

# ASTOUNDING

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By ROBERT HEINLEIN

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# ASTOUNDING

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## NOVELETTES

- UNIVERSE . . . . . Robert Heinlein . . . . . 9**

A NOVA story which wins the award for its presentation of an unique and fascinating civilization in a spaceship that missed its goal!

- SOLUTION UNSATISFACTORY . . . . . Anson MacDonald . . . . . 56**

This is a story of the very near and grimly probable future. Man's apt to have that irresistible weapon soon—and no method of control!

## SHORT STORIES

- LIAR! . . . . . Isaac Asimov . . . . . 43**

Herbie was a robot; he was also a mistake. Somewhere in assembly, an accident made him telepathic, with inevitable and disturbing consequences!

- JAY SCORE . . . . . Eric Frank Russell . . . . . 88**

Earthmen for rocket engineers and pilots, Martians for repairmen, for they needed little air. But it took Jay Score's leather-skinned breed for emergency work!

- FISH STORY . . . . . Vic Phillips and  
Scott Roberts . . . . . 101**

Meet the Colonel, the human blotter with the almost-probable tales to tell!

- SUBCRUISER . . . . . Harry Walton . . . . . 109**

The subspace boats were dangerous enough, without the aid of a drunken skipper and a treasonous mate.

## SERIAL

- THE STOLEN DORMOUSE (Conclusion) L. Sprague de Camp . 130**

In a slightly delicious world of the future where noble Sir Businessman feuds, and the times are more than a little out of joint.

## READERS' DEPARTMENTS

- THE EDITOR'S PAGE . . . . . 5**

- IN TIMES TO COME . . . . . 87**  
Department of Prophecy and Future Issues.

- THE ANALYTICAL LABORATORY . . . . . 87**  
An Analysis of Readers' Opinions.

- BRASS TACKS . . . . . 123**  
Concerning Purely Personal Preferences.

Illustrations by Kramer, Rogers and Schneeman.

## COVER BY ROGERS

All stories in this magazine are fiction. No actual persons are designated either by name or character. Any similarity is coincidental.

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## LIAR!

By Isaac Asimov

*A beautifully logical tale of a robot  
who simply couldn't tell the truth!*

Illustrated by Schneeman

ALFRED LANNING lit his cigar carefully, but the tips of his fingers were trembling slightly. His gray eyebrows hunched low as he spoke between puffs.

"It reads minds all right—damn little doubt about *that!* But why?" He looked at Mathematician Peter Bogert, "Well?"

Bogert flattened his black hair

down with both hands, "That was the thirty-fourth RB model we've turned out, Lanning. All the others were strictly orthodox."

The third man at the table frowned. Milton Ashe was the youngest officer of U. S. Robot & Mechanical Men, Inc., and proud of his post.

"Listen, Bogert. There wasn't a hitch in the assembly from start to finish. I guarantee that."

Bogert's thick lips spread in a patronizing smile, "Do you? If you can answer for the entire assembly line, I recommend your promotion. By exact count, there are seventy-five thousand, two hundred and thirty-four operations necessary for the manufacture of a single positronic brain, each separate operation depending for successful completion upon any number of factors, from five to a hundred and five. If any one of them goes seriously wrong, the 'brain' is ruined. I quote our own information folder, Ashe."

Milton Ashe flushed, but a fourth voice cut off his reply.

"If we're going to start by trying to fix the blame on one another, I'm leaving." Susan Calvin's hands were folded tightly in her lap, and the little lines about her thin, pale lips deepened, "We've got a mind-reading robot on our hands and it strikes me as rather important that we find out just *why* it reads minds. We're not going to do that by saying, 'Your fault! My fault!'"

Her cold gray eyes fastened upon Ashe, and he grinned.

Lanning grinned too, and, as always at such times, his long white hair and shrewd little eyes made him the picture of a biblical patriarch, "True for you, Dr. Calvin."

His voice became suddenly crisp, "Here's everything in pill-concentrate form. We've produced a posi-

tronic brain of supposedly ordinary vintage that's got the remarkable property of being able to tune in on thought waves. It would mark the most important advance in robotics in decades, if we knew how it happened. We don't, and we have to find out. Is that clear?"

"May I make a suggestion?" asked Bogert.

"Go ahead!"

"I'd say that until we *do* figure out the mess—and as a mathematician I expect it to be a very devil of a mess—we keep the existence of RB 34 a secret. I mean even from the other members of the staff. As heads of the departments, we ought not to find it an insoluble problem, and the fewer know about it—"

"Bogert is right," said Dr. Calvin. "Ever since the Interplanetary Code was modified to allow robot models to be tested in the plants before being shipped out to space, anti-robot propaganda has increased. If any word leaks out about a robot being able to read minds before we can announce complete control of the phenomenon, Tyrone and his demagogues could make pretty effective capital out of it."

LANNING SUCKED at his cigar and nodded gravely. He turned to Ashe, "I think you said you were alone when you first stumbled on this thought-reading business."

"I'll say I was alone—I got the scare of my life. RB 34 had just been taken off the assembly table and they sent him down to me. Obermann was off somewhere, so I took him down to the testing rooms myself—at least I started to take him down." Ashe paused, and a tiny smile tugged at his lips, "Say, did any of you ever carry on a thought conversation without knowing it."

No one bothered to answer, and he continued, "You don't realize it at first, you know. He just spoke to me—as logically and sensibly as you can imagine—and it was only when I was most of the way down to the testing rooms that I realized that *I hadn't said anything*. Sure, I had *thought* lots, but that isn't the same thing, is it? I locked that thing up and ran for Lanning. Having it walking beside me, calmly peering into my thoughts and picking and choosing among them gave me the willies."

"I imagine it would," said Susan Calvin thoughtfully. Her eyes fixed themselves upon Ashe in an oddly intent manner. "We are so accustomed to considering our own thoughts private."

Lanning broke in impatiently, "Then only the four of us know. All right! We've got to go about this systematically. Ashe, I want you to check over the assembly line from beginning to end—everything. You're to eliminate all operations in which there was no possible chance of an error, and list all those where there were, together with its nature and possible magnitude."

"Tall order," grunted Ashe.

"Naturally! Of course, you're to put the men under you to work on this—every single one if you have to, and I don't care if we go behind schedule, either. But they're not to know why, you understand."

"Hm-m-m, yes!" The young technician grinned wryly. "It's still a lulu of a job."

Lanning swiveled about in his chair and faced Calvin, "You'll have to tackle the job from the other direction. You're the robopsychologist of the plant, so you're to study the robot itself and work backwards. Try to find out how he ticks. See what else is tied up with his tele-

pathic powers, how far they extend, how they warp his outlook, and just exactly what harm it has done to his ordinary RB properties. You've got that?"

Lanning didn't wait for Dr. Calvin to answer.

"I'll co-ordinate the work and interpret the findings mathematically." He puffed violently at his cigar and mumbled the rest through the smoke, "Bogert will help me there, of course."

Bogert polished the nails of one pudgy hand with the other and said blandly, "I dare say. I know a little in the line."

"Well! I'll get started." Ashe shoved his chair back and rose. His pleasantly youthful face crinkled in a grin, "I've got the darnedest job of any of us, so I'm getting out of here and to work."

He left with a slurred, "B' seein' ye!"

Susan Calvin answered with a barely perceptible nod, but her eyes followed him out of sight and she did not answer when Lanning grunted and said, "Do you want to go up and see RB 34 now, Dr. Calvin?"

RB 34's photoelectric eyes lifted from the book at the muffled sound of hinges turning and he was upon his feet when Susan Calvin entered.

She paused to readjust the huge "No Entrance" sign upon the door and then approached the robot with a friendly smile.

"I've brought you the texts upon hyperatomic motors, Herbie—a few anyway. Would you care to look at them?"

RB 34—otherwise known as Herbie—lifted the three heavy books from her arms and opened to the title page of one:

"Hm-m-m! 'Theory of Hyperatomics.'" He mumbled inarticu-

lately to himself as he flipped the pages and then spoke with an abstracted air, "Sit down, Dr. Calvin! This will take me a few minutes."

The psychologist seated herself and watched Herbie narrowly as he took a chair at the other side of the table and went through the three books systematically.

At the end of half an hour, he put them down, "Of course, I know why you brought these."

The corner of Dr. Calvin's lip twitched, "I was afraid you would. It's difficult to work with you, Herbie. You're always a step ahead of me."

"It's the same with these books, you know, as with the others. They just don't interest me. There's nothing to your textbooks. Your science is just a mass of collected data plastered together by makeshift theory—and all so incredibly simple, that it's scarcely worth bothering about."

"It's your *fiction* that interests me. Your studies of the interplay of human motives and emotions"—his mighty hand gestured vaguely as he sought the proper words.

Dr. Calvin whispered, "I think I understand."

"I see into minds, you see," the robot continued, "and you have no idea how complicated they are. I can't begin to understand everything because my own mind has so little in common with them—but I try, and your novels help."

"Yes, but I'm afraid that after going through some of the harrowing emotional experiences of our present-day sentimental novel"—there was a tinge of bitterness in her voice—"you find real minds like ours dull and colorless."

"But I don't!"

The sudden energy in the response brought the other to her feet. She

felt herself reddening, and thought wildly, "He must know!"

Herbie subsided suddenly, and muttered in a low voice from which the metallic timber departed almost entirely, "But, of course, I know about it, Dr. Calvin. You think of it always, so how can I help but know."

Her face was hard. "Have you—told anyone?"

"Of course not!" This, with genuine surprise. "No one has asked me."

"Well, then," she flung out, "I suppose you think I'm a fool."

"No! It is a normal emotion."

"Perhaps that's why it's so foolish." The wistfulness in her voice drowned out everything else. Some of the woman peered through the layer of doctorhood. "I am not what you would call—attractive."

"If you are referring to mere physical attraction, I couldn't judge. But I know, in any case, that there are other types of attraction."

"Nor young." Dr. Calvin had scarcely heard the robot.

"You are not yet forty." An anxious insistence had crept into Herbie's voice.

"Thirty-eight as you count the years; a shriveled sixty as far as my emotional outlook on life is concerned. Am I a psychologist for nothing?"

She drove on with bitter breathlessness, "And he's barely thirty and looks and acts younger. Do you suppose he ever sees me as anything but . . . but what I am?"

"You are wrong!" Herbie's steel fist struck the plastic-topped table with a strident clang. "Listen to me—"

BUT Susan Calvin whirled on him now and the hunted pain in her eyes became a blaze, "Why should

I? What do you know about it all, anyway, you . . . you machine. I'm just a specimen to you; an interesting bug with a peculiar mind spread-eagled for inspection. It's a wonderful example of frustration, isn't it? Almost as good as your books." Her voice, emerging in dry sobs, choked into silence.

The robot covered at the outburst. He shook his head pleadingly. "Won't you listen to me, please? I could help you if you would let me."

"How?" Her lips curled. "By giving me good advice?"

"No, not that. It's just that I know what other people think—Milton Ashe, for instance."

There was a long silence, and Susan Calvin's eyes dropped. "I don't want to know what he thinks," she gasped. "Keep quiet."

"I think you *would* want to know what he thinks."

Her head remained bent, but her breath came more quickly. "You're talking nonsense," she whispered.

"Why should I? I'm trying to help. Milton Ashe's thoughts of you—" he paused.

And then the psychologist raised her head, "Well?"

The robot said quietly, "He loves you."

For a full minute, Dr. Calvin did not speak. She merely stared. Then, "You're mistaken! You must be. Why should he?"

"But he does. A thing like that cannot be hidden—not from me."

"But I am so . . . so—" she stammered to a halt.

"He looks deeper than the skin, and admires intellect in others. Milton Ashe is not the type to marry a head of hair and a pair of eyes."

Susan Calvin found herself blinking rapidly and waited before speak-

ing. Even then her voice trembled, "Yet he certainly never in any way indicated—"

"Have you ever given him a chance?"

"How could I? I never thought that—"

"Exactly!"

The psychologist paused in thought and then looked up suddenly. "A girl visited him here at the plant half a year ago. She was pretty, I suppose—blond and slinky. And, of course, could scarcely add two and two. He spent all day puffing out his chest, trying to explain how a robot was put together." The hardness had returned, "Not that she understood! Who was she?"

Herbie answered without hesitation, "I know the person you're referring to. She's his first cousin, and there is no romantic interest there, I assure you."

Susan Calvin rose to her feet with a vivacity almost girlish, "Now isn't that strange? That's exactly what I used to pretend to myself sometimes, though I never *really* thought so. Then it all must be true."

She ran to Herbie and seized his cold, heavy hand in both hers. "Thank you, Herbie." Her voice was an urgent, husky whisper. "Don't tell anyone about this. Let it be our secret—and thank you again." With that, and a convulsive squeeze of Herbie's unresponsive metal fingers, she left.

Herbie turned slowly to his neglected novel, but there was no one to read *his* thoughts.

MILTON ASHE stretched slowly and magnificently, to the tune of cracking joints and a chorus of grunts, and then glared at Peter Bogert, Ph. D.

"Say," he said, "I've been at this for a week now with just about no

sleep. How long do I have to keep it up? I thought you said the positronic bombardment in Vac Chamber D was the solution."

Bogert yawned delicately and regarded his white hands with interest, "It is! I'm on the track."

"I know what *that* means when a mathematician says it. How near the *end* are you?"

"It all depends."

"On what?" Ashe dropped into a chair and stretched his long legs out before him.

"On Lanning. The old fellow disagrees with me." He sighed, "A bit behind the times, that's the trouble with him. He clings to matrix mechanics as the all in all, and this problem calls for more powerful mathematical tools. He's so stubborn."

Ashe muttered sleepily, "Why not ask Herbie and settle the whole affair."

"Ask the robot?" Bogert's eyebrows climbed.

"Why not? Didn't the old girl tell you?"

"You mean Calvin?"

"Yeah! Susie herself. That robot's a mathematical wiz. He knows all about everything plus a bit on the side. He does triple integrals in his head and eats up tensor analysis for dessert."

The mathematician stared skeptically, "Are you serious?"

"So help me! The catch is that the dope doesn't like math. He'd rather read slushy novels. Honest! You should see the tripe Susie keeps feeding him: 'Purple Passion' and 'Love in Space.'"

"Dr. Calvin hasn't said a word of it to us."

"Well, she hasn't finished studying him. You know how she is. She likes to have everything just so before letting out the big secret."

"She's told *you*."

"We sort of got to talking. I've been seeing a lot of her lately." He opened his eyes wide and frowned, "Say, Bogie, have you been noticing anything queer about the dame lately?"

Bogert relaxed into an undignified grin, "She's using lipstick, if that's what you mean."

"Hell, I know that. Rouge, powder and eye shadow, too. She's a sight. But it's not that. I can't put my finger on it. It's the way she talks—as if she were happy about something." He thought a little, and then shrugged.

The other allowed himself a leer, which, for a scientist past fifty, was not a bad job, "Maybe she's in love."

Ashe allowed his eyes to close again, "You're nuts, Bogie. You go speak to Herbie; I want to stay here and go to sleep."

"Right! Not that I particularly like having a robot tell me my job, nor that I think he can do it!"

A soft snore was his only answer.

HERBIE LISTENED carefully as Peter Bogert, hands in pockets, spoke with elaborate indifference.

"So there you are. I've been told you understand these things, and I'm asking you more in curiosity than anything else. My line of reasoning, as I've outlined it, involves a few doubtful steps, I admit, which Dr. Lanning refuses to accept, and the picture is still rather incomplete."

The robot didn't answer, and Bogert said, "Well?"

"I see no mistake," Herbie studied the scribbled figures.

"I don't suppose you can go any further than that?"

"I daren't try. You are a better

mathematician than I, and—well, I'd hate to commit myself."

There was a shade of complacency in Bogert's smile, "I rather thought that would be the case. It is deep. We'll forget it." He crumpled the sheets, tossed them down the waste shaft, turned to leave, and then thought better of it.

"By the way—"

The robot waited.

Bogert seemed to have difficulty, "There is something—that is, perhaps you can—" He stopped.

Herbie spoke quietly, "Your thoughts are confused, but there is no doubt at all that they concern Dr. Lanning. It is silly to hesitate, for as soon as you compose yourself, I'll know what it is you want to ask."

The mathematician's hand went to his sleek hair in the familiar smoothing gesture. "Lanning is past seventy," he said, as if that explained everything.

"I know that."

"And he's been director of the plant for almost thirty years."

Herbie nodded.

"Well, now," Bogert's voice became ingratiating, "you would know whether . . . whether he's thinking of resigning. Health, perhaps, or some other—"

"Quite," said Herbie, and that was all.

"Well, *do* you know?"

"Certainly."

"Then—uh—could you tell me?"

"Since you ask, yes." The robot was quite matter-of-fact about it. "He has already resigned!"

"*What!*" The exclamation was an explosive, almost inarticulate, sound. The scientist's large head hunched forward, "Say that again!"

"He has already resigned," came the quiet repetition, "but it has not yet taken effect. He is waiting, you

see, to solve the problem of—er—myself. That finished, he is quite ready to turn the office of director over to his successor."

Bogert expelled his breath sharply, "And this successor? Who is he?" He was quite close to Herbie now, eyes fixed fascinatedly on those unreadable dull-red photoelectric cells that were the robot's eyes.

Words came slowly, "You are the next director."

And Bogert relaxed into a tight smile, "This is good to know. I've been hoping and waiting for this. Thanks, Herbie."

He was still smiling as he closed the door behind himself, but what Herbie's feelings were, there was no way of telling.

PETER BOGERT was at his desk until five that morning and he was back at nine. The shelf just over the desk emptied of its row of reference books and tables, as he referred to one after the other. The pages of calculations before him increased microscopically and the crumpled sheets at his feet mounted into a hill of scribbled paper.

At precisely noon, he stared at the final page, rubbed a bloodshot eye, yawned and shrugged. "This is getting worse each minute. Damn!"

He turned at the sound of the opening door and nodded at Lanning, who entered, cracking the knuckles of one gnarled hand with the other.

The director took in the disorder of the room and his eyebrows furrowed together.

"New lead?" he asked.

"No," came the defiant answer.

"What's wrong with the old one?"

Lanning did not trouble to answer, nor to do more than bestow a single cursory glance at the top sheet

upon Bogert's desk. He spoke through the flare of a match as he lit a cigar.

"Has Calvin told you about the robot? It's a mathematical genius. Really remarkable."

The other snorted loudly, "So I've heard. But Calvin had better stick to robopsychology. I've checked Herbie on math, and he can scarcely struggle through calculus."

"Calvin didn't find it so."

"She's crazy."

"And I don't find it so." The director's eyes narrowed dangerously.

"You!" Bogert's voice hardened. "What're you talking about?"

"I've been putting Herbie through his paces all morning, and he can do tricks you never heard of."

"Is that so?"

"You sound skeptical!" Lanning flipped a sheet of paper out of his vest pocket and unfolded it. "That's not my handwriting, is it?"

Bogert studied the large angular notation covering the sheet, "Herbie did this?"

"Right! And if you'll notice, he's been working on your time integration of Equation 22. It comes"—Lanning tapped a yellow fingernail upon the last step—"to the identical conclusion I did, and in a quarter the time. You had no right to neglect the Linger Effect in positronic bombardment."

"I didn't neglect it. For Heaven's sake, Lanning, get it through your head that it would cancel out—"

"Oh, sure, you explained that. You used the Mitchell Translation Equation, didn't you? Well—it doesn't apply."

"Why not?"

"Because you've been using hyper-imaginaries, for one thing."

"What's that to do with it?"

"Mitchell's Equation won't hold when—"

"Are you crazy? If you'll reread Mitchell's original paper in the *Mathematical Journal*—"

"I don't have to. I told you in the beginning that I didn't like his reasoning, and Herbie backs me in that."

"Well, then," Bogert shouted, "let that clockwork contraption solve the entire problem for you. Why bother with nonessentials?"

"That's exactly the point. Herbie can't solve the problem. I've asked him. And if he can't, we can't—alone. I'm submitting the entire question to the National Board. It's gotten beyond us."

Bogert's chair went over backward as he jumped up asnarl, face crimson, "You're doing nothing of the sort."

Lanning flushed in his turn, "Are you telling me what I can't do?"

"Exactly," was the gritted response. "I've got the problem beaten and you're not to take it out of my hands, understand? Don't think I don't see through you, you desiccated fossil. You'd cut your own nose off before you'd let me get the credit for solving robotic telepathy."

"You're a damned idiot, Bogert, and in one second I'll have you suspended for insubordination"—Lanning's lower lip trembled with passion.

"Which is one thing you won't do, Lanning. You haven't any secrets with a mind-reading robot around, so don't forget that I know all about your resignation."

The ash on Lanning's cigar trembled and fell, and the cigar itself followed, "What . . . what—"

Bogert chuckled nastily, "And I'm the new director, be it understood. I'm very aware of that; don't think I'm not. Damn your eyes, Lanning, I'm going to give the orders about

here or there will be the sweetest mess that *you've* ever been in."

Lanning found his voice and let it out with a roar. "You're suspended, d'ye hear? You're relieved of all duties. You're broken, do you understand?"

The smile on the other's face broadened, "Now what's the use of that? You're getting nowhere. I'm holding the trumps. I *know* you've resigned. Herbie told me, and he got it straight from you."

Lanning forced himself to speak quietly. He looked an old, old man, with tired eyes peering from a face in which the red had disappeared, leaving the pasty yellow of age behind, "I want to speak to Herbie. He can't have told you anything of the sort. You're playing a deep game, Bogert, but I'm calling your bluff. Come with me."

Bogert shrugged, "To see Herbie? Good! Damned good!"

IT WAS also precisely at noon that Milton Ashe looked up from his clumsy sketch and said, "You get the idea? I'm not too good at getting this down, but that's about how it looks. It's a honey of a house, and I can get it for next to nothing."

Susan Calvin gazed across at him with melting eyes. There had been a preliminary self-consciousness when she had first forced her hair into curls and lacquered her fingernails a bright red—a silly everyone-is-snicker-at-me feeling—but it always vanished when she was with *him*. There was nothing then but the hard, metallic voice of Herbie whispering in her ear—

"It's really beautiful," she sighed. "I've often thought that I'd like to —" Her voice trailed away.

"Of course," Ashe continued briskly, putting away his pencil,

"I've got to wait for my vacation. It's only two weeks off, but this Herbie business has everything up in the air." His eyes dropped to his fingernails, "Besides, there's another point—but it's a secret."

"Then don't tell me."

"Oh, I'd just as soon. I'm just busting to tell someone—and you're just about the best—er—confidante I could find here." He grinned sheepishly.

Susan Calvin's heart bounded, but she did not trust herself to speak.

"Frankly," Ashe scraped his chair closer and lowered his voice into a confidential whisper, "the house isn't to be only for myself. I'm getting married!"

And then he jumped out of his seat, "What's the matter?"

"Nothing!" The horrible spinning sensation had vanished, but it was hard to get words out. "Married? You mean—"

"Why, sure! About time, isn't it? You remember that girl who was here last summer. That's she! But you *are* sick. You—"

"Headache!" Susan Calvin motioned him away weakly. "I've . . . I've been subject to them lately. I want to . . . to congratulate you, of course. I'm very glad—" The inexpertly-applied rouge made a pair of nasty red splotches upon her chalk-white face. Things had begun spinning again. "Pardon me—please—"

The words were a mumble, as she stumbled blindly out the door. It had happened with the sudden catastrophe of a dream—and with all the unreal horror of a dream.

But how could it be? Herbie had said—

And Herbie *knew!* He could see into minds!

She found herself leaning breathlessly against the door jamb, staring

into Herbie's metal face. She must have climbed the two flights of stairs, but she had no memory of it. The distance had been covered in an instant, as in a dream.

As in a dream!

And still Herbie's unblinking eyes stared into hers and their dull red seemed to expand into dimly-shining nightmarish globes.

He was speaking, and she felt the cold glass pressing against her lips. She swallowed and shuddered into a certain awareness of her surroundings.

Still Herbie spoke, and there was an agitation in his voice—as if he were hurt and frightened and pleading.

The words were beginning to make sense. "This is a dream," he was saying, "and you mustn't believe in it. You'll wake into the real world soon and laugh at yourself. He loves you, I tell you. He does, he *does!* But not here! Not now! *This* is all illusion."

Susan Calvin nodded, her voice a whisper, "Yes! Yes!" She was clutching Herbie's arm, clinging to it, repeating over and over, "It isn't true, is it? It isn't, is it?"

Just how she came to her senses, she never knew—but it was like passing from a world of misty unreality to one of harsh sunlight. She pushed him away from her, pushed hard against that steely arm, and her eyes were wide.

"What are you trying to do?" Her voice rose to a harsh scream. "*What are you trying to do?*"

Herbie backed away, "I want to help."

The psychologist stared, "Help? By telling me this is a dream? By trying to push me into schizophrenia?" A hysterical tenseness seized her, "This is no dream! I wish it were!"

She drew in her breath sharply, "Wait! Why . . . why, I understand. Merciful heavens, it's so obvious."

There was horror in the robot's voice, "I *had* to!"

"And I *believed* you! I never thought—"

LOUD VOICES outside the door brought her to a halt. She turned away, fists clenching spasmodically, and when Bogert and Lanning entered, she was at the far window. Neither of the men paid her the slightest attention.

They approached Herbie simultaneously; Lanny angry and impatient, Bogert coolly sardonic. The director spoke first.

"Here now, Herbie. Listen to me!"

The robot brought his eyes sharply down upon the aged director, "Yes, Dr. Lanning."

"Have you discussed me with Dr. Bogert?"

"No, sir." The answer came slowly, and the smile on Bogert's face flashed off.

"What's that?" Bogert shoved in ahead of his superior and straddled the ground before the robot. "Repeat what you told me yesterday."

"I said that—" Herbie fell silent. Deep within him his metallic diaphragm vibrated in soft discords. "Didn't you say he had resigned?" roared Bogert. "*Answer me!*"

Bogert raised his arm frantically, but Lanning pushed him aside, "Are you trying to bully him into lying?"

"You heard him, Lanning. He began to say 'Yes' and stopped. Get out of my way! I want the truth out of him, understand!"

"I'll ask him!" Lanning turned to the robot. "All right, Herbie, take it easy. Have I resigned?"

Herbie stared, and Lanning re-

peated anxiously, "Have I resigned?" There was the faintest trace of a negative shake of the robot's head. A long wait produced nothing further.

The two men looked at each other, and the hostility in their eyes was all but tangible.

"What the devil," blurted Bogert, "has the robot gone mute? Can't you speak, you monstrosity?"

"I can speak," came the ready answer.

"Then answer the question. Didn't you tell me Lanning had resigned? Hasn't he resigned?"

And again there was nothing but dull silence, until from the end of the room, Susan Calvin's laugh rang out suddenly, high-pitched and semihysterical.

The two mathematicians jumped, and Bogert's eyes narrowed, "You here? What's so funny?"

"Nothin's funny." Her voice was not quite natural. "It's just that I'm not the only one that's been caught. There's irony in three of the greatest experts in robotics in the world falling into the same elementary trap, isn't there?" Her voice faded, and she put a pale hand to her forehead, "But it isn't funny!"

This time the look that passed between the two men was one of raised

eyebrows. "What trap are you talking about?" asked Lanning stiffly. "Is something wrong with Herbie?"

"No," she approached them slowly, "nothin's wrong with *him*—only with us." She whirled suddenly and shrieked at the robot, "Get away from me! Go to the other end of the room and don't let me look at you."

Herbie cringed before the fury of her eyes and stumbled away in a clattering trot.

Lanning's voice was hostile, "What is all this, Dr. Calvin?"

She faced them and spoke wearily, "You know the fundamental law impressed upon the positronic brain of all robots, of course."

The other two nodded together. "Certainly," said Bogert. "On no conditions is a human being to be injured in any way, even when such injury is directly ordered by another human."

"How nicely put," sneered Calvin. "But what kind of injury?"

"Why—any kind."

"Exactly! Any kind! But what about hurt feelings? What about deflation of one's ego? What about the blasting of one's hopes? Is that injury?"

Lanning frowned, "What would a

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robot know about—" And then he caught himself with a gasp.

"You've caught on, have you? *This* robot reads minds. Do you suppose it doesn't know everything about mental injury? Do you suppose that if asked a question, it wouldn't give exactly that answer that one *wants* to hear. Wouldn't any other answer hurt us, and wouldn't Herbie know that?"

"Good heavens!" muttered Bogert.

The psychologist cast a sardonic glance at him, "I take it you asked him whether Lanning had resigned. You *wanted* to hear that he had resigned and so that's what Herbie told you."

"And I suppose that is why," said Lanning, tonelessly, "it wouldn't answer a little while ago. It couldn't answer either way without hurting one of us."

THERE WAS a short pause in which the men looked thoughtfully across the room at the robot, crouching in the chair by the bookcase, head resting in one hand.

Susan Calvin stared steadfastly at the floor, "*He* knew of all this. That . . . that devil knows everything—including what went wrong in his assembly." Her eyes were dark and brooding.

Lanning looked up, "You're wrong there, Dr. Calvin. He doesn't know what went wrong. I asked him."

"What does that mean?" cried Calvin. "Only that you didn't want him to give you the solution. It would puncture your ego to have a machine do what you couldn't. Did you ask him?" she shot at Bogert.

"In a way." Bogert coughed and reddened. "He told me he knew very little about mathematics."

Lanning laughed, not very loudly,

and the psychologist smiled caustically. She said, "I'll ask him! A solution by him won't hurt *my* ego." She raised her voice into a cold, imperative "Come here!"

Herbie rose and approached with hesitant steps.

"You know, I suppose," she continued, "just exactly at what point in the assembly an extraneous factor was introduced or an essential one left out."

"Yes," said Herbie, in tones barely heard.

"Hold on," broke in Bogert angrily. "That's not necessarily true. You want to hear that, that's all."

"Don't be a fool," replied Calvin. "He certainly knows as much math as you and Lanning together, since he can read minds. Give him his chance."

The mathematician subsided, and Calvin continued, "All right, then, Herbie, give! We're waiting." And in an aside, "Get pencils and paper, gentlemen."

But Herbie remained silent, and there was triumph in the psychologist's voice, "Why don't you answer, Herbie?"

The robot blurted out suddenly, "I cannot. You know I cannot! Dr. Bogert and Dr. Lanning don't want me to."

"They want the solution."

"But not from me."

Lanning broke in, speaking slowly and distinctly, "Don't be foolish, Herbie. We *do* want you to tell us."

Bogert nodded curtly.

Herbie's voice rose to wild heights, "What's the use of saying that? Don't you suppose that I can see past the superficial skin of your mind? Down below, you don't want me to. I'm a machine, given the imitation of life only by virtue of the positronic interplay in my brain—which is man's device. You can't

lose face to me without being hurt. That's deep in your mind and *won't* be erased. I *can't* give the solution."

"We'll leave," said Dr. Lanning. "Tell Calvin."

"That would make no difference," cried Herbie, "since you would know anyway that it was I that was supplying the answer."

Calvin resumed, "But you understand, Herbie, that despite that, Drs. Lanning and Bogert want that solution."

"By their own efforts!" insisted Herbie.

"But they want it, and the fact that you have it and won't give it hurts them. You see that, don't you?"

"Yes! Yes!"

"And if you tell them, that will hurt them, too."

"Yes! Yes!" Herbie was retreating slowly, and step by step Susan Calvin advanced. The two men watched in frozen bewilderment.

"You can't tell them," droned the psychologist slowly, "because that would hurt and you mustn't hurt. But if you don't tell them, you hurt, so you *must* tell them. And if you do, you will hurt and you mustn't, so you can't tell them; but if you don't, you hurt, so you must; but if you do, you hurt, so you mustn't; but if you don't, you hurt, so you must; but if you do, you—"

Herbie was up against the wall, and here he dropped to his knees. "Stop!" he shrieked. "Close your mind! It is full of pain and frustration and hate! I didn't mean it, I tell you! I tried to help! I told you what you wanted to hear. I had to!"

The psychologist paid no attention, "You must tell them, but if

you do, you hurt, so you mustn't; but if you don't, you hurt, so you must; but—"

And Herbie screamed!

It was like the whistling of a piccolo many times magnified—shrill and shriller till it keened with the terror of a lost soul and filled the room with the piercingness of itself.

And when it died into nothingness, Herbie collapsed into a huddled heap of motionless metal.

Bogert's face was bloodless, "He's dead!"

"No!" Susan Calvin burst into body-racking gusts of wild laughter, "not dead—merely insane. I confronted him with the insoluble dilemma, and he broke down. You can scrap him now—because he'll never speak again."

Lanning was on his knees beside the thing that had been Herbie. His fingers touched the cold, unresponsive metal face and he shuddered. "You did that on purpose." He rose and faced her, face contorted.

"What if I did? You can't help it now." And in a sudden access of bitterness, "He deserved it."

The director seized the paralyzed, motionless Bogert by the wrist, "What's the difference. Come, Peter." He sighed, "A thinking robot of this type is worthless anyway." His eyes were old and tired, and he repeated, "Come, Pete!"

It was minutes after the two scientists left that Dr. Susan Calvin regained part of her mental equilibrium. Slowly, her eyes turned to the living-dead Herbie and the tight smile returned to her face. Long she stared while the triumph faded and the helpless frustration returned—and of all her turbulent thoughts only one infinitely bitter word passed her lips.

"Liar!"