aura of loathing. *Stop it. Oh, not the brief transient flashes when one of your metal carriers darts momentarily through hyper-space. I refer to the more permanent form, to the space-warp here at the Hub. Destroy that. Can you?* Alarm crept into the voice. *Can you do that?*

"You bet I can!"

A sigh, a sigh of pure ethereal contentment. *Then farewell. You'll not hear our disturbing voices again. You know, we consider them quite beautiful. Well, good luck, creature of flesh...* The faintest suggestion of a chuckle, and then the voice faded, was gone. Reese knew he never would hear it, or anything like it, again. Nor would Lee. Nor would anyone, ever.

Lee in his arms, he jetted back to the spaceship.

HE PUSHED her ahead of him through the port, tumbled in him-

self right behind her.

"Five ships blasted," Gilhanna sneered. "It's slaughter, as I expected. Won't those fools ever learn?"

"That's enough," Reese told him.

"What do you mean, enough?"

"I mean the war's over. Now!" He moved forward quickly, backing the bigger man into a corner. But then Gilhanna laughed.

"You puppy—you stupid little puppy! I'll break you in half."

They came together, their plastisuits pushed back against their clothing by the contact. Reese got the second biggest surprise of his life when he felt himself lifted high overhead, felt Gilhanna's massive hands digging into his flesh. Then he was hurled across the room, and he crashed with bone-jarring impact against the far wall. Gilhanna roared, "Do you think I got where I am today by pussy-footing around?"

Reese stood up groggily, and they plunged together again, grappling. He caught a brief glimpse of Lee holding the two technicians at bay with a hand-blaster.

Gilhanna found the going more difficult this time, but he got Reese down on the floor and he sat astride the warp-engineer, his fingers groping through the thin plastic for the neck. Reese squirmed and twisted, struck short hammering blows at the face leering into his own. With an oath, Gilhanna released him, and they tumbled over and over again.

Reese came out of it on top, pounding his fists at Gilhanna's head. The man could take it, could—no, now he was relaxing!

A trick! Gilhanna reached around to the back pocket of his plastisuit, came up with a knife. Reese blanched. The vacuum of space filled the blasting room. Gilhanna wouldn't have to deal him a mortal blow at all. He'd merely have to rip the suit...

Sweat ran down Reese's forehead into his eyes. With both hands he forced Gilhanna's wrist back, back. The knife gleamed dully. Just a scratch...

Gilhanna lunged upwards, and Reese caught the blow on his heavy gloves, deflected it. Gilhanna's hand fell back toward his own chest, and horror contorted his features as he tried to check its momentum. It sliced home—just a six inch tear.

Gilhanna's hands darted jerkily toward the rip, tried to force the edges back together. He died that way, a quick layer of frost covering him under the plastisuit with a translucent sheet as the cold of space licked in and condensed his body moisture...

●

"CONTACT their leader," Reese told Lee later. "He'll call it quits when you do. Then we'll have a meeting on Gilhanna II and decide what's to be done. This System's rich enough to ship sufficient water to III by tanker, and the answer's probably something like that."

"First thing," Lee reminded him, "is to destroy the warp. Sure, I heard everything out there too. Probably, although they couldn't destoy the warp, they could damage it at times. Amazing, isn't it? I mean, creatures like that—"

"Hell, that isn't the amazing part of it. Like they said, matter exists out there too, so why shouldn't life? Here's what's amazing: they gave us space-fear without knowing it, and we gave them their equivalent—I guess you'd call it solid-fear—the same way. Sort of poetic justice, hunh?"

"Sure, but—"

"Will you stop talking and let me see if I was right about what kind of a gal-friend you could make now that you're not ornery anymore?"

"Me, ornery? You, you mean—and listen, someone's been pushing me around all my life, and now that that's over I don't want—"

"Shut up and let me kiss you."

As it turned out, they both liked the idea immensely.

TODAY AND TOMORROW

A READER, who writes in to express relief upon our decision to cease-fire on the endless discussions of The Hoax, expresses wonder at "the gullibility of science-fiction readers, who usually talk as if they believed they were more intelligent and alert than anyone else, but who seem to be even more susceptible than others when it comes to scientific-sounding nonsense. But perhaps I am being unjust; perhaps this represents only the less mature sections of the science-fiction audience, and those who behave in the silly fashion that has been stamped on all science-fiction readers would behave no less ridiculously in any other field of enthusiasm."

And it seems to me that this reader has hit the nail, in both instances—that he has stated the general public attitude toward science-ficion enthusiasts, and then followed it up with a modification which is more nearly a report upon the actual facts of the case.

Our reader may be thinking of the article which recently appeared in "Life" magazine, one which is factual enough, in that nearly everything it reported can be shown to have been true—but which, sheerly by the insistence it made upon the frequently irrational "fads" in what is loosely called the "fan movement", gave a distorted impression. I think the peruser of the article is most likely to recall having read that science-fiction readers believe that the world is controlled by little men in caves, and that they are all sold on The Hoax. (Not that the article specifically stated either proposition, but that it was written in such a way that these two particulars would stand out most strongly, and a careless reader might well decide that this was what the article said.)

Actually, you can't lump all science-fiction readers, or the "fans", together in one group and then make assertions about characteristics of the "science-fiction reader", or "science-ficion fan", which will necessarily apply to each and every individual. There is only one such assertion that can be made—namely that they all have read, and may continue to read, stories which can be classified as "science-fiction"; but this report tells *nothing else* about any individual in the group.

So far as claims to various and sundry brands of "superiority", on the part of science-fiction fans go, such claims have nearly always arisen from individuals who were at the chronological age when they "knew everything", anyway—a period which nearly all of us go through. (Some never emerge from it, which accounts, partly, for the middle-aged teen-agers one finds, and not solely among science-fiction fans.)

THE QUESTION of susceptibility to scientific-sounding nonsense is another matter. First of all, is there any basis for considering science-fiction fans as more susceptible than others? On the statistical level, I'd like to see some figures before making any comment; it may just seem to be the case because, for some reason, the observor may "expect more" from science-fiction readers. (In which case, it seems to me that such an observor would be making the initial error of falsely imputing characteristics to "science-fiction fans" as a whole which they do not have.) Secondly, is there anything in the *nature of science-fiction itself* which might have the effect of making the reader more susceptible to, rather than more immune from, scientific-sounding nonsense?

S. I. Hayakawa has considered this question, in his review of The Hoax (see the Summer 1951 issue of *ETC.*), and I should like to quote a few sentences from his analysis of the problem:

> "...The art consists in concealing *from the reader*, for novelistic purposes, the distinctions between established scientific hypotheses, scientific conjectures, and imaginative extrapolations far beyond what has even been conjectured. The danger of this technique lies in the fact that, if the writer of science-fiction writes too much of it too fast and too glibly and is not endowed from the beginning with a high degree of semantic insight (consciousness of abstracting), he may eventually succeed in concealing this distinction between his facts and his imaginings *from himself*. In other words, the space-ships and the men of Mars and the atomic disintegrator pistols acquire so vivid a verbal existence that they may begin to have, in the writer's evaluations, "actual" existence. Like Willy Loman in *The Death of a Salesman*, he may eventually fall for his own pitch."...
>
> "The expository technique is...the elementary device of taking for granted the existence of things which do not exist, and then making assertions about them ('As he approached the planet Venus, Captain Wolf throttled his space-ship to a leisurely 8,000 m.p.h.')".

This is not to be construed as an *attack* upon science-fiction, science-fiction readers, or science-fiction writers; it is, however, a very cogent statement of the particular pitfalls into which both readers and writers may fall if they are not careful to separate *imagined maps of imaginary territory* from actual maps of existing territory—and if they are in the habit of confusing the map with the territory in any event. Dr. Hayakawa also notes that it is hardly surprising when a mass-producer of science-fiction comes up with a fictional science—particularly, I might add, when many persons who were *not* mass-producers of science-fiction have presented the world with fictional sciences.

"I like thish place. Nobody bothersh me—at least, they didn't until you got here."

A SECONDARY FIRST

by Gene L. Henderson

The members of the first Lunar Expedition were in for a rude shock—rather an uncouth one!

"EVERYONE fasten his crash belt," directed Dr. Lindstrom, drawing his own up tight in an endeavor to squeeze his thin body even closer to the padded control seat. He leaned forward to obtain a better view of their destination He frowned, shook his head and mumbled, "That's strange, the moon was directly ahead of us the last time I looked; now there's nothing but empty space."

★ There had been quite a bit of nonsense in science-fiction stories, but most of it has been dead-serious nonsense. This story, on the other hand... ★

"Try looking through the inspection port just a foot to your right," suggested a feminine voice caustically.

"Thank you, thank you. It's these glasses of mine," said the Doctor.

The same voice complained, "A fine ending for the first Lunar Expedition." Lindstrom looked around at a girl whose charms and curves brought an appreciative gleam even to his faded blue eyes. It made no difference to him that all their combination crash-flight suits were heavy, thickly padded and pressurized. To an experienced space man, it was obvious that there were extra angles and bumps distributed in the proper places.

"I'll admit that it isn't the way one of your Hollywood scenes would have portrayed it," observed Lindstrom. "But what more could you ask for in the line of publicity. That's what you came along for, wasn't it?"

Kathryn shrugged her spacesuit expressively and said, "True, but I thought I was getting a round trip ticket." She looked around the little control cabin. There was no one else in it, no one except two others, that is.

She gazed at the young man across the cabin, admiration in her brown eyes. Scraggly blond hair topped a face devoid of expression and terminated by a receding chin. The spacesuit—a boon to him—concealed a short, scrawny body. Still, she thought, there was something appealing, something irresistible about explorer Donald Gregg. Pehaps, she mused, it was the millions he'd inherited.

He was, indirectly, responsible for their present and seemingly hopeless predicament. Gregg had spent the greater part of his life in being the first human to tread on various parts of Earth. Finally, when the unexplored sections had ceased to be, the moon had beckoned and he financed the present expedition.

There was a sudden movement close beside her and she looked around at the remaining member of the quintet. (1) He was a short, fat, little man and sat back as far as he could. Besides that, he wasn't very tall. His eyes were closed and perspiration stood out on his head so she kicked him on the side of the leg and warned, spitefully, "Dr. Heinrich, open your eyes and face the triumph of your life; one of the first to reach the moon."

His eyelids slowly opened and small eyes peered out fearfully. There were two of each—which made it nice since it came out even. Kathryn shuddered as she thought of the effect that would be created by a third eyelid opening if there were no eye under it.

HEINRICH groaned, then said, "Ya, und one of the first to die on the moon, maybe. All because there is enough fuel to land safely, if ve are lucky, but there vill not be enough to return to Earth without crashing." He sighed noisily before continuing, "Better it had been if I had constructed another fuel tank that would fill this cabin."

"But then there wouldn't have been room for a crew."

His head nodded slowly in agreement, "Ya, dot is the only thing wrong with such a plan." Then his face brightened with inspiration and he exclaimed, "But dot vould be good. If there had not been room for a crew, then we would not be here."

Kathryn's brow furrowed with thought. "That last part I'll buy, but something sounds wrong with the entire idea. Anyway, I thought you were also doubling as astro-navigator. If we hadn't have been way off course and had to correct, there'd have been plenty of fuel."

"Dot was not my fault," denied Heinrich indignantly; "it was of Earth astronomers."

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(1) This could prove confusing since there were only four members aboard the space craft. However, a fifth man had accidentally been left behind on Earth. Either he was one day late for the blast-off, or the ship was one day early—historians will long debate the point.

Kathyrn laughed merrily.

"No," insisted Heinrich. "Dot is right. Look, even a school child knows that for a rocket ship to reach the moon, it would not be pointed directly at the moon when launched, no?"

"Yes."

"There," he said triumphantly. "I carefully observed the position of the moon in space und then pointed our rocket in another direction." He sank back dejectedly. "It is too bad that it was not the right direction and proves the astronomers wrong."

As much as she admired scientists, Kathryn found the discussion rapidly going over her head and directed her attention back to the silent explorer. He sat with a frown on his miserable-looking but luxury-accustomed face.

She asked, "What's the matter with the great financier at the pinnacle of his success, computing compound interest?"

Donald gazed at her and reproved, "Really, Kathy, you don't have to be so flippant at such a time. I don't mind spending money but, in this case, I thought I was getting the best." Lindstrom stirred at the controls but said nothing.

The explorer looked at the fat little Heinrich contemptuously and remarked, "Look at him. Supposedly an expert in the field of rocket fuel research and now what happens? All he can do is sit there and tremble." (2)

Before the other could retort, a lurch of the rocket flung them against their seat straps. Lindstrom's hands flew over the controls as he applied full power to all forward tubes. Kathryn's head throbbed as the blood rushed from it; then she lost consciousness.

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IT SEEMED like hours later to her that she came to as Lindstom was lifting her from the seat. The clock disclosed that it was hours later.

"I just fainted," she smiled weakly. His long face relaxed with relief. "No, you're wrong. Back on Earth you would've fainted but here in space, one blacks out. At any rate, we're down safely."

The entire party began struggling out of their heavy crash-flight suits and into thin, plastic over-alls that were topped by a transparent helmet to which were attached tubes leading to oxygen tanks.

"Imagine!" enthused Donald, "the first humans on the moon. Now for a look outside."

The effects of the lesser gravity already made Kathryn feel giddy and light as if she were walking on air. A quick look disclosed that she was—that is, she would have been, had there been any air—her first step having proven too strong. (3)

There was a considerable drop to the airless surface of the moon and the innate gallantry of man wherever he might be was never more apparent to Kathryn. All three men moved quickly to one side so that she would have an unobstructed fall to the rocks.

Fortunately, they were on the shadow side of the satellite and the reflected light of Earth made it almost as light as a clear day back on that planet.

Donald and the two doctors were examining the edge of the small plain on which they had come to rest. Kathryn looked back at the rocket and stiffened with amazement. The moon was

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(2) Biologically, the explorer was not entirely correct. Heinrich had spent almost a lifetime in his schooling alone. His knowledge of special fuels required for space travel was undoubtedly superior to that of any other man on Earth. Specifically, he was quite capable of standing up and trembling.

(3) An explanation of gravity is quite simple when one considers that, with due allowance for all factors, that they will, in all probability. Once apart, there can be no compromising of the forces although one must admit that the introduction of a negative figure to infinity will. Therefore, down is down and up is another direction which calls for an entirely different equation.

supposedly incapable of supporting life, such as it was known and defined on Earth, but a two-headed and gaudy colored lizard-like creature was industriously clawing at a bright piece of cloth on one of the rocket's blast tubes.

She slapped Lindstrom with such force that he fell to his knees. "Look!" she screamed, pointing at the creature. All three turned in the direction of her outstretched arm. (4)

"Impossible!" exclaimed Dr. Lindstrom.

"Incredible!" echoed Dr. Heinrich, endeavoring to impart originality to the conversation. Donald saved his breath and, instead, moved behind Kathryn in the event that the creature should attack them.

The two doctors rushed toward the lizard, which saw them coming at the last moment and scurried off. Lindstrom was the first to reach the tube and fondled the cloth reverently. "Imagine," he said, "this warning flag survived all the searing heat and travel through space."

"Most remarkable," agreed Heinrich, puffing from the unaccustomed effort. "It is an incident our colleagues back on Earth will find hard to believe if we succeed in returning."

The reminder that they might become permanent residents of the Moon brought the party back to Moon. They set out for a tall spire at the edge of a range of small hills, which were only about a mile away. They were almost there when Donald, leading them, stopped and pointed wordlessly to a point off to one side. The others immediately saw the dark opening of a canyon close to the spire, but caught their breath at the sight of a gleaming metallic pyramid in front of the dark opening.

All were eager but kept noticeably closer together as they approached the shining metal. They stopped a short distance away, peering with curiosity.

"It appears to be composed of round, cylindrical containers of some sort," observed Donald.

"Ya," agreed Heinrich, "maybe it could be fuel of some sort we could use."

"Better not touch any of them," warned Lindstrom, "some appear to have openings in one end."

BEFORE anyone could stop her, Kathryn darted to the mysterious objects and grasped one. Holding it up, she exclaimed triumphantly, "How right you are, Dr. Heinrich; they are fuel containers of a sort." The others stared at her in astonishment.

She answered their unspoken question by continuing, "One of the oldest of human fuels, pre-dating even the internal combustion engine. In short, gentlemen, what you now see is a graveyard—empty beer containers to be more specific, and made in the U.S.A."

"Impossible!" exclaimed Donald and leaped forward to disprove her statements. Kathryn felt a momentary surge of pity at the stricken look on his face when he saw that she had been speaking the truth.

"The trail of cans leads back into the canyon; we may as well follow them," Lindstrom said.

Without further word, the four started following the trail of empty beer cans. They rounded a sharp bend in the narrow canyon and were confronted by a low metallic building squatting across their path, completely blocking the defile from one side to the other. There was a brief pause, then Donald and Lindstrom moved forward to investigate. Heinrich mournfully inspected an empty can and half murmured to himself, "Vat a pity."

They found an airlock and were soon inside the darkened interior. "We might as well remove our helmets,"

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(4) The discerning reader will immediately wonder how, on an airless world, speech without radio assistance would be possible. It is, admittedly, a good question.

suggested Lindstrom; "there appears to be air."

"It's sure good to not be breathing that canned stuff any more," said Kathryn. She felt inside the door for a light switch and flooded the room with white brilliance.

They blinked momentarily, then simultaneously spotted the form of a man lying on the floor near additional cans. There was a sharply indrawn, "Oh-h!" from Kathryn.

"He must have been wrecked years ago and used his space ship to construct this hut," hazarded Donald. "His body is remarkably well preserved from what I can see."

"Pickled is more apt," piped up Kathryn. Her face had now regained color after the initial shock.

The "body" sat up groggily and glared at them through blood-shot eyes. "Whash the matter, whash the matter?" he demanded, "what're you selling?" He stopped for a moment, blinked, then asked in blurred and thick tones, "And how did you get here?"

Kathryn giggled hysterically and collapsed into a nearby chair. Her companions were still speechless. The man's eyes swung to her so she felt compelled to answer, "We were just wondering how you got here. We were billed as the first humans to take off for the moon."

"Ha!" was his only comment. A gleam of admiration came into his eyes as they focused on Kathryn and he declared, "Shay, you're quite a doll."

THE CONFUSED Donald had by now regained most of his composure and asked, "How long have you been marooned here?"

"Marooned?" repeated the other, laughing ribaldly, "Thash a good one, Pete Larson marooned! I'm not marooned, I come and go whenever I wanna."

"But where's your ship?" persisted the wealthy young explorer.

"Ship? Oh, you mean old Betsy. She'll be back a couple of days from now with another load of beer."

This was too much for Donald and he sat down while the two scientists looked at each other. Lindstrom took over the questioning. "Ah, you mean you've made the trip more than once?" he queried.

"A couple. I like thish place better; nobody bothersh me—at least they didn't until you got here. The place is getting crowded."

Kathryn had to laugh at the crestfallen look on Donald's face and the amazed scientists who were having an impossibility jammed down their throats as an actuality. "I can imagine you would be left alone," she gasped weakly.

"But who are your crew, what kind of a ship is it, who was the designer and who did the research?"

Pete drew back belligerently, "Shay, you're sure nosey. I don't have no crew. I built old Betsy and not from any plans—jush the way I thought a space-ship should look. She flies back and forth on a radar gadget I built, and my brother loads her up back on earth." He slumped back, holding a hand over his eyes and let out a loud groan. Lindstrom shrugged helplessly.

Heinrich waddled closer, visibly excited, "Vot did you use for fuel in your ship?"

There was another groan from the prostrate Pete as he answered without looking up, "Something my brother brewed in his still between regular runs of mash. Pretty powerful."

"Dot I vould like to see," enthused the German. "Maybe you vould be having some here?" Donald watched hopefully.

"Naw, why'd I want it when I have enough beer?"

"But ve need some."

"Naw you don't. Jush take some of my beer if you want a drink; it won't burn your mouth like the other stuff does." He raised up suddenly, "Why don't you let me sleep? Jush when I

find a nice quiet place to drink and sleep it off, someone always follows me. Now the place will probably be overrun with tourists." He hid his head under a blanket and was snoring almost instantly.

THE THREE men and the girl retired to a corner of the room for a conference. "We've got to do something," insisted Donald. "The credit for being first on the moon can't go to someone like that." He pointed with disgust at the lustily snoring Pete.

"And why can't it?" demanded Kathryn.

He stood erect, puny shoulders thrown back. "It just wouldn't be right. All through history, the men who have done heroic deeds such as this have been held up to the younger generation as heroes, someone whose footsteps they might do well to follow." He looked down at her, eyes shining fervently as he continued. "Men who put all else behind them and sometimes sacrificed their lives so that mankind as a whole might advance and better itself."

Kathryn stood up and looked down at Donald. "In other words," she summed up sweetly, "you're more suited to be the world's hero than he is—correct?"

The explorer's face reddened slightly at the mocking light in her gray eyes. Both of them were gray. "It's easy to see that he's nothing but a common drunkard. (5) Can't you just imagine what would happen if they were to build him up? He's bad enough but you've already heard reference to a brother who operates an illegal still somewhere in the hills. What will all of the young kids in the country think when they read of all that? How will they react?"

"Probably they vould make the stuff instead of just drinking it," offered Heinrich. "There would be stills all over the country."

Lindstrom had said nothing so Donald eagerly asked, "What's your opinion, Doctor?"

"Well, it is a great shame that all of our work and research should have gone to naught and by such a character. Scientists will become a laughing stock when the world learns that such a person stumbled onto facts that took us years to dig out."

"All the more reason that he should get full credit," hotly declared Kathryn. "All of you are thinking of nothing but your own personal pride. Besides, he's already here; what can you do to alter that?"

"No one but us and his brother on earth knows that," said Donald softly.

The suggestion behind his words hung heavily in the air and Kathryn looked with horror upon the three men. Donald and the German avoided her eyes while Lindstrom stirred uneasily and said, "First we'd better think of a way to return."

He went to another door at the side of the room, one they had been unable to open, and applied all the force he could to it. The other two men came over to help him but could do no better.

"A mere locked door can't baffle two scientists," Lindstrom said irritably. They studied it from all angles and computed stress with variant temperatures. Sheer logic was about to triumph when Kathryn complained, "I'm hungry."

DR. LINDSTROM looked at Dr. Heinrich and drummed fingers on the wall. "She's hungry," he mimicked, restraining himself with remarkable self-control.

"Ya, she's hungry, I heard her say it."

"Well, we can't seem to find any

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(5) A common drunkard is one with a low income who frequents low dives as a rule, drinking beer, watching ribald floor shows, and in general having a rip-roaring good time. Its most disgusting feature is that it's inexpensive.

food, so be a gentleman. It's a long walk back to our ship and the stuff will be heavy."

Heinrich arose reluctantly and admitted, "Dot is true. All right, I will open the door for her when she does return."

"Me go out?" exclaimed Kathryn. "Oh no; not when there's probably plenty of food behind that door."

Donald moved out of the way and suggested sarcastically, "You're right, of course; why don't you bring some out?"

"Certainly," said Kathryn and, grasping the door firmly, pushed it to one side. "I knew all the time it was a sliding door; I just didn't want to spoil your fun."

She looked inside and saw some canned food and an immense store of beer. "Practically nothing but brew," came her disappointed voice.

Heinrich pressed forward and said, "Ya, dot is right." Only he didn't sound disappointed. Then he snapped his fingers and exclaimed, "Aha, I have it!" The other three edged away nervously.

"I mean with the beer we are having nothing to worry about." They still gazed, uncomprehending. "Beer has in it alcohol," he explained. "With a still ve could extract it and make a fuel. Not much but enough so ve could land safely on Earth."

It was decided that, since Pete might object strenously to having his stock of beer depleted merely for burning in a rocket, Kathryn's part of the project would be to keep his attention away from their activities. To her surprise, she found that he was in reality very likeable and quite well educated. Periodically he went off on a binge and didn't like to have people around when he did so, and had decided on the moon for a hideaway.

During one of his more sober moments, he looked at Kathryn with admiration and surprise, "Funny, I never thought I'd like having anyone here with me but it isn't such a bad idea at that. I sort of go for it." She reddened under his frank gaze and hastily changed the subject.

The men had completed their still but Heinrich was at a loss as to what could be used for fuel. Finally, in the course of exploration, Donald found a lean-to in back of the pressurized cabin in which was stored a considerable quantity of alcohol for cooking and heating.

"Vat a lucky break," said Heinrich.

"Why it'll save us days at the least," added Lindstrom.

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THEY SET to work transferring it inside and soon had the still in operation. The freely perspiring Heinrich poured another gallon of the fuel alcohol into the burner while Lindstrom removed a freshly distilled quart from under the outlet. (6)

At last, one evening, Heinrich announced that they had a sufficient quantity for the return to Earth. Pete was snoring heartily as usual and Donald motioned to the protesting Kathryn to be silent and don her spacesuit.

"Sh-h," he cautioned in a whisper. "We may as well leave quietly while he's still unaware that we used almost all of his brew."

The protesting Kathryn was forced to don her suit and the party spent the night in the rocket, awaiting the proper moment when Lindstrom calculated they could land in the United States with a minimum expenditure of precious fuel. They left the computation of their orbit between the Moon and Earth to Heinrich, who was determined to not make another mistake that might prove fatal this time. He labored on through the night, almost to the blast-off time. At last he flung himself back with relief and announced triumphantly, "It is finished."

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(6) Author's Note: Ask them, I don't know.

In spite of her worry concerning Pete, Kathryn looked at him with frank admiration in her pink eyes. She had always looked up to men who could utilize higher mathematics.

"Ve will point der rocket directly at the Earth," said Heinrich. Even Donald looked at the doctor with an emotion almost approaching respect.

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THE TAKE-OFF was made without incident and Kathryn found herself gazing longingly back to where Pete continued his happy existence. She watched for the atomic flare that would tell watchers on Earth that they had commenced a return. As she looked, there was a bright flash, then a mushrooming cloud of dust and smoke whose shape was all too familiar to anyone who had seen newsreels of the Bikini explosions.

She gasped and turned around to accuse wildly, "You beasts, that signal explosion came from the line of hills and not from out on the plain. You—you murdered Pete!"

"Now, now, Kathy," soothed Donald, "those are harsh words. You're just imagining things."

"But I saw it!" she cried out, tears commencing to flow. "How could you?"

He turned from the fury in her eyes. "Perhaps it was wrong," he admitted, "but it's already over and done."

"I can report it to the authorities when we land," she threatened.

"But it would be your word against ours," he reasoned, "and it will be years before anyone will be able to reach the spot again excepting ourselves. And for myself, I plan on an immediate journey to Mars. At least I can be the first man there."

Between sobs Kathryn informed him, "You can rest assured that you'll never get credit for being the first to the moon. Enough can be learned from his brother to prove that he'd been to the moon even if I can't prove that you murdered him."

"I had hoped, Kathy, that you'd take a different view of the matter, but perhaps we can reach an agreement."

"Such as?"

"Since, as you admit, it would be impossible to prove anything against us, why not agree to say nothing at all and in turn Pete will receive full credit for having been the first man to reach the moon."

"Which will still leave you the only living men for people to worship," she pointed out bitterly. "All right, I agree."

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THE ROCKET ship was received with wide acclaim when it landed, and Kathryn found it impossible to escape the well-wishes of dignitaries and the grind of interviews and television-radio shows. Donald's legion of press agents managed to quite ignore the surprising revelation that another ship had preceded them and stated that all they had found was an explosion-twisted building.

Department stores reported a booming business in model rocket ships. The Russians claimed that they'd sent a rocket ship to the moon years before and found it worthless so never returned. Spike Jones recorded a No. 1 hit tune called, *Rocket-Bye My Baby,* complete with a trumpet belching forth flames. A famous author even ghosted a best-selling novel under Kathryn's name, called *The Moon and I.*

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The second expedition blasted off on schedule and Kathryn found it a relief to be away from all the noise and excitement of the past two months. The days sped by without event, their radar warning them of obstructions ahead sufficiently in time to allow evasion.

Then one day, while swinging sharply to avoid a hurtling meteorite converging on their path, Lindstrom called out a sharp warning and they heard innumerable clangings on the

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Did you think the cover was better than last issue's? .....

as good as last issue's? ..... not as good? .....

Did you think the artwork was better than last issue's? .....

as good as last issue's? ..... not as good? .....

Did you find the stories better than last issue's? .....

as good as last issue's? ..... not as good? .....

Were there any stories in this issue you did not like? .....

....

Whose letter in "Down to Earth" did you find the most interesting.....

General Comment .....

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outer hull of their ship. Finally came silence and they all heaved sighs of relief.

"No punctures," announced Donald after a hurried inspection. "What was it?"

Lindstrom shook his head, "I don't know. From the brief glance I had, I'd hazard a guess that it was a cloud of fragments from an exploded asteroid. Luckily for us they were small since we were forced to fly right through the center. I wish that..."

His voice trailed off as a sudden rattling broke out along one side of the ship, well up forward. Their faces grew white as each member of the party stared at his companions with apprehension. The rattling continued with no further developments or added intensity and Lindstrom gave his opinion, "Evidently a fragment caught in one of the forward firing tubes. We'd better remove it through the inspection plates. It could cause us considerable trouble in landing or even burst the tube."

All four donned spacesuits, then Donald and Lindstrom carefully removed the inspection plates providing access to the firing chamber of the tube. The air escaped with a blast.

Donald reached into the opening, drew several objects inside, then let them go with an exclamation, staring dumbfounded. Kathryn moved closer, then stopped, incredulous. She stooped and picked one up for a closer inspection, then shrieked with delight, "Pete must have left that night we were waiting in the rocket! Empty beer cans! We flew through a cloud of empty beer cans and he'll be waiting on Mars."

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THE RECKONING

A Report To Future's Readers

There seems to have been little doubt about the best-liked story in our July issue; Smith pulled one last-place vote, and one definite cat-call—the latter is in the reader's section. The 2nd, 3rd, and 4th place stories were very close, indicating general disagreement as to which was better. Dye avoided the tomatoes, this time, as did Noel Loomis, even though his offering came in last. Here's the way you rated them then:

1.	*Dark Recess—Smith*	2.00
2.	*Momentum—Dye*	3.22
3.	*And There Was Light—del Rey*	3.23
4.	*Ultrasonic God—de Camp*	3.33
5.	*In the Balance—Youd*	3.94
6.	*Remember the 4th—Loomis*	4.16

And since Alice Bullock and Alphia Hart received a tie for best-received letters, we'll send an original to both!

The Mystic Trance

By L. Sprague de Camp

There are various ways of going into "trances", and we have heard many wonderful reports about the results. But what really happens?

MANY MAGICIANS, in their own peculiar way, appear to be honest. Nostradamus and other diviners have "seen" the future, and sorcerers have communicated with spirits, by going into a state called the *trance,* in which they are neither awake nor asleep in the usual sense, but are only partly conscious of the surrounding world, and are keenly aware of certain ideas that run through their minds. This trance state—sometimes called the *mystic* trance—is a gateway to the land of magic, with its invisible fauna of angels, demons, ghosts, fairies, and elemental spirits. A "mystical" religion, cult, or experience, in this strict sense, is one that involves going into a trance in which you feel a union with God, or the universe, or some other large concept, and of gaining hidden knowledge by supernatural revelation or illumination.

Most major religions include mystical individuals, orders, or sects. The mystic trance is also important in many branches of magic, especially prophecy, sorcery, and necromancy. Psychologically, the mystic trance is closely related to hypnosis, somnambulism, splitting of personality, hysteria, and certain kinds of narcotic trance.

While some folk fall into trances of their own accord, others bring them on by artificial means, such as the drug cannabin (hashish or marijuana) from the hemp plant. This drug produces strange hallucinations, especially of distortions of "space" and "time," and of being two people at once. The ancient Scythians indulged in hemp-trances, and so did the Assassins, a gang or cult which terrorized the Middle East in the twelfth century. The Tunguses, Koryaks, and other Siberian tribes induce similar trances by chewing fly-agaric, the deadly orange-topped white-spotted mushroom which illustrators of children's fairy-tales use as background in pictures of the Little People.

Similar mental states have been brought on by other drugs such as opium, and by music, dancing, howling, whipping, alcohol, fasting, continence, anesthetics, and concentration. In India and Tibet concentration takes the form of focusing the mind upon a single thought, which may be a sound like the magic word *om,* or a mental picture of a spot of light. The Quietist monks of Mt. Athos contemplated their navels. In the West the trance is often induced by staring at a shiny object, such as a ball of glass or crystal.

When the trance comes on, the mystic goes into a semi-conscious state, often writhing and groaning, though some mediums and mystics deny that the trance causes them conscious pain. Mystics often call their trances "ineffable" or indescribable, but many have nevertheless tried to describe the experience. From these descriptions it seems that the mystic trance has definite subjective characteristics, including:

"Time." Although the trance does not usually last for more than half an hour, and seldom or never more than two hours, the subjective "time-sense" of the entranced person may be so upset that a second seems much longer than it does in the normal

waking state. On entering the trance the mystic passes through a dream-like intermediate state, replete with hallucinations. This gives way to the trance proper, in which he has his "illumination".

Hallucinations. During the transitional state (which is as far as some people get) hallucinations of voices, music, sights, or levitation occur. In the trance proper these hallucinations generally change to something more abstract. The mystic often "sees" the gods or saints of his religion. St. Hildegarde in her trances saw fires, lamps, a parti-colored woman, and a white tower, while the normally sagacious George Fox, the founder of Quakerism, saw the streets of Lichfield running with blood. George William Russell (the Irish poet "AE") had delightful visions of "pure and shining faces, dazzling processions of figures, most ancient, ancient place and peoples, and landscapes lovely as the lost Eden."

Emotion. The mystic is usually seized by intense emotions. He may feel that he is passive in the grip of, or united with, a superior power. Another effect is that of an intense joy or ecstasy. There is often a feeling of moral exaltation, as if the mystic suddenly knew that he was free of sin and mortality. If the trance is prolonged, however, joy may be changed to horror and despondency.

Photism. The hallucination of physical light is extremely common in accounts of trances: "And as (Saul) journeyed, he came near to Damascus: and suddenly there shined round about him a light from heaven"; "A Light perfectly ineffable shone upon my soul...like the brightness of the sun in every direction"; "All at once, without warning of any kind, he found himself wrapped in a flame-colored cloud."

Revelation. Besides the physical illumination, there is a sense of mental illumination or enlightenment; of having the secrets of the universe suddenly exposed to view. The simplest case is the sense that things have a hidden meaning, as when Charles Kingsley wrote that sometimes when he went walking: "I am oppressed now and then with an intimate feeling that everything I see has a meaning, if I could but understand it." In more profound trances, Jacob Bohme, the German mystic who flourished around 1600, "saw" the true nature of the Trinity, of the Three Worlds, of Good and Evil, and the workings of the whole cosmos. Along with this revelation comes a stong subjective conviction of its truth, expressed in such uncompromising terms as: "I knew that what the vision showed was true. I had attained to a point of view from which I saw that it must be true."

HOWEVER, this "truth" depends upon the prepossessions of the mystic, and the revelations of different mystics are not at all consistent. The Christian is convinced that men are saved through Christ; the Vedantist, that Brahman is the sole reality; the Yogi, that his *purusha* (spirit) is a discrete entity. Some mystics tell of brilliant ideas pouring into their minds too fast to memorize, but when the mystic tries to write these ideas down, gibberish results, such as: "Think in other categories," or "It escapes! It escapes!" Thus the trance caused an intense sense of knowing without any definite thing's being known.

The Fourth Dimensionalist Ouspensky described his trance sensations thus: About twenty minutes after beginning concentration, he became aware of a sense of duality of personality, as if one part of him were watching the other. He passed through a stage where he heard voices and, sometimes, music. The voices were of the sort you hear from mediums in their trances, and told him nothing he didn't already know.

Then he passed through a second threshold into a world of complex

mathematical relations, where designs and musical harmonies could be seen growing out of simple elements. In this world all the parts were interconnected and equally perceptible, and subjective things were interchangeable with objective. The mathematical relations were exemplified by sounds, music, designs, and rays of light. In this state, Ouspensky was unable to speak because every time he tried, his mind was flooded with millions of brilliant thoughts about the words he was going to use.

Furthermore, time was lengthened so that a second became tediously long. He saw ideas expressed as "hieroglyphs". The magical concepts of the Triad and the Four Elements were important, but ideas that Ouspensky disliked, such as Evolution, were not represented. In this state he heard but a single voice, which answered all his questions, though often with an enigmatic answer. That voice, he finally decided, was part of himself. Infinity seemed to be swallowing up everything, and Ouspensky became terrified lest he be swallowed up too. Something seemed to warn him not to venture farther into infinity.

William James, the great American psychologist, conducted a similar experiment upon himself by a nitrous-oxide intoxication, just after he had been reading about the Hegelian theory of the identity or synthesis of opposites. He received a startling sense of metaphysical illumination which included a conviction of the eternal truth of Hegelianism, and a torrent of ideas poured through his mind to illustrate this "truth".

He dictated as many of these ideas as he could, "which at the moment of transcribing were fused in the fire of infinite rationality", but when he came to read the result, it consisted of such drivel as: "By God, how that hurts! By God, how it *doesn't* hurt! Reconciliation of two extremes."

The mystic trance seems to be a development of the day-dreaming state common in childhood and adolescence, which normally disappears at maturity. I remember that in my own childhood I could, by gazing fixedly at almost any object with a strong pattern, such as a ceiling light-fixture, bring on a peculiar emotional state, a sort of *Wundersucht* wherein something marvelous seemed about to happen, and the pattern was about to turn into a wonderful scene into which I could project myself, as if the object were the doorway to a fairyland. When I reached maturity the habit died away, and I had forgotten all about it until I began to study the subject of trances a few years ago.

I believe that such experiences are not uncommon among immature persons. Mystics, instead of dropping the daydreaming habit when they grow up, retain and cultivate it until it becomes a kind of self-hypnosis into which they retreat from the disagreeable aspects of normal life. In extreme cases, some mystics such as the Hindu religious reformer Ramakrishna reach the point where they fall into a trance at the least suggestion, regardless of what they are doing at the time. Maladjusted persons incapable of the mystic trance achieve a similar escape by drunkenness.

WHILE THERE are all sorts of mystics, they have some characteristics in common. They tend to be ascetically virtuous, introverted, opinionated, egotistical, and individualistic, much concerned with their own salvation or psychic development. They vary in intelligence much as non-mystics do, but are apt to be strong on prejudices and emotional convictions and weak on analysis and self-criticism. No argument will shake their faith in the truth of their "revelations" no matter how absurd these may be. They are tender-minded, disliking science because it will not accept their convictions at face value, and because they find scientific learning tedious and the tenta-

tive, relative nature of scientific truth unsatisfying.

The effect of mysticism on its practitioners varies. People of feeble intellect and character may be stupefied to the point of complete uselessness, whereas those of strong mind and character, such as Ignatius Loyola, may be fortified in their native efficiency and resolution. After the East Indian psychologist Behanan had returned from America to India to undergo a complete course of Yogic practice under Indian teachers, while viewing the performance with critical Westernized eyes, he concluded that trances temporarily lowered his mental efficiency, but had no permanent effect upon either his intelligence or his intellectual outlook, while they improved his health and emotional stability. Scientifically, the effects of mysticism are not very well known yet. Perhaps the most we can say is that, like liquor, it is good for—or at least harmless to—some people in moderation, and bad for others in any degree.

Mystics' usual explanation of mysticism is that they have somehow escaped the bounds of mundane three-dimensional bodily existence to some spiritual or transcendental plane, in which they achieve union with God or their spiritual Master, and from whom, in this state of Cosmic Consciousness or *samadhi*, they receive a revelation of fundamental spiritual truths. But, when examined, the revelation is generally found to be an expression or rearrangement of the religious or philosophical ideas that the mystic already harbored or was interested in. Hence Christian mystics express their revelations in Christian terms, and Buddhist mystics in Buddhist terms. Evidently the mystic gets out of his trance very much what he puts into it.

NOW, I have a little theory of my own which I have worked out about the nature of the mystic trance, and which I am going to describe to you, but with certain cautions and qualifications. I am not a psychologist or psychiatrist, though I have been exposed to these sciences somewhat in the course of my career as a popularizer of science. I have submitted this theory to several people who were professional psychologists or psychiatrists, and the general verdict has been that it *might* be true, but that we can't yet prove it one way or the other.

Finally, even if this theory should turn out to be correct, I am quite sure that it is nowhere near so important as such discoveries as fire, the wheel, and the arch.

My own theory of the mystic trance is as follows: The active factor in human memory is commonly held at the present time to be the *forgetting* mechanism. The brain appears to be so constructed that, while all incoming sense-impressions are re-

corded automatically and permanently, most are at once thrust out of the conscious mind into the unconscious by the "forgettory", and stored there until they were wanted for reference. Evidently the forgettory is not an infallible mechanism, for sometimes it mis-files its index cards and cannot locate them, as when you cannot recall the name of an old acquaintance. But it tries to bury the less important sense-impressions (including recollections of thoughts and dreams) most deeply in the unconscious, and to bury unpleasant memories more deeply than pleasant ones in order to make life more tolerable.

I suspect that the mystic trance involves a breakdown of the forgettory, as a result of which vast masses of impressions rush into the conscious mind all at once. Most of these, having been long suppressed and forgotten, seem new to the mystic. In any case they come so fast that the mystic cannot examine them with a critical eye, but feels he's had a great and novel revelation. These impressions naturally correspond with the mystics' interests. A Brahmin who has thought long and intensely about Brahman, Atma, and Nirvana will have a large stock of memories of these thoughts stored near the surface of his unconscious, and these memories will quickly rise into consciousness and force themselves upon his attention.

The apparent change in the time-rate, which mystics report, is simply due to the fact that, since the forgettory normally lets memories enter the consciousness one at a time, like people going through a turnstile, we unconsciously tend to keep track of time by the rate at which such thoughts pass through our minds. But in trance, however, the rate of admission of memories is multiplied many times over, wherefore, since we are accustomed to just so many memories per minute, the arrival of a larger number in that period seems to involve a lengthening of the minute to accommodate them.

MEMORIES of pleasant events, lying near the surface of the unconscious, naturally rise to consciousness first. Each memory brings with it a bit of the emotion originally associated with it. The admission to consciousness of a multitude of pleasant memories and their attendant emotions creates the joy or ecstasy described by many mystics. If the trance is sufficiently prolonged, memories of misfortunes, sorrows, and humiliations will arise, and the combined effect of the emotions associated with these impressions will account for the sense of gloom and horror with which some trances end.

Finally, the photism or blinding light of the mystic trance can be explained as a memory of all the times that the mystic was ever physically dazzled as he walked out of a dark room into bright sunlight.

For the practical magician, the mystic trance is important mainly as an aid to divination and communication with spirits. The favorite Western form of divination-by-trance is crystallomancy, or crystal-ball gazing.

The term "scrying" better describes this pseudo-science, because genuine crystal is not necessary; glass, or any shiny object, will do as well. Scrying has been practiced with mirrors, jewels, little pools of water or ink, and (in medieval Europe) with polished sword-blades. The Mayas of Yucatan evidently used a similar method, for a polished ball of jade, probably used in divination, was found about twenty years ago at Chichen Itza.

Medieval writers on crystallomancy demanded that the scryer go through the magical mummery of asceticism, prayers, the drawing of pentacles (magical diagrams), the burning of candles, and the recitation of incantations. They were told that if they did not obtain visions themselves, they should fetch a virgin boy or girl of legitimate birth to scry for them, such persons being more successful in

the practice of theurgy because of their innocence. The real reason for using young adolescents, however, was the greater prevalence in this group of eidetic imagery—the faculty of calling up extremely vivid and solid-looking mental images, so strong as partly to blot out the real visual images in front of which they appear. The requirements of virginity and legitimacy, like the prayers and pentacles, are mere foofaraw. Modern crystallomancers do very well without such qualifications.

One modern scryer, who however made no pretensions to divinatory powers, was Mrs. A. W. Verrall, a prominent English psychic researcher around the turn of the present century. She saw faces in the fire and shapes in the clouds, and found that looking at polished crystal or glass in dim light was most effective in inducing such quasi-hallucinations. She believed that the pictures were built up from the highlights on the shiny object at which she stared, but the picture once formed was more real and spontaneous than an imaginary scene deliberately called up. The pictures represented animals, people, common objects such as a clock, and landscapes. In most cases the scryer was able to trace the origin of the pictures to memories of things she had once seen.

So, you see, there are two entrances to fairyland: one through mysticism, trances, and the sacrifice of the critical faculty; the other through the temporary suspension of disbelief which enables you to enjoy tales of fantasy and faerie with your imagination, and then to return to the world of reality and live by the laws that rule it. On the whole, since to live in the mundane world you need your critical faculty, the second procedure would seem to be safer; moreover it enables you to keep your intellectual self-respect—no mean possession. The choiee, however, is yours, since after all it's a free country.

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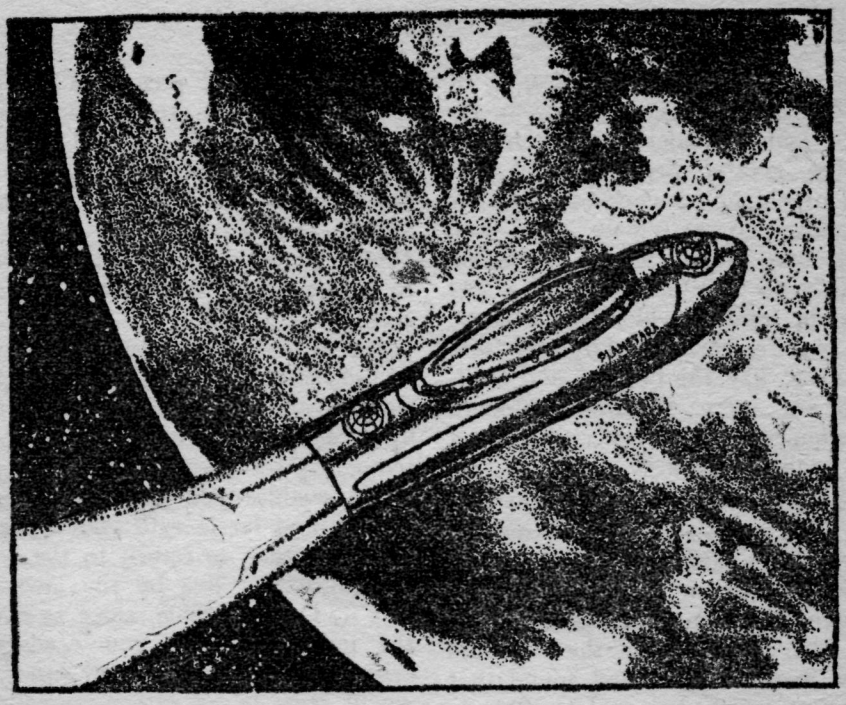

THE WAY BACK

by Margaret St. Clair

Suddenly, the planet on which they were about to land wasn't there any more...

"THE MEETING is open for suggestions," said the captain.

First mate Morris knotted his fingers together. "The real problem, sir, is, what's going to be the effect of our news on people? The *Eirene* was sent out to open people's minds to new possibilities, new horizons, and to divert their energies—" his tongue seemed to stumble momentarily— "to divert them, unh, from the wrong kind of thing. And when we get back and tell them..."

"There's certainly a strong popular belief in Martians," Dr. Hamilton said softly. "The public is going to resent being deprived of such favorite characters."

"Martians!" First mate Morris spoke with scorn. "If that were all—"

"I can't believe it yet," third mate Jeans interrupted. "It's always been seen through telescopes. Why, when I was a kid I had a little telescope, and I used to watch it. It went through regular phases from full to crescent. I don't understand. I can't understand."

There are times when a kind of madness is necessary...

As if his words had released them, they all began talking, the eighteen voices of the crew of the *Eirene*. "The dynamics...the balance of the solar system...optical illusion...the dynamics...the dynamics..."

The babble increased until Captain Symmonds had to rap desperately on his desk for order. "Quiet! Quiet! Yes, Dr. Hamilton?"

"We certainly landed on Mars," said the doctor. There was a faint smile on his thin face. "Nobody denies that, do they?"

"No," the captain replied briefly. "The artifacts are in the hold."

"Yes, Mars is all right," said the doctor. "But Venus?"

Silence. First mate Morris cracked his knuckles. Silence.

"It wasn't there," the captain said at last.

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A little before the meeting on the *Eirene*, Nannthor came in from prime space raft. He had a special report to make to the council.

"They have had a great shock," was the gist of it. "Their minds are open; it is a great opportunity. What we failed to do with a planet, we can do for a small number. Or we can send them back." He stood at attention when he had finished.

There was a wordless, voiceless, consultation in the vaulted council chamber. Council members, even more than the ordinary run of Venusians, are telepaths. Nannthor felt their thoughts beating like wings around his head. At last the sense of the meeting emerged.

"No," came the answer to Nannthor, "that would be cruel. What would become of them? But we will take advantage of the opportunity; we have another plan."

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"Last night I dreamed about that planet we were hunting," said third mate Jeans of the *Eirene*, two days after the meeting.

"Yeah?" said second mate Thompson. They bunked in the same tiny stateroom, and both were at present off duty. "What was it like?"

"Oh, like we thought it would be. A double star, blue and gold, very bright. Beautiful. But—you know how dreams are— I knew something awful was going to happen. I got scared looking at it."

Second mate Thompson put aside the tri-di chess problem he had been working on. "Did anything happen?" he asked, with more interest than accounts of dreams are usually accorded.

"No. Not really. It was just about to. But I woke up."

●

IN THE mess hall, Captain Symmonds and the doctor were arguing. The doctor on a space ship stands on a different level from the rest of the crew, and is consequently more immune to discipline. Hamilton was pressing his advantage.

"No, I won't let you hypnotize me," Symmonds said irritably. "Or any of the crewmen, for that matter. This is the third time you've asked me. Why? Why do you want to so much?"

"Scientific curiosity," Hamilton said, grinning faintly. "Or, putting it another way, I want to find out why none of us is acting like himself."

"The answer's easy; we've had a terrific shock."

"Yes, but that wouldn't account for what I mean. Not the sort of thing."

The mess boy came in with more coffee. Symmonds drank, remembering at the last minute to take the spoon out of his cup. "Well, what *do* you mean?" he said challengingly.

"I'll show you, if you'll answer my questions... When we started out, could we see Venus—the planet we were hunting—in the viewing plates?"

"Of course."

"Very well, then. At what point did it become invisible?"

The captain rubbed his head. "I don't remember."

"You don't remember; neither does any of the others, though it's a point of some interest. Well, do you remember looking for it?"

"I—why, of course I do. We beat back and forth in space for days, looking for it; it must be in the log."

"Maybe. One more thing. Has anybody, since that time, tried to pick up the missing planet in the viewers?"

"No. I've forbidden it."

"Why?"

The captain licked his lips. "It would—it would be upsetting to discipline."

"Would it? I wonder, now. I'm going to try." Hamilton got out of his chair.

The captain rose too, armored in dignity. "No, you're not, mister. I'm the master of this vessel; I forbid it."

Hamilton looked at him keenly. He gave a very slight shrug and sat down again. Captain Symmonds remained standing, his backbone rigid in his white ducks, his cheeks faintly flushed.

HAMILTON picked up one of the coffee spoons and began to draw patterns on the tablecloth with it. "This prohibition, captain," he said without looking up— "how long is it to last?"

"Until we're home again, mister."

"Oh. You want to get home?"

"Of course. *Tuatha kaiyar tarog.*"

"*De tarog.*" Hamilton blinked and drew in his breath. "You're right, of course," he said sardonically. "Home is a wonderful place, and we'll be glad to get there. But—was it *English* we were speaking then?"

Captain Symmonds tried to glare at him. "Of course it was!" he almost shouted. "You must be going crazy!" His lips shook.

"One more question, sir," Hamilton said softly and politely, "and I'll stop tormenting you.... You say we're going home. Very well; what is the name of the place?"

The mess boy's coming in saved the captain the distress of answering. "The astrogator's compliments, sir," he said to the captain, "and he wishes to report that we will enter the atmosphere of our target in six hours. He thought you might like to see it in the viewing plate."

Symmonds rose with alacrity and started toward the pilot room. Hamilton, uninvited, followed him. His hands were in his pockets, and he was whistling.

The planet filled the viewing plate. A curvature was distinctly visible. Three-quarters of its bulk was illuminated, and it was radiantly, dazzlingly, bright.

"Beautiful, isn't it?" said the captain. "Drop in a couple more screens, Jacks. It hurst my eyes." He smiled at the image as the screens slid into place.

"Yes, it's beautiful," Jacks agreed. "It's a pretty idea, sir, to think that our planet is like a beautiful woman who unveils herself only to her lovers. To the rest of the world, she keeps her beauties veiled in clouds."

"An attractive fancy," Symmonds said indulgently. The conversation slid into technicalities. Symmonds ended it by saying, "It will be good to get home again."

Hamilton, in the background, made a strangled noise.

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They made contact with the atmosphere in the predicted six hours, but it took them much more than that length of time to get through the clouds. Just outside of the planet's gravitational grip they passed one of the space rafts, those supreme achievements of home science, and exchanged signals and information with it, but as soon as the *Eirene* got into the cloud layer, she had to fly blind. There was a long period of anxious questions, of data fed into the calculators, scrutinized, and then fed in

again, before she reached the ground.

At last the ports were opened. The damp air poured in. And the *Eirene's* crew, beaming with pleasure, clambered out or, too excited to wait, jumped.

The shouting, waving, exultant crowd was all around them. Captain Symmonds was lifted on shoulders, wreathed with flowers, embraced. They carried him away from the landing field like a conqueror. The noise of cheering was deafening. And as the others followed him they were welcomed with equal generosity. Everyone smiled.

HAMILTON alone hung back in the shadow of the port opening. He understood, or at least half understood; and at this moment of triumph there were tears in his eyes.

Naturally of a skeptical and saturnine temperament, he had had an advantage denied to the others. In the preparations for landing, he had not been needed; he had used the time to disobey Captain Symmonds' prohibition. He had gone in the stern of the ship and, after a good deal of trying, had managed to pick up the missing planet in the viewing plate. Now—at least partially—he understood.

It was simple enough, really. The crew of the space ship had been the objects of a vast, benignant, sleight of hand. Kindness, Hamilton thought, must have inspired it; and perhaps the people who now welcomed the *Eirene* had had something to do with the strange pause in terrestrial war madness which had led to the hopeful, well-omened sending out of the peace ship in the first place. They might well have tried to avert the death of a sister world. For earth—

Hamilton had picked up the missing planet at last in the viewer, the planet the *Eirene's* crew was convinced they had been unable to locate. And the planet was earth.

She was stripped of her oceans; she was as dead as a stone, and as barren. Man had destroyed her. The blue and golden star would be blue no longer, and though the moon still circled around her primary, she rotated about a lifeless world. War had wiped out life on earth.

Hamilton held on to the edge of the port opening, blinking. When he tried hard he could remember, very very dimly, that the crew of the *Eirene* had seen the atomic explosion in the viewing plate. They had witnessed the death of their home planet. They had been sick with horror, torn with grief and hopelessness.

Their minds—earth minds, usually so closely guarded—had been open, Somehow, they had been pitied; the cloud of kindly, healing falsehood had begun to fall. They had been made to believe that Venus, or at any rate the planet to which they had been travelling, had eluded them, and that they were on their way home. They had come home now; but it was not to earth.

What good did his knowledge do him? Hamilton hated it. It was like a disease. He would forget it, let it slip from him. He would yield to the influence as the others had yielded; he would let the massed power of the minds on the planet where the *Eirene* had landed make him one of them.

Meantime, the Venusians had caught sight of him in the shadow. They crowded about the port waving, calling, throwing bright flowers at him. "Welcome home!" they shouted to the last voyager in their lovely voices, "Oh, welcome home!"

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FROM THE BOOKSHELF

Publishers are requested not to send fantasy selections to this department, as the volume of science-fiction books fully occupies the reviewer's time and space.

GNOME PRESS has sent me a copy of its second offering in its "Adventures in Science Fiction Series", an anthology entitled *Journey to Infinity*, "An Anthology", the jacket states, "arranged as a story of the imaginative history of mankind." I am afraid, however, that the very thing about this book in which the editor, Martin Greenberg, takes most pride is the very aspect of it which I find the least satisfactory. The stories are arranged in a sort of "chronological order" to set up this imaginary history, with brief paragraphs telling what occurs between episodes. It's a fascinating idea for an anthology, and I appreciate the care and effort which went into it—but a thing like this cannot be a partial success; either it comes off, or it doesn't; and for me, this one doesn't. The stories selected are stories which I found generally enjoyable when I read them in their original appearing-points in various magazines and a few, such as Asimov's "Mother Earth", Moore's "There Shall be Darkness", Merril's "Barrier of Dread", and Russell's "Metamorphosite" struck me as being outstanding. But the collection simply doesn't jell, nor can I see it as being worth the $3.50 the publishers ask for it.

From Grosset & Dunlap, Inc., I have received four of their $1.00 editions, namely: *The World of Null-A*, by A. E. Van Vogt; *Fury*, by Henry Kuttner; *The Island of Captain Sparrow*, by S. Fowler Wright, and *The Humanoids*, by Jack Williamson.

The World of Null-A is something of a milepost in science-fiction, inasmuch as this is the first novel in the genre to pay some sort of tribute to the Non-Aristotelian Systems formulated by the late Alfred Korzybski in his historic work, *Science and Sanity*. I say "pay some sort of tribute to", rather than "make use of", because, despite the copious use of various terminology to be found in the literature of General Semantics, Van Vogt's evocations of Null-A are strictly gratuitous, and what this novel most definitely is *not* is a picture of a possible future *based upon an integration* of General Semantics and the Non-Aristotelian Systems into the general stream of society. It does, however, portray people not too dissimilar from ourselves, who have adopted "catch words" from General Semantics, and who very likely consider themselves as living in a Null-A environment. (Certain individuals, of course, are assumed to have mastered the basic principles of Null-A, and benefited thereby; this is rather speculative, though, since no one in the book either talks or behaves in such a way. There is much spouting and mulling-over of handy little gen-sem abstracts, but this doesn't immunize anyone—particularly the hero—from all the confused semantic reactions necessary to make the story work out according to the author's plot outline. The reader, therefore, may be induced to look up the original sources for the story, but he certainly will not come away from this book with anything like an adequate idea of what the Non-Aristotelian Systems are about.

However, the big question about the book is simply: is it a good story? And the answer to that, for this reader, is "yes".

Fury, by Henry Kuttner, was a novel I enjoyed when it first appeared, and since I have heard nothing to the effect that it had been revised for book publication, I did not re-read it. Since it's unlikely that the three issues of *Astounding Science Fiction* can now be obtained at their original price, the $1.00 price is not exorbitant, and you will find it, I think, an absorbing, often thoughtful, adventure story with better than average writing and characterization.

The Island of Captain Sparrow, by S. Fowler Wright, is considered as something of a classic—the jacket blurb describes it as a "charming fantasy" and there are comparisons with *Green Mansions*. I read enough of it to satisfy myself that the phrase "charming fantasy" is applicable enough—but I can't say I found it compelling enough to finish. In this case, I'd suggest looking up the 25c magazine edition, or wait for a pocket-book edition.

The Humanoids by Jack Williamson is another matter. It originally appeared in two sections—a novelet entitled "With Folded Hands...", later followed by a three-installment novel, entitled "...And Searching Mind." I suspect that the publishers found the length of the two stories prohibitive, for what we have in *The Humanoids* is a revision of "...And Searching Mind", designed to stand by itself. What has been gained in this process is better integration of the novel, and the elimination of a bit of pulpish melodrama which wasn't really needed. However, the loss is considerable: "With Folded Hands..." appeared to be a complete story with a grim and overpoweringly hopeless conclusion; "...And Searching Mind" picks up to show that the conclusions drawn were false ones, and the impact has a forcefulness that is lost when the essential information of the first novelet is merely condensed into the background of *The Humanoids*. The story is still a fine one, and it does have a decided punch to it—but I cannot help feeling that more has been lost than gained in the book version, despite an improvement in literary presentation. It's well worth a dollar, but, in this case I'd recommend the obtaining of the March, April, and May 1938 issues of *Astounding Science Fiction* for "...And Searching Mind", while the original version of "With Folded Hands..." can be found in Groff Conklin's very fine anthology, *A Treasury of Science Fiction*. RWL

This department is for you readers, where you can discuss science and science fictional subjects in general, and your opinions of *Future* in particular. We will pay two dollars for each letter published, regardless of length.

Dear Mr. Lowndes:

Now that I have read a copy of *Future*, I am more than happy that it has appeared on the local stands. I was very satisfied to find that three of your authors were well known to me—their past stories, thaf is. But the magazine as a whole brought me great enjoyment.

It was not without fault, though a thorough coverage of errors is not really called for. I have included my "Reader's Preference Coupon", so you will see that I enjoyed *Out of the Atomfire* above all others. Seeing that it was my favorite, it would be most desirable that I should bring to light, (a) the faults contained therein, (b) the differences of opinion that I have concerning the theories used, (c) the happenings that seem un-motivated or obscure.

Having read the story twice so as not to miss any vital point in the fundamental construction, I feel I can readily criticize, argue about, and praise various excerpts from the story in question.

1. On page 15, right-hand column, PP3: *"He was sitting on the fire-fly surface of a great hurtling photon."* I always thought that a photon was a unit of light intensity, and although Webster gives no other meaning, it may be a type of particle. Is it?

2. Page 19, right-hand column, final PP: here the story tends to dismember the theory that the atomic-universe is the same as the stellar universe in miniature. At this point I think it would be of interest to point out some arguments which make the two universes identical in construction.

Many sceptics and disbelievers argue that the electron-worlds change their orbits many times per second when subjected to certain conditions, while no similar reactions are noted in the planet-worlds. It is practically a proven fact that the earth and Mars changed their orbits during recorded history, while it seems likely that Mnemosyne, an asteroid between Earth and Mars, must have shifted over from the asteroid belt. Venus, once either a part of Jupiter, or one of Jove's moons, shifted into a cometary orbit around Sol circa. 1650 BC, and then in 1400 BC fell into the place where it is today.

One might argue that in the atomic universe, these changes occur with extreme rapidity—while on the stellar scale, the changes occur once in a million years or longer. We must consider, however, that the frequency is about in proportion with the comparative sizes of the two systems. When we consider that the exchange of orbits of electrons occurs once every million electron revolutions or so, we see a vivid likeness between the universes.

One problem, above all others, seems to be unique in the atomic universe. That is the fact that the nucleus of an atom is com-

posed of neutrons and protons, while stellar suns seem to be unit globes. We find some comfort in the larger atoms, however. Uranium, for example, has two masses of protons connected by an hour-glass shaped cluster of neutrons, which are similar to the double suns and "indian club" suns in the stellar galaxies.

3. Page 24: Phaon's escape is so fundamentally simple, that one would think that one of the other un-converted workers would have tried it before, thus setting the guards on the alert for a re-occurrence.

4. I was pleased to see that the story included a special type of radio for use in the sub-atomic universe. Naturally, ordinary radio waves would be of such magnitude that they would be undetectable there. X-rays in the stellar universe would be about the same as radio waves to the atomic universe, or maybe even shorter waves would have to be used. The penetrability of X-rays is due to the ability of them to pass between the component parts of the atom, the way radio waves can pass between the component parts of the solar systems. To the eyes of an ensmalled man, light waves would be beyond perception, but there may exist a hitherto unknown wave that is smaller than cosmic rays, and that would be equivalent to light in the atomic universe.

5. Page 26, right-hand column, PP4: *"The invisible emanations struck a spire"* (on the neutron) *"a few feet away, which burst apart with a livid flash of brilliance."* While on Page 27, right-hand column, PP2: *"The neutron is indestructible and indivisible."* What bothers me is: How could he have destroyed the spire of the neutron, while later we learn that it is really indestructible and indivisible?

6. While traversing the 4th dimension via the neutrino, they must have also travelled through one of the other dimensions, too, because they appeared in the stellar universe, out in space. The atom solar system, where the neutrino was found, must have been in the Life-Givers' city on Earth.

7. I could find no explanation in the story concerning the method of moving from the stellar universe to the atomic universe via the neutrino. I assume that the neutrino doesn't have its equivalent in the stellar universe. (I can't imagine what it is if it has.) The story explains that the neutrino is an exit from the atomic universe,

[*Turn To Page* 90]

THOUGHTS HAVE WINGS

You Can Influence Others With Your Thinking!

TRY IT SOME TIME. Concentrate intently upon another person seated in a room with you, without his noticing it. Observe him gradually become restless and finally turn and look in your direction. Simple—yet it is a *positive demonstration* that thought generates a mental energy which can be projected from your mind to the consciousness of another. Do you realize how much of your success and happiness in life depend upon your influencing others? Is it not important to you to have others understand your point of view—to be receptive to your proposals?

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The ROSICRUCIANS
(AMORC)

Scribe B.E.L. The Rosicrucians, AMORC,
Rosicrucian Park, San Jose, California.

Kindly send me a free copy of the book, "The Mastery of Life." I am interested in learning how I may receive instructions about the full use of my natural powers.

Name.....

Address.....State.....

but what is the entrance? Not the neutrino! You might clear this up for me.

You must think that I have a pretty poor opinion of your magazine, since I could find so much fault with the story that I selected as the best of the entire contents. That is not the case, however, for I really liked your publication and hope that it continues to appear on the local news stands.

Now let's come "Down to Earth". I would like Mr. Kunkel to hear my opinion on the *waves* vs. *particles* question. I believe that waves are not a form of congealed energy. Light, radio waves, heat radiations, X rays, gamma radiations, and cosmic emanations are all waves. Particles are probably congealed energy. According to Einstein (whose framed picture hangs next to that of Dr. V. Bush on my bedroom wall) particles are converted into energy waves when their velocity reaches 3,000,000,000 meters per second, the speed of light, and all other electromagnetic radiations. So I believe that matter consists of particles as opposed to waves.

Grievous, it was, to me to see that your magazine lacked good old space-opera. How about giving us some in future issues.

Maybe Gibson likes your sexy covers, but I think they should be left for low-brow magazines, not the high-classed science fiction, which has received a bad name and much scorn from critical persons, because of the covers, and without examination of the contents. All too many people fail to realize that the proof of the pudding is in the eating, and not in its appearance.

Robert Marlow
Invermere,
British Columbia, Canada

(Will Messers Rocklynne and Walton kindly take the floor? Your letter, Mr. Marlow, points up one rather important thing, among others: *agreement* with what one reads is not a necessary element for enjoyment.)

●

Dear Sir:

Concerning Mr. A. Hough's letter in the July issue, it would seem that he is in error. Rather than risk being impolite, let us stretch the point for once, and say that his figures have told him an untruth.

Assuming that there *were* such a thing as "free" space, no ship travelling therein could possibly accelerate beyond the peak

velocity of its own exhaust gases without ultimately leaving the gases themselves so far behind that they would cease to be of any value in driving the ship. This fact should be obvious to Mr. Buryl Payne and everyone else, no matter what the slide rule says.

What probably would happen is that, all other drag factors eliminated, the gravitational pull of the exhaust gases would tend to retard the ship's speed to slightly less than that blast-thrust velocity.

However, all other drag factors would very probably *not* be eliminated. Isn't it logical to assume that the respective or combined (according to direction of flight) effects of the gravitational pull of all the neatly-balanced bodies in space would continue to be felt, even at infinite distance?

Also, wasn't your own answer to Mr. Hough a trifle in error? Isn't there something in Relativity about the mass of a given body in space increasing infinitely in direct proportion to its velocity?

As for this, the July issue of *Future*: all the short stories are, as usual, quite good, better in literary quality and execution than the feature novel.

But isn't it part of an editor's job to weed out the jarring solecisms such as *"he looked like he was tired"* for "he looked tired"? Or, on page 40, de Camp's *Ultrasonic God*: "Did your name used to be...?"

Odds bodkins, L. Sprague, where did you went to school?

Allan Paul Steiger
6055 Turney Road
Garfield Heights, O.

(The way I heard it, the mass of a given body in space extends *lengthwise* as it approaches the speed of light—but I may have heard it amiss. ...You have me with my editorial trousers down on that "he looked like" business. Regarding page 40 of the July *Future*, you must bear in mind that Frome had just come through a somewhat harrowing experience, and, although he managed to put on some aspect of nonchalance, his sentence structure showed the strain. Of course, there's an alternate explanation, namely, that your editor simply did not observe a minor slip on the part of the author—one which an author assumes an editor will catch if he doesn't correct it himself—and let it through. So, if grammar is more important to you than realism, I suppose we'll have to score this one as an error, too—but I hope that you will temper justice with mercy, sir.)

[*Turn Page*]

Dear RWL:

This is in the way of being what is supposed to be a "helpful letter". Meaning I am taking an editor up on his request, "Tell us what you want. Let us know what you like and dislike about the magazine."

OK, here it is. If it gets rough in spots, put it down to over-enthusiasm on my part, based on the desire to see science-fiction better itself. Not that it isn't doing fine, now, but, as with everything else, science-fiction can be subject to improvement.

Let's see, about the best way for me to give you my views (both favorable and otherwise) on *Future* would be to take it, issue by issue, and dissect it. So, starting logically, at the beginning, we find:

Volume 1, Number 1, May-June, 1950. Cover: stereotyed, as Bergey usually is. Stories: my rating gives you two out of six—a novelet and a short—*Nobody Saw The Ship*, by Leinster, and *Battle of the Unborn*, by Blish. The issue: not too good, especially since a first issue should be designed as well as possible to attract readers.

Volume 1, Number 2, July-Aug., 1950 Cover: bordering on the ridiculous. People *do* need air in space. Stories: again, I give you two—a novel and a short. *Earth Needs a Killer*, by Walton, and *Barrier of Dread*, by Merrill. "Down to Earth": pleasing to notice the presence of helpful opinions. The issue: fair, but needed boost missing.

Volume 1, Number 3, Sept-Oct. 1950. Cover: art poor, but a vast improvement over the previous two. Stories: your story standards, about here, had a phenomenal rise. I called it four out of five: the two novels, a novelet, and one short. To save space, I'll just name the authors: in order, de Camp, Anderson, Piper and Klass. The issue: excellent.

Volume 1, Number 4, November, 1950. Cover: the only acceptable Luros to date. Good. Stories: as a whole, down; I see it as two out of six—a novelet and a short. *The Secret People* by Blish and Knight, and *Day of the Hunters*, by Asimov. Departments: insertion of book reviews noted and approved. Others: passible. The issue: fair.

So, half-way through our trip through *Future*, we find—the covers: need improvement; the stories: a total of ten readable stories out of twenty-three. Still room for that needed boost.

Now, on to 1951.

[Turn To Page 94]

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Volume 1, Number 5, January, 1951. Cover: about here Luros started descending. Enough said. Stories: at this point, we find a steady rise, which is to continue up until the May, 1951, issue. I "liked" three out of six this time. A novel, a novelet, and one short. Again, the authors: MacCreigh, West, and Fyfe, in that order. The issue: now worth reading.

Volume 1, Number 6, March, 1951. Cover: you're getting the idea. Stories: four out of seven, Good. The authors: Anderson, St. Claire, Merrill, and del Rey. The issue: you could raise the price a nickel. Now the reader is getting what he wants.

Volume 2, Number 1, May, 1951. Cover: Luros again. Stories: sadly enough, we find a decline. Two out of eight—a novelet and a short. *Honorable Enemies,* by Anderson, and *A As in Android* by Lesser. Incidently, Lesser is a "boy" (forgive me, Milt) to watch. He has *new* ideas. The issue: descending, but still worth twenty cents.

Volume 2, Number 2, July, 1951. Cover: Luros, tsk tsk. Stories: ah, we're climbing again—four out of six. The authors: Smith, de Camp, Dye, and Loomis. The issue: fine.

I'll be waiting for the September issue. The Fyfe piece *sounds* fine!

Jan Romanoff,
26601 *So. Western,*
Apt. 341,
Lomita, California.

(The May cover was by Morey, as you'll note if you check the contents page. You're right, of course, that the first issue of a magazine really should be hot. Unfortunately, it doesn't happen too often—partly because it takes a few issues for editor and authors and artists really to get into the swing. So far as any one reader is concerned, nearly every magazine is an up-and-down affair; it'll seem to be climbing steadily for a few issues, then bang! Down it drops. That is—for you. Another reader will write in, saying that the very issue *you* thought had fallen flat on its face is the one that finally showed some life. So it goes—we try to please a very wide variety of tastes, and hope that *every* reader will find his twenty cents' worth—and more—each time.

I do not mean to imply, by the above, that I am personally satisfied that any issue of *Future,* so far, has been superb. I feel that all have been good, and some better, but the editor isn't too easy to please, either. To say that, generally, I like what I get doesn't necessarily mean I get what I

[*Turn To Page* 96]

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LOSE WEIGHT OR NO CHARGE

like, and every time a new issue of *Future* comes back from the printers, I sigh and hope that we'll do better next time.)

●

Dear Editor:

I wish to apologize for that letter I wrote to *Future* last year. I was quite surprised to see it in print. At that time, I knew that it was impossible for a space ship to achieve the speed of light, but I did not know why. I only figured out how long it would take a ship to reach the speed of light because I was curious to see how long it would take if a ship *could* attain that speed. I know why a ship could not attain light speed now, and I thought I had better write in and tell some of those readers who commented on my letter, last issue. According to Einstein (I have only had high school physics, and this information comes from more learned persons in the field) when a body achieves a speed somewhere between 95 and 99 percent of light speed (this can be calculated exactly), that body's mass begins to increase (why?) and at light speed that body would theoretically have infinite mass. But a ship could never reach the speed of light because it would take an infinite amount of fuel to push that infinite mass.

But this brings up the question which I have not been able to find an answer to. If a ship up near the speed of light begins to increase in mass, does its strength of attraction for any nearby objects increase? In other words, does the ship have more gravity? It seems to me that it should have. What I would like to know is, if that increased attraction (gravity)—providing there is an increase—is felt immediately upon any nearby objects, or is there a time lag? Stated more clearly, does gravity have a speed? If so, what is the speed of gravity?

The space ship illustration is poor for several obvious reasons. Here is another and better illustration. Scientists have succeeded in changing matter into energy, and—on a much smaller scale—energy into matter. When that matter is formed from energy, does its gravitational attraction immediately affect any surrounding particles? I would like to know if any science fiction readers can answer that question.

Buryl Payne,
107 Hayes,
Seattle 9, Washington.

(First of all, we have to discover if your question has any meaning. That is, whether what you ask has any relationship to events in the outside world, or whether you are merely toying with words which refer to nothing tangible.

You see, when we get to abstract matters, a good many questions which spring to mind cannot be answered "yes", "no", "maybe", "sometimes", etc,. simply because the question, upon examination, turns out to be *meaningless*. It is like the famous question, "How many angels can dance upon the point of a needle?" That question is meaningless, and will remain meaningless, until someone can produce an angel for examination and measurement.

And, at the present time, the question of whether a space ship can attain or exceed light-speed is also meaningless, for the very simple reason that—so far as we know—space ships do not exist outside of fiction. Human beings have managed to find loopholes—that is, modifying processes—for a good many so-called "natural laws". The parachute, for example, does not negate the "law of gravity" as relating to the rate of acceleration, and increase of acceleration in falling bodies attracted to Earth. It does, however, function as a rather efficient evasion of that law, so far as the wearer of the parachute is concerned, providing the gimmick operates correctly.

So *if* Einstein's theories on the speed of light, and what happens to bodies which approach that speed, are correct, and *if* space ships are developed, some sort of evasion may still be worked out.)

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Dear Ed:

Just staggered through the July issue of *Future,* and all I can say is—it ain't good. How so much pulp stuff—and I do mean *pulp*—got into one issue, I don't know.

In *Dark Recess,* the scientific gibberish is all right, but the characters! All the old tired, cliche-ridden types: the wise old psychiatrist; the frustrated receptionist; the brilliant young scientist who overworks; the jealous, ambitious subordinate; the possibility of destroying the poor old world! And Smith has the nerve to talk condescendingly in this effort about "the basic fundamentals of story construction". Oh no!

As for *Ultrasonic God,* something tells me I've read it all a hundred times. What is it but the tired old mellerdrammer of the frontier days? There they are—the brave white man; the ignorant savages; the renegade who's uniting the tribes and plotting agin' the government, and even the pure white gal. If this stuff is science fiction, I'm Jules Verne.

And There Was Light. Not bad. Human

[*Turn Page*]

interest better, characterization better, plot tighter and more united. At least I cared what happened here—which can't be said about the first two monsterpieces. And *Momentum.* Plot, emotions, characterization are all passable, and the interest and suspense builds up as it should. But—would Walton sleep at such a time? Don't make me laugh. And this recoil plate smashing through the hull—well, it doesn't make sense to me. Or was the hull really made of paper? If so, what are we all so excited about?

In the Balance strikes me as being about the best. Plot and situation are fair, and the girl genius is human—which makes the whole thing live. No great piece of art, perhaps, but the ending is good, and you do have an emotional response. Loomis' *Remember the 4th* uses that old worn-out, brain-finder device (seems like we meet that pore little machine everywhere these days). Still, the characters are halfways human and likeable, and you can't have everything. But the stories that broke my heart were the two lead ones—strictly for the birds, as mentioned above. Sure, length is okay, but how about quality? When plots are hackneyed, and characters similar,—well, who cares? People should be real, and emotions likewise—or the best plots fall on their faces. What science fiction still needs is *good writing.*

John Cairns,
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Galt, Ontario, Canada.

(Well, well—never dreamed I'd get a letter from Jules Verne! I agree that science fiction needs better writing than it frequently had; however, sometimes sheer *story* interest will compensate for lesser quality in characterization. Think carefully, and see if you don't find that a few stories that held you from beginning to end—as *stories*—did not have very good characterization as such. Perhaps it never happened with you—and it's clear that *Dark Recess* didn't hit you that way. It did hit quite a number of other readers, however, as you'll see by the ratings.

I may be wrong—after all, I'm only an editor, and almost any writer can tell you that editors have little taste in story values—but my impression was that de Camp goes in for whimsy, and deliberately spreads out the corn for amusement. I found *Ultrasonic God* quite enjoyable, simply because it was obvious—to me—that formula was being employed to satirize formula. But in this kind of story, if it doesn't strike you as being funny—intentionally funny—then it's a complete bust, and as bad as the worst of unconsciously-dreadful humor perpetrated by a scribe who believes he's turning out a masterpiece.

Walton's going to sleep in *Momentum* is one of those things whch you can accept or reject, but cannot argue about, simply because it's "given" as part of the problem in the story. Since the author did not present Walton as a character in any extended sense, we have nothing to go on as to whether his actions were consistent with his personality, as stated or implied. So, when you ask "why?", one answer is "why not"? Particularly when it is implied that Walton felt secure in the belief that his partner could not possibly get back into the ship.)

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Did you read "The Reckoning" this time? I'm asking you this, because that department is more than merely a score-sheet for the authors to read with pleasure or sorrow. It represents your collective opinions, and I depend a great deal upon your votes in shaping up stories for the future issues. Perhaps you do not agree with the ratings, as they came out. Well, if you did not exercize your franchise—and I mean either through use of the "Reader's Preference Coupon", or through a letter to the editor — then you've let your own wishes be misrepresented. Why not send in your coupon, or a letter, today? All the votes are counted, and all the letters read, whether the latter are published or not, and provided the votes arrive within a month after the issue goes on sale.