

She smiled. "Nestor 10 thought that he was superior to humans," she said. "He thought that he and the other robots knew more than humans. And we knew that Nestor 10 thought this way. So we told all the robots that gamma radiation would kill them. In the previous test, the robots had made a decision. They wouldn't save the human. This is because they knew that they might die if they tried. So the robots didn't try to save me."

"I understand that, Dr Calvin," said General Kallner. "But why did Nestor 10 move?" he asked.

"Because we used heat radiation in the test. We didn't use gamma radiation," said the robot-psychologist. "Normal Nestors can't tell the difference between types of radiation. They haven't been taught physics. Only Nestor 10 knew the difference, because he was taught the science by Gerald Black. When Nestor 10 realized that there was heat radiation in the room, he knew that it was harmless. He knew that we were lying, so he moved. But he forgot that the other robots might know less than humans. He was caught because he felt so superior. Goodbye, General."

7

Evidence

*Susan Calvin and I started talking about the changes on Earth in the last fifty years.*

*"I remember when the hyperatomic drive was invented," Dr Calvin said. "That was before we could travel far into space, to other worlds.*

*"By the early 2030s, there were too many people and too many governments on Earth. And there were too many nations," she went*

on. "At last, the nations joined together into larger groups. They became regions. When I was born, the United States of America was a nation. Now it is part of the Northern Region. Robots were responsible for the change."

"You mean the Machines," I said.

"Yes," she replied. Suddenly her voice was sad. "But I wasn't thinking of the Machines, I was thinking of a man who died last year. In fact, he planned his death. He knew that we didn't need him any longer. His name was Stephen Byerley."

"Byerley became a member of the government in 2032," she went on. "You were only a boy then. You won't remember this. He was elected<sup>88</sup> as mayor in 2032. And his election was really strange..."

---

Francis Quinn was a politician. He had come to Alfred Lanning's office to talk to him.

"Dr Lanning, do you know Stephen Byerley?" Quinn asked.

"No," Lanning replied. "But I know about him."

"Will you vote for him in the next election?" Quinn said.

"I don't know," said Lanning. "I didn't realize that he was a candidate in the election."

"He may be our next mayor," Quinn replied. "Of course, he's only a lawyer now. But—"

"Yes," said Lanning impatiently, "but what do you want from me?"

"I don't want Byerley to become mayor," Quinn answered. "And I don't think that U.S. Robots wants him to become mayor, either."

"I don't understand," Lanning said.

"There's nothing unusual about Byerley's past," said Quinn. "His early life was normal. He grew up in a small town, and attended college. Byerley's wife died when she was only twenty-two. Soon after this, Byerley had a bad car accident."

He became a lawyer and then moved to the city. But there is one strange thing about his life—he never eats.”

Lanning stared at Quinn. He was very surprised.

“Byerley never eats,” Quinn said again. “Never! Do you understand what that means?”

“Are you sure?” Lanning asked.

“Yes,” said Quinn. “Nobody has *ever* seen him eat or drink anything. And he doesn’t sleep.”

Lanning leaned back in his chair. “What you’re suggesting is impossible,” he said.

“Stephen Byerley is a robot, Dr Lanning,” Quinn said.

“That’s impossible, Mr Quinn,” said Lanning again.

There was a silence, then Quinn spoke. “Your company has to test him,” he said.

“No, Mr Quinn,” Lanning replied, “why should U.S. Robots test him?”

“You have no choice,” Quinn said. “If anyone finds out that he is a robot before you complete the tests, your company will be in trouble. U.S. Robots is the only company in the Solar System that makes positronic robots. They’re the most advanced robots that were ever built. If Byerley is a robot, then he must be a positronic robot. And U.S. Robots is responsible for him.”

“But we have never made a robot that looks exactly like a human—a humanoid robot,” Lanning said.

“Can it be done?” Quinn asked. “Could someone build a humanoid robot?”

“Yes, it can be done,” Lanning replied, “but the inventor would need a positronic brain. When our robots break or fail, we use their positronic brains again, or they’re destroyed. That is the law. The government makes U.S. Robots do this.”

“But maybe someone stole a positronic brain and made a humanoid robot,” Quinn said.

“Impossible!” Lanning cried.

“Soon, the government and the people will make you test Byerley. Why not do it now?” Quinn said calmly.

Lanning sighed. “Very well,” he said.

Stephen Byerley was forty years old. He looked healthy and happy. Lanning watched Byerley, as he laughed at Lanning’s question.

Lanning frowned and looked at Dr Calvin, who was sitting next to him.

“Dr Lanning,” said Byerley, laughing again, “you think that I might be a...what?!”

“Someone has told us that you’re a robot,” replied Lanning. “Only U.S. Robots makes intelligent robots, so we have to find out the truth. The idea that you, a politician, might be a robot could harm the company. It doesn’t have to be true. People would protest and the company would be harmed.”

“I understand,” Byerley replied. “The idea is crazy, but you are in a difficult position. How can I help you?”

“It’s simple,” Lanning said. “Eat a meal, in a restaurant, where people can see you.”

He sat back in his seat. Susan Calvin watched Byerley, but said nothing.

Byerley looked at the woman. “I do not think that I can do that,” he said. “I do not sleep much, that is true. And I have never enjoyed eating with other people. This is unusual, but it harms nobody. Did Francis Quinn tell you that I was a robot? His suggestion is nonsense. He does not want me to be elected as mayor. This is his reason for saying this.”

“Maybe the suggestion is nonsense,” said Lanning. “But if you eat a meal in a restaurant, the questions will stop.”

Byerley turned to Susan Calvin. “You are a psychologist and you work for U.S. Robots, don’t you?”

“I’m a *robot*-psychologist,” she said.

“Are robots very different from men?” Byerley asked.

“Completely different,” she said, coldly.

Byerley smiled. “Dr Calvin, I guess that you have brought some food with you.”

“You surprise me, Mr Byerley,” Calvin said. She opened her bag and took out an apple. She gave it to him, without speaking.

Lanning watched carefully as Byerley calmly ate the apple.

“Eating the apple doesn’t prove that you’re a robot, or a human,” said Susan Calvin.

“Does it not?” said Byerley, smiling.

“Of course not,” said Calvin. She turned to the director of U.S. Robots. “Dr Lanning, if Mr Byerley is a humanoid robot, he’s a very, very good model. Look at the shape of his face, his skin, and his eyes. If he is a robot, I wish that U.S. Robots *had* made him. He’s perfect. And a perfect humanoid robot would be able to eat.”

“I’m not an idiot,” Lanning said angrily. “I don’t care if Mr Byerley is human or not. I want to protect the company. That’s the only thing that interests me. He has to eat a whole meal in a restaurant. Then people will see the truth.”

“Dr Lanning,” Byerley said, “Both Quinn and I want to win the election. Quinn wants to stop me. If he wants to call me a robot, he can. But he will never *prove* that I am a robot.”

---

Byerley arrived home and went into the sitting room. The man in a wheelchair<sup>89</sup> looked up at him, and smiled.

Byerley smiled and touched the man’s shoulder.

“You’re late, Steve,” the man said. His voice was weak and he had many scars on his face.

“I am sorry, John,” said Byerley. “I have a problem and I may need your help.”

“Let’s go into the yard,” Byerley went on. “It is a beautiful evening.”



He lifted John from the wheelchair. Then he carried him into the yard, and put him down carefully on the cool grass.

"Tell me about your problem," John said.

"Quinn has started his election campaign. He is going to tell everyone that I am a robot."

"How do you know this?" replied John.

"Two scientists from U.S. Robots came to see me today," Byerley said. "They told me."

"What are you going to do, Steve?"

"I have a plan," Byerley answered. "Listen, and tell me if it will work."

---

Francis Quinn stared at Alfred Lanning. "Byerley is not being truthful," said the politician.

"If you're wrong, what will you do?" Lanning asked. "We've seen him eat. He isn't a robot—that story is nonsense."

"Do you think that Byerley is human?" Quinn asked Calvin. "Lanning said that you were the expert."

Susan Calvin looked at Quinn with her cold, bright eyes.

"There are only two ways to prove that Byerley is a robot," she said. "You have to look inside his body, or study his mind. You can cut him open, or use an X-ray<sup>90</sup> to look inside his body. You can study his mind to find out how it is different from a human mind. If Byerley is a positronic robot, then he must obey the three Laws of Robotics. Do you know the Laws, Mr Quinn?"

"I've heard about them," Quinn replied.

"If Byerley disobeys one of the three laws, then he's not a robot," said the psychologist. "However, if he obeys all the laws, he *could* be a robot. Or he could simply be a very good man. It's impossible to tell the difference between a superior robot, and the very best humans."

"So you can never prove that Byerley is a robot," said

Quinn. "Is that what you are telling me, Dr Calvin?"

"Maybe I can prove that he's *not* a robot."

"I don't want you to do that," Quinn said. "Dr Lanning, is it possible to create a humanoid robot?"

"Yes," Lanning replied.

"Then we will see what's inside Mr Byerley," Quinn said, and he left.

Lanning turned to Susan Calvin. "Why did you—"

"I won't tell lies for you," Calvin said sharply.

"But what will we do if Byerley is opened up, and we discover that he's a robot?" asked Lanning.

"That won't happen," said Calvin. "Byerley is as clever as Quinn. In fact, he's more intelligent than Quinn."

---

A week before the election campaign began, there was a news report about Stephen Byerley. It said that Byerley might be a robot. At first people laughed. But then, slowly, they began to ask questions.

Was this possible? If the story were true, it would be terrible!

People began to protest. Guards stood outside the offices of U.S. Robots. The police protected Stephen Byerley's home.

A detective, named Harroway, arrived at Byerley's house with two police officers. He was holding a document in his hand. "Mr Byerley, I've come to search your house," he said. He gave Byerley the paper. "Here's a search warrant. We have permission to search the house for...mechanical men or robots."

Byerley looked at the warrant. "Very well," he said. "Search the house."

The officers began to search the house. Harroway turned to Byerley. "Mr Byerley, we have to search *you*," he said.

"Do you mean that you have to X-ray me?" Byerley asked. "Let me read the warrant again." He looked at the document.

"It says that you can search my house. It does not say that you can X-ray me," he said.

"You know the law well," Harroway replied, smiling. Then he called the officers, and left. When he reached his car, Harroway took a tiny machine from his pocket. He looked at the screen on the front of the machine. It was the first time that Harroway had taken an X-ray photo.

Quinn called Byerley on the videophone. "I'm going to tell everyone that you're wearing special clothes that block X-rays," he said. "They'll realize that they can't take X-ray photos of you."

"Why will this trouble me?" Byerley replied calmly.

"Because everyone will say that you're afraid of an X-ray," replied Quinn. "People will say that you're hiding a secret."

"And the people will also know that you broke the law," Byerley said. "They will realize that you did something without permission. When I am elected, people will see that I am honest and truthful. They will see that I do not break laws."

"When your house was searched, someone was missing," Quinn said, unpleasantly.

"Yes," Byerley said. "My old teacher. He lives with me, but he's been away. He has been unwell. He is resting in the country."

"Is this man a scientist?" Quinn asked.

"He used to be a lawyer," Byerley said. "But he had an accident. Now he studies biophysics. The government has given him permission to do this work."

"And what does this...teacher...know about robots?" Quinn asked. "Can he build a robot? Is he able to get a positronic brain?"

"Ask your friends at U.S. Robots," Byerley replied. "They would know."

"I think that your teacher is the *real* Stephen Byerley," Quinn



said. "And I think that *you* are the robot that he created."

"Really? Then prove it," Byerley said.

"We can search your teacher's house in the country," said Quinn. "I'm sure that we'll find the truth there."

"My teacher is a sick man," Byerley said. "It will be difficult to get a search warrant from the police."

After a few moments, Quinn spoke again. "Why don't you stop your campaign for election, Byerley? You can't win."

"I think that I can," Byerley said.

"Break one of the Three Laws of Robotics," Quinn said. "This will prove that you aren't a robot. But you won't be able to break any of the Three Laws. And so, people will believe that you *are* a robot."

---

One week before the election, Byerley's teacher returned from the country. But he did not return to Byerley's home. A car took him to a house in a different part of the city.

"Stay here, until the election campaign is finished," Byerley told him.

"Do you think that there's any danger?" John asked.

"No. I do not really expect danger," Byerley said. "But if you are here, I will not worry about you. Did anyone give you trouble in the country?"

"Nobody," John said.

"And did everything go well for you?" Byerley asked.

"Yes, there won't be any problems," John replied.

"Good," said Byerley. "Take care of yourself, and watch the television tomorrow."

---

Lenton, Byerley's election campaign manager, was worried. His job had been very difficult. Byerley would not listen to Lenton's advice.

"I am going to talk to the people," Byerley said.

"You can't, Steve!" Lenton said, worried. "There are

too many protestors in the city. They won't listen to your arguments. Quinn has made them angry and frightened. It will be too dangerous for you."

"I am not in danger," Byerley said.

"Not in danger?" Lenton repeated. "There will be fifty thousand protesters downtown. They want all robots to be destroyed. They think that *you* are a robot! They won't listen to you. They'll attack you!"

---

The huge crowd of people filled the downtown area. And millions of people were watching on television. The news about the election had been told all around the world. Everyone wanted to know if Quinn was right. *Was* Stephen Byerley a robot?

The people shouted and screamed angrily. Byerley went on speaking, but they would not listen to him.

Suddenly, Byerley saw a thin man at the front of the crowd. He was trying to say something to Byerley.

Byerley leaned forward. "I cannot hear you," he said. "Come up here. If you have a question, I will answer it."

When the crowd saw the thin man standing beside Byerley, they slowly became quieter. At last there was silence.

"Do you have a question?" Byerley asked.

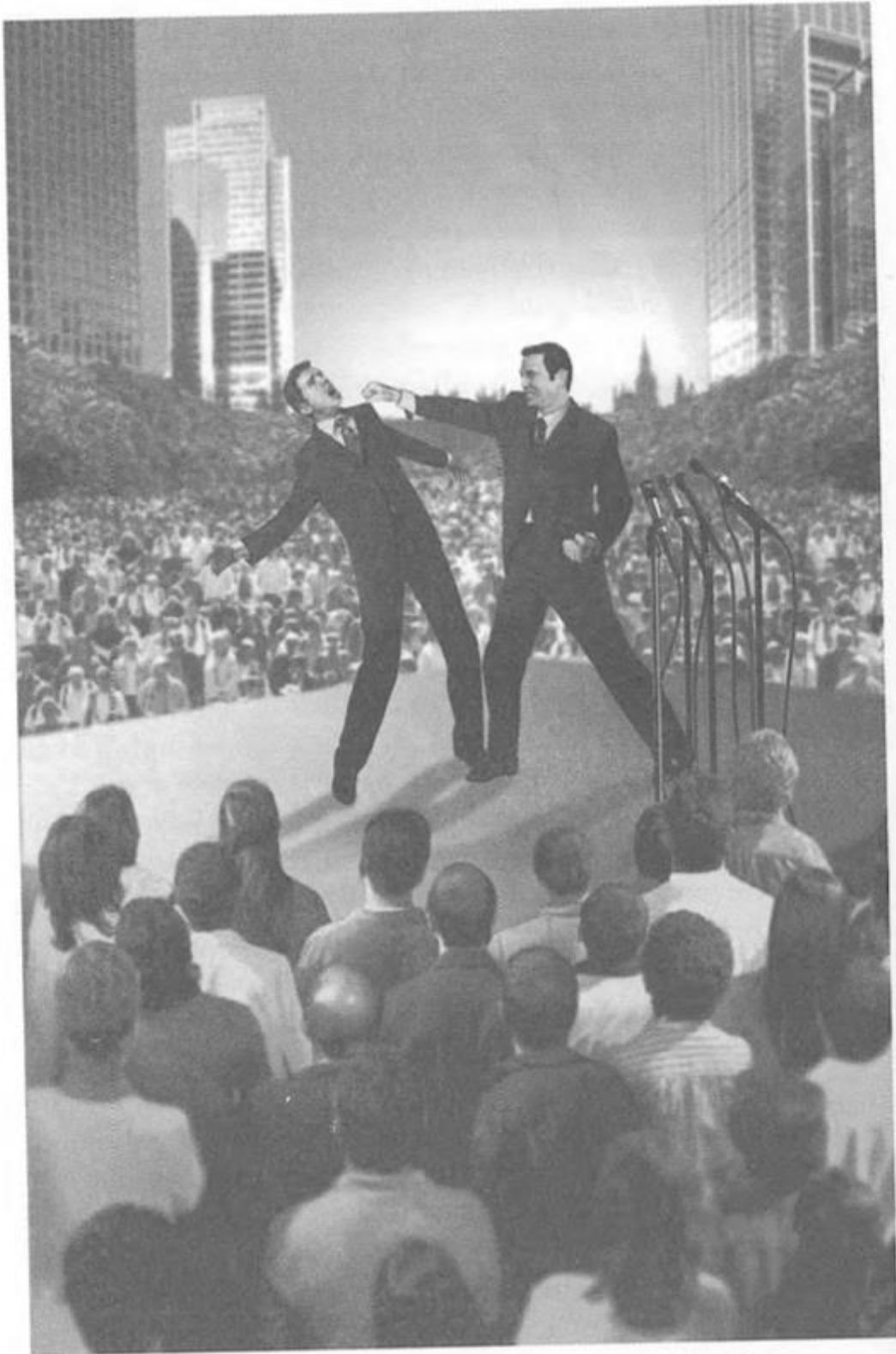
The thin man stared at Byerley. "You say that you're not a robot!" he shouted. "Then prove it! Hit me! You can't hit a human, you...monster!"

Everyone waited and watched.

"I have no reason to hit you," Byerley said.

The thin man laughed loudly. "*You can't* hit me!" he shouted. "You *won't* hit me. You're not human. You're a monster."

Then suddenly and quickly, Stephen Byerley moved. In front of the crowd, and in front of millions of people who were watching on television, he hit the man. He lifted his hand and hit the thin man on his chin. The man fell to the ground.



*He lifted his hand and hit the thin man on his chin.*

"I am sorry," Byerley said. He gently lifted the man and turned to the guards. "Please take him inside. I want to speak to him later."

Susan Calvin had seen Byerley hit the man. Now she started to drive away. Suddenly, a reporter ran after the robot-psychologist and shouted a question at her.

"Yes, he's human," she replied.

The reporter left immediately. Nobody listened to the rest of Byerley's speech.

---

Dr Calvin and Stephen Byerley met only once more. It was the week before Byerley became mayor. And it was late—past midnight.

"You don't look tired," said Calvin.

Byerley smiled. "Do not tell Quinn," he said, "but I may not sleep for a long time."

"I won't tell him," she replied. "However, Quinn's theory was interesting. Was it true?" she asked.

"Parts of his theory were true," he replied. "Stephen Byerley was a young lawyer. He wanted everyone to live better lives. He was interested in politics, and he argued well. He was also good at biophysics. But Stephen Byerley had a terrible accident, and he was hurt very badly. He had many scars on his face and body. Soon after the accident, he disappeared. Somehow, he got a positronic brain and grew a body around it. He created the most advanced robot of all, and he taught it to be like himself. Then he named the machine, Stephen Byerley, and sent it out into the world. Byerley, himself, stayed in his hiding place and became a teacher. Nobody ever saw—"

"Then Quinn's theory was destroyed when you hit a man," Calvin said quickly. "How did that happen?"

"Quinn does not know this, but he helped me," Byerley replied. "My men told people that I had never hit anyone. 'If Stephen Byerley refuses to hit someone, that will prove that

he is a robot,' said my men. This was my plan, and this is what my men told everyone. Next, I decided to make a speech. I guessed that someone would test me with the Laws of Robotics. Someone would tell me to hit him. And that is what happened. Of course, after that I was elected."

The robot-psychologist nodded. "I like robots," she said. "I like robots more than humans. I think that a robot would be an excellent politician. A robot would be truthful, careful and fair. And he wouldn't be able to harm humans. A robot would be an excellent leader."

"But a robot might fail because his brain is not as complex as a human brain," Byerley said.

"People can give him advice," Calvin said. "Even human politicians cannot succeed without advisors." She smiled.

"Why are you smiling, Dr Calvin?" Byerley said.

"Because an important part of Mr Quinn's theory was wrong," she replied.

"What do you mean?" Byerley asked.

"Quinn forgot one important thing," said Calvin.

"I do not understand," Byerley said.

Dr Calvin stood up. "There's one time when a robot can hit a man, without breaking the First Law. Just one time," she said.

"And when is that?" Byerley asked.

Dr Calvin went toward the door. "When the 'man' is another robot," she said quietly, and smiled. "Goodbye, Mr Byerley. Five years from now, there'll be an election for the position of Regional Coordinator. I hope that you're elected."

---

*I stared at Susan Calvin. I was horrified. "Is that true?" I asked. "Was Byerley a robot?"*

*"We can never be completely sure," she replied. "I think that he was. But when he died, Byerley's body was destroyed. Nobody*



will ever be able to prove if he was a robot, or a human. Anyway, it wasn't a problem, was it?"

"Well..." I said.

"Stephen Byerley was a very good mayor. And five years later, he did become Regional Coordinator," Calvin said. "And when the Regions of Earth formed the Federation, in 2044, he became the first World Coordinator. And by that time, the Machines were controlling everything."

"But—" I stopped.

"And that is all," said Dr Calvin, as she stood up. "I saw how robots were developed. In the beginning, they couldn't speak and men were their masters. Now robots are extremely clever and powerful. They control the lives of humans. It will be the Machines who decide who lives, and who dies. I'm old and tired. My life will soon end. Young man, you'll see what comes next."

I never saw Susan Calvin again. She died last month, at the age of eighty-two.