

COMMON SENSE

JOE, THE RIGHT HAND head of Joe-Jim, addressed his words to Hugh Hoyland. "All right, smart boy, you've convinced the Chief Engineer." He gestured toward Bill Ertz with the blade of his knife, then resumed picking Jim's teeth with it. "So what? Where does it get you?"

"I've explained that," Hugh Hoyland answered irritably. "We keep on, until every scientist in the Ship, from the Captain to the greenest probationer, knows that the Ship moves and believes that we can make it move. Then we'll finish the Trip, as Jordan willed. How many knives can you muster?" he added.

"Well, for the love of Jordan! Listen, have you got some fool idea that we are going to help you with this crazy scheme?"

"Naturally. You're necessary to it."

"Then you had better think up another think. That's out. Bobo! Get out the checkerboard."

"O.K., Boss." The microcephalic dwarf hunched himself up off the floor plates and trotted across Joe-Jim's apartment.

"Hold it, Bobo." Jim, the left-hand head, had spoken. The dwarf stopped dead, his narrow forehead wrinkled. The fact that his two-headed master occasionally failed to agree as to what Bobo should do was the only note of insecurity in his tranquil bloodthirsty existence.

"Let's hear what he has to say," Jim continued. "There may be some fun in this."

"Fun! The fun of getting a knife in your ribs. Let me point out that they are my ribs, too. I don't agree to it."

"I didn't ask you to agree; I asked you to listen. Leaving fun out of it, it may be the only way to keep a knife out of our ribs."

"What do you mean?" Joe demanded suspiciously. "You heard what Ertz had to say." Jim flicked a thumb toward the prisoner. "The Ship's officers are planning to clean out the upper levels. How would you like to go into the Converter, Joe? You can't play checkers after we're broken down into hydrogen."

"Bunk! The Crew can't exterminate the muties; they've tried before."

Jim turned to Etrz. "How about it?"

Ertz answered somewhat diffidently, being acutely aware of his own changed status from a senior Ship's officer to prisoner of war. He felt befuddled anyhow; too much had happened and too fast. He had been kidnaped, hauled up to the Captain's veranda, and had there gazed out at the stars. The stars.

His hard-boiled rationalism included no such concept. If an Earth astronomer had had it physically demonstrated to him that the globe spun on its axis because someone turned a crank, the upset in evaluations could have been no greater.

Besides that, he was acutely aware that his own continued existence hung in fine balance. Joe-Jim was the first upper-level mutie he had ever met other than in combat, knife to knife. A word from him to that great ugly dwarf sprawled on the deck-- He chose his words. "I think the Crew would be successful, this time. We . . . they have organized for it. Unless there are more of you than we think there are and better organized, I think it could be done. You see . . . well, uh, I organized it."

"You?"

Commander Phineas Narby, Executive Assistant to Jordan's Captain, in rummaging through the desk of the Chief Engineer was amused to find that Bill Ertz had secreted therein a couple of Unnecessary books. There were the usual Sacred books, of course, including the priceless _Care and Maintenance of the Auxiliary Fourstage Converter_ and the _Handbook of Power, Light, and Conditioning, Starship Vanguard_. These were Sacred books of the first order, bearing the imprint of Jordan himself, and could lawfully be held only by the Chief Engineer.

Narby considered himself a skeptic and rationalist. Belief in Jordan was a good thing -- for the Crew. Nevertheless the sight of a title page with the words 'Jordan Foundation' on it stirred up within him a trace of religious awe such as he had not felt since before he was admitted to scientisthood.

He knew that the feeling was irrational; probably there had been at some time in the past some person or persons called Jordan. Jordan might have been an early engineer or captain who codified the common sense and almost instinctive rules for running the Ship. Or, as seemed more likely, the Jordan myth went back much farther than this book in his hand, and its author had simply availed himself of the ignorant superstitions of the Crew to give his writings authority. Narby knew how such things were done; he planned to give the new policy with respect to the muties the same blessing of Jordan when the time was ripe for it to be put into execution. Yes, order and discipline and belief in authority were good things, for the Crew. It was equally evident that a rational, coolheaded common sense was a proper attribute for the scientists who were custodians of the Ship's welfare, common sense and a belief in nothing but facts.

He admired the exact lettering on the pages of the book he held. They certainly had excellent clerks in those ancient times; not the sloppy draftsmen he was forced to put up with, who could hardly print two letters alike.

He made a mental note to study these two indispensable handbooks of the engineering department before turning them over to Ertz's successor. It would be well, he thought, not to be too dependent on the statements of the Chief Engineer when he himself succeeded to the captaincy. Narby had no particular respect for engineers, largely because he had no particular talent for engineering. When he had first reached scientisthood and had been charged to defend the spiritual and material welfare of the Crew, had sworn to uphold the Teachings of Jordan, he soon discovered that administration and personnel management were more in his lines than tending the converter or servicing the power lines. He had served as clerk, village administrator, recorder to the Council, personnel officer, and was now chief executive for Jordan's Captain himself, ever since an unfortunate and rather mysterious accident had shortened the life of Narby's predecessor in that post.

His decision to study up on engineering before a new Chief Engineer was selected brought to mind the problem of choosing a new chief. Normally the Senior Watch Officer for the Converter would become Chief Engineer when a chief made the Trip, but in this case, Mort Tyler, the Senior Watch, had made the Trip at the same time; his body had been found, stiff and cold, after the mutie raid which had rescued that heretic, Hugh Hoyland. That left the choice wide open and Narby was a bit undecided as to whom he should suggest to the Captain.

One thing was certain; the new chief must not be a man with as much aggressive initiative as Ertz. Narby admitted that Ertz had done a good job in organizing the Crew for the proposed extermination of the muties, but his very efficiency had made him too strong a candidate for succession to the captaincy, if and when. Had he thought about it overtly Narby might have admitted to himself that the present Captain's life span had extended unduly because Narby was not absolutely certain that Ertz would not be

selected. What he did think was that this might be a good time for the old Captain to surrender his spirit to Jordan. The fat old fool had long outlived his usefulness; Narby was tired of having to wheedle him into giving the proper orders. If the Council were faced with the necessity of selecting a new Captain at this time, there was but one candidate available. Narby put the book down, his mind made up.

The simple decision to eliminate the old Captain carried with it in Narby's mind no feeling of shame, nor sin, nor disloyalty. He felt contempt but not dislike for the Captain, and no mean spirit colored his decision to kill him. Narby's plans were made on the noble level of statesmanship. He honestly believed that his objective was the welfare of the entire Crew; common-sense administration, order and discipline, good eating for everyone. He selected himself because it was obvious to him that he was best fitted to accomplish those worthy ends. That some must make the Trip in order that these larger interests be served he did not find even mildly regrettable, but he bore them no malice.

"What in the Huff are you doing at my desk?"

Narby looked up to see the late Bill Ertz standing over him, not looking pleased. He looked again, then as an afterthought closed his mouth. He had been so certain, when Ertz failed to reappear after the raid, that he had made the Trip and was in all probability butchered and eaten; so certain that it was now a sharp wrench to his mind to see Ertz standing before him, aggressively alive. But he pulled himself together.

"Bill! Jordan bless you, man, we thought you had made the Trip! Sit down, sit down, and tell me what happened to you."

"I will if you will get out of my chair," Ertz answered bitingly.

"Oh, sorry!" Narby hastily vacated the chair at Ertz's desk and found another.

"And now," Ertz continued, taking the seat Narby had left, "you might explain why you were going through my writings."

Narby managed to look hurt. "Isn't that obvious? We assumed you were dead. Someone had to take over and attend to your department until a new chief was designated. I was acting on behalf of the Captain."

Ertz looked him in the eyes. "Don't give me that guff, Narby. You know and I know who puts words in the Captain's mouth; we've planned it often enough. Even if you did think I was dead, it seems to me you could wait longer than the time between two sleeps to pry through my desk."

"Now really, old man, when a person is missing after a mutie raid, it's a common-sense assumption that he has made the Trip."

"O.K., O.K., skip it. Why didn't Mort Tyler take over in the meantime?"

"He's in the Converter."

"Killed, eh? But who ordered him put in the Converter? That much mass will make a terrific peak in the load."

"I did, in place of Hugh Hoyland. Their masses were nearly the same, and your requisition for the mass of Hugh Hoyland was unfilled."

"Nearly the same isn't good enough in handling the Converter. I'll have to check on it." He started to rise.

"Don't get excited," said Narby. "I'm not an utter fool in engineering, you know. I ordered his mass to be trimmed according to the same schedule you had laid out for Hoyland."

"Well, all right. That will do for now. But I will have to check it. We can't afford to waste mass."

"Speaking of waste mass," Narby said sweetly, "I found a couple of Unnecessary books in your

you count?"

"Sure, I can count that much. I can count twice that much. One and one makes two, and one more makes three, and one more makes four, and one makes five, and--"

"That's enough. I see you can. But I'm relying more on your loyalty and your knife than I am on your mathematical ability. Meet me there as soon as you can. Go up somewhere where you won't be noticed."

Forty-one was still on watch when they reached the rendezvous. Ertz called him by name while standing out of range of slingshot or thrown knife, a reasonable precaution in dealing with a creature who had grown to man size by being fast with his weapons. Once identification had been established, he directed the guard to find Hugh Hoyland. He and Alan sat down to wait.

Forty-one failed to find Hugh Hoyland at Joe-Jim's apartment. Nor was Joe-Jim there. He did find Bobo, but the pinhead was not very helpful. Hugh, Bobo told him, had gone up where-everybody-flies. That meant very little to Forty-one; he had been up to no-weight only once in his life. Since the level of weightlessness extended the entire length of the Ship, being in fact the last concentric cylinder around the Ship's axis, not that Forty-one could conceive it in those terms, the information that Hugh had headed for no-weight was not helpful.

Forty-one was puzzled. An order from Joe-Jim was not to be ignored and he had got it through his not overbright mind that an order from Ertz carried the same weight. He woke Bobo up again. "Where is the Two Wise Heads?"

"Gone to see knifemaker." Bobo closed his eyes again.

That was better. Forty-one knew where the knifemaker lived. Every mutie had dealings with her; she was the indispensable artisan and tradesman of mutie country. Her person was necessarily taboo; her workshop and the adjacent neighborhood were neutral territory for all. He scurried up two decks and hurried thence.

A door reading THERMODYNAMIC LABORATORY: KEEP OUT was standing open. Forty-one could not read; neither the name nor the injunction mattered to him. But he could hear voices, one of which he identified as coming from the twins, the other from the knifemaker. He walked in. "Boss," he began.

"Shut up," said Joe. Jim did not look around but continued his argument with the Mother of Blades. "You'll make knives," he said, "and none of your lip."

She faced him, her four calloused hands set firmly on her broad hips. Her eyes were reddened from staring into the furnace in which she heated her metal; sweat ran down her wrinkled face into the sparse gray mustache which disfigured her upper lip, and dripped onto her bare chest. "Sure I make knives," she snapped. "Honest knives. Not pig-stickers like you want me to make. Knives as long as your arm, ptui!" She spat at the cherry-red lip of the furnace.

"Listen, you old Crew bait," Jim replied evenly, "you'll make knives the way I tell you to, or I'll toast your feet in your own furnace. Hear me?"

Forty-one was struck speechless. No one ever talked back to the Mother of Blades; the Boss was certainly a man of power!

The knifemaker suddenly cracked. "But that's not the right way to make knives," she complained shrilly. "They wouldn't balance right. I'll show you." She snatched up two braces of knives from her workbench and let fly at a cross-shaped target across the room -- not in succession, but all four arms swinging together, all four blades in the air at once. They spwighed into the target, a blade at the extreme

"He had no time to make a writing. He gave me a word message."

"What is it?"

Alan shook his head. "It is private, for Commander Narby only. I have orders."

The clerk looked his exasperation.

But, being only a probationer, he forewent the satisfaction of direct and immediate disciplining of the recalcitrant churl in favor of the safer course of passing the buck higher up.

The chief clerk was brief. "Give me the message."

Alan braced himself and spoke to a scientist in a fashion he had never used in his life, even to one as junior, as this passed clerk. "Sir, all I ask is for you to tell Commrnder Narby that I have a message for him from Chief Engineer Ertz. If the message is not delivered, I won't be the one to go to the Converter! But I don't dare give the message to anyone else."

The under official pulled at his lip, and decided to take a chance on disturbing his superior.

Alan delivered his message to Narby in a low voice in order that the orderly standing just outside the door might not overhear. Narby stared at him. "Ertz wants me to come along with you up to mutie country?"

"Not all the way up to mutie country, sir. To a point in between, where Hugh Hoyland can meet you."

Narby exhaled noisily. "It's preposterous. I'll send a squad of knives up to fetch him down to me."

Alan delivered the balance of his message. This time he carefully raised his voice to ensure that the orderly, and, if possible, others might hear his words. "Ertz said to tell you that if you were afraid to go, just to forget the whole matter. He will take it up with the Council himself."

Alan owed his continued existence thereafter to the fact that Narby was the sort of man who lived by shrewdness rather than by direct force. Narby's knife was at his belt; Alan was painfully aware that he had been required to deposit his own with the master-at-arms.

Narby controlled his expression. He was too intelligent to attribute the insult to the oaf before him, though he promised himself to give said oaf a little special attention at a more convenient time. Pique, curiosity, and potential loss of face all entered into his decision. "I'm coming with you," he said savagely. "I want to ask him if you got his message straight."

Narby considered having a major guard called out to accompany him, but he discarded the idea. Not only would it make the affair extremely public before he had an opportunity to judge its political aspects, but also it would cost him almost as much face as simply refusing to go. But he inquired nervously of Alan as Alan retrieved his weapon from the master-at-arms, "You're a good knife?"

"None better," Alan agreed cheerfully.

Narby hoped that the man was not simply boasting. Muties! Narby wished that he himself had found more time lately for practice in the manly arts.

Narby gradually regained his composure as he followed Alan up toward low-weight. In the first place nothing happened, no alarms; in the second place Alan was obviously a cautious and competent scout, one who moved alert and noiselessly and never entered a deck without pausing to peer cautiously around before letting his body follow his eye. Narby might have been more nervous had he hearing what Alan did hear: little noises from the depths of the great dim passageways, rustlings which told him that their progress was flanked on all sides. This worried Alan subconsciously, although he had expected something of the sort; he knew that both Hugh and Joe-Jim were careful captains who would not neglect to cover an approach. He would have worried more if he had not been able detect a reconnaissance

which should have been present.

When he approached the rendezvous some twenty decks above the highest civilized level, he stopped and whistled. A whistle answered him. "It's Alan," he called out.

"Come up and show yourself?" Alan did so, without neglecting his usual caution. When he saw no one but his friends: Ertz, Hugh, Joe-Jim, and Bobo, he motioned for Narby to follow him.

The sight of Joe-Jim and Bobo broke Narby's unsteady calm with a sudden feeling that he had been trapped. He snatched at his knife and backed clumsily down the stair then turned. Bobo's knife was out even faster. For a split moment the outcome hung balanced, ready to fall either way. But Joe-Jim slapped Bobo across the face, took his knife from him and let it clatter to the deck, then relieved him of his slingshot.

Narby was in full flight, with Hugh and Ertz calling vainly after him. "Fetch him, Bobo!" Jim commanded, "and do not hurt him." Bobo lumbered away.

He was back in fairly short order. "Run fast," he commented. He dropped Narby to the deck where the officer lay almost quiet while he fought to catch his breath. Bobo took Narby's knife from his own belt and tried it by shaving coarse black hairs from his left forearm. "Good blade," he approved.

"Give it back to him," Jim ordered. Bobo looked extremely startled but complied wistfully. Joe-Jim returned Bobo's own weapons to him.

Narby matched Bobo's surprise at regaining his sidearm, but he concealed it better. He even managed to accept it with dignity.

"Look," Ertz began in worried tones, "I'm sorry you got your wind up, Fin. Bobo's not a bad sort. It was the only way to get you back."

Narby fought with himself to regain the cool self-discipline with which he habitually met the world. Damn! he told himself, this situation is preposterous. Well... "Forget it," he said shortly. "I was expecting to meet you; I didn't expect a bunch of armed muties. You have an odd taste in playmates, Ertz."

"Sorry," Bill Ertz replied, "I guess I should have warned you." a piece of mendacious diplomacy. "But they're all right. Bobo you've met. This is Joe-Jim. He's a . . . a sort of a Ship's officer among the muties."

"Good eating," Joe acknowledged politely.

"Good eating," Narby replied mechanically.

"Hugh you know, I think." Narby agreed that he did.

An embarrassed pause followed. Narby broke it.

"Well," he said, "you must have had some reason to send word for me to come up here. Or was it just to play games?"

"I did," Ertz agreed. "I -- Shucks, I hardly know where to start. See here, Narby, you won't believe this, but I've seen. Everything Hugh told us was true. I've been in the Control Room. I've seen the stars. I know?"

Narby stared at him. "Ertz," he said slowly, "you've gone out of your mind."

Hugh Hoyland spoke up excitedly. "That's because you haven't seen. It moves, look you. The Ship moves like a--"

"Fit handle this," Ertz cut in. "listen to me, Narby. What it all means you will soon decide for

longer to convince Ertz that the way to rendezvous in space was to apply a force that pushed one away from where one wished to go, that is to say, dig in the heels, put on the brakes, kill the momentum.

In fact it took a series of experiments in free flight on the level of weightlessness to sell him the idea, otherwise he would have favored finishing the Trip by the simple expedient of crashing headlong into the star at top Speed. Thereafter Hugh and Joe-Jim calculated how to apply acceleration to kill the speed of the Vanguard and warp her into an eccentric ellipse around the star. After that, they would search for planets.

Ertz had a little trouble understanding the difference between a planet and a star. Alan never did get it.

"If my numbering is correct," Hugh informed Ertz, "we should start accelerating any time now."

"O.K.," Ertz told him. "Main Drive is ready: over two hundred bodies and a lot of waste mass.

What are waiting for?"

"Let's see Narby and get permission to start."

"Why ask him?"

Hugh shrugged. "He's Captain. He'll want to know."

"All right. Let's pick up Joe-Jim and get on with it." They left Hugh's apartment and went to Joe-Jim's. Joe-Jim was not there, but they found Alan looking for him, too.

"Squatty says he's gone down to the Captain's office," Alan informed him.

"So? It's just as well. We'll see him there. Alan, old boy, you know what?"

"What?"

"The time has arrived. We're going to do it! Start moving the Ship!" Alan looked round-eyed. "Gee! Right now?"

"Just as soon as we can notify the Captain. Come along, if you like."

"You bet! Wait while I tell my woman." He darted away to his own quarters nearby.

"He pampers that wench," remarked Ertz.

"Sometimes you can't help it," said Hugh with a faraway look.

Alan returned promptly, although it was evident that he had taken time to change to a fresh breechcloth. "O.K.," he bubbled. "Let's go!"

Alan approached the Captain's office with a proud step. He was an important guy now, he exulted to himself. He'd march on through with his friends while the guards saluted; no more of this business of being pushed around.

But the doorkeeper did not stand aside, although he did salute, while placing himself so that he filled the door. "Gangway, man!" Ertz said gruffly.

"Yes, sir," acknowledged the guard, without moving. "Your weapons, please."

"What! Don't you know me, you idiot? I'm the Chief Engineer."

"Yes, sir. Leave your weapons with me, please. Regulations."

Ertz put a hand on the man's shoulder and shoved. The guard stood firm. "I'm sorry, sir. No one approaches the Captain wearing weapons. No one."

"Well, I'll be damned!"

out from the stars.

There is a misconception, geocentric and anthropomorphic, common to the large majority of the earth-bound, which causes them to visualize a planetary system stereoscopically. The mind's eye sees a sun, remote from a backdrop of stars, and surrounded by spinning apples: the planets. Step out on your balcony and look. Can you tell the planets from the stars? Venus you may pick out with ease, but could you tell it from Canopus, if you had not previously been introduced? That little red speck: is it Mars, or is it Antares? How would you know, if you were as ignorant as Hugh Hoyland? Blast for Antares, believing it to be a planet, and you will never live to have grandchildren.

The great planet that they crawled up on, till it showed a visible naked-eye disc, was larger than Jupiter, a companion to the star, somewhat younger and larger than the Sun, around which it swung at a lordly distance. Hugh blasted back, killing his speed over many sleeps, to bring the Ship into a path around the planet. The maneuver brought him close enough to see its moons.

Luck helped him again. He had planned to ground the great planet, knowing no better. Had he been able to do so they would have lived just long enough to open the air-lock.

But he was short of mass, after the titanic task of pulling them out of the headlong hyperbolic plunge around an arc past the star and warping them into a closed orbit about the star, then into a subordinate orbit around the giant planet. He pored over the ancient books, substituted endlessly in the equations the ancients had set down as the laws for moving bodies, figured and refigured, and tested even the calm patience of Chloe. The other wife, the unnamed one, kept out of his way after losing a tooth, quite suddenly.

But he got no answer that did not require him to sacrifice some, at least, of the precious, irreplaceable ancient books for fuel. Yes, even though they stripped themselves naked and chucked in their knives, the mass of the books would still be needed.

He would have preferred to dispense with one of his wives. He decided to ground on one of the moons.

Luck again. Coincidence of such a colossal proportion that one need not be expected to believe it, for the moon of that planet was suitable for human terrestrial life. Never mind, skip over it, rapidly; the combination of circumstances is of the same order needed to produce such a planet in the first place. Our own planet, under our own sun is of the "There ain't no such animal" variety. It is a ridiculous improbability.

Hugh's luck was a ridiculous improbability.

Good design handled the next phase. Although he learned to maneuver the little Ship out in space where there is elbow room, landing is another and a ticklish matter. He would have crashed any spacecraft designed before the designing of the Vanguard. But the designers of the Vanguard had known that the Ship's auxiliary craft would be piloted and grounded by at least the second generation of explorers; green pilots must make those landings unassisted. They planned for it.

Hugh got the vessel down into the stratosphere and straightened it triumphantly into a course that would with certainty kill them all.

The autopilots took over.

Hugh stormed and swore, producing some words which diverted Alan's attention and admiration from the view out of the port. But nothing he could do would cause the craft to respond. It settled in its

"Gosh!"

Their first sortie took them all of fifty feet from the Ship. They huddled close together for silent comfort, and watched their feet to keep from stumbling on this strange uneven deck. They made it without incident until Alan looked up from the ground and found himself for the first time in his life with nothing close to him. He was hit by vertigo and acute agoraphobia; he moaned, closed his eyes and fell.

"What in the Ship?" demanded Ertz, looking around. Then it hit him.

Hugh fought against it. It pulled him to his knees, but he fought it, steadying himself with one hand on the ground. However, he had the advantage of having stared out through the view port for endless time; neither Alan nor Ertz were cowards.

"Alan!" his wife shrieked from the open door. "Alan! Come back here!" Alan opened one eye, managed to get it focused on the Ship, and started inching back on his belly.

"Man!" commanded Hugh. "Stop that! Sit up."

Alan did so, with the air of a man pushed too far. "Open your eyes!" Alan obeyed cautiously, reclosed them hastily.

"Just sit still and you'll be all right," Hugh added. "I'm all right already." To prove it he stood up. He was still dizzy, but he made it. Ertz sat up.

The sun had crossed a sizable piece of the sky, enough time had passed for a well-fed man to become hungry, and they were not well fed. Even the women were outside; that had been accomplished by the simple expedient of going back in and pushing them out. They had not ventured away from the side of the Ship, but sat huddled against it. But their menfolk had even learned to walk singly, even in open spaces. Alan thought nothing of strutting a full fifty yards away from the shadow of the Ship, and did so more than once, in full sight of the women.

It was on one such journey that a small animal native to the planet let his curiosity exceed his caution. Alan's knife knocked him over and left him kicking. Alan scurried to the spot, grabbed his fat prize by one leg, and bore it proudly back to Hugh. "Look, Hugh, look! Good eating!"

Hugh looked with approval. His first strange fright of the place had passed and had been replaced with a deep warm feeling, a feeling that he had come at last to his long home. This seemed a good omen.

"Yes," he agreed. "Good eating. From now on, Alan, always Good Eating."