

Common Time

". . . the days went slowly round and round, endless and uneventful as cycles in space. Time, and time-pieces! How many centuries did my hammock tell, as pendulum-like it swung to the ship's dull roll, and ticked the hours and ages."

Herman Melville, in *Mardi*

Don't move.

It was the first thought that came into Garrard's mind when he awoke, and perhaps it saved his life. He lay where he was, strapped against the padding, listening to the round hum of the engines. That in itself was wrong; he should be unable to hear the overdrive at all.

He thought to himself: *Has it begun already?*

Otherwise everything seemed normal. The DPC-3 had crossed over into interstellar velocity, and he was still alive, and the ship was still functioning. The ship should at this moment be traveling at 22.4 times the speed of light at 4,157,000 miles per second.

Somehow Garrard did not doubt that it was. On both previous tries, the ships had whiffed away toward Alpha Centauri at the proper moment when the overdrive should have cut in; and the split second of residual image after they had vanished, subjected to spectroscopy, showed a Doppler shift which tallied with the acceleration predicted for that moment by Haertel.

The trouble was not that Brown and Cellini hadn't gotten away in good order. It was simply that neither of them had ever been heard from again.

Very slowly, he opened his eyes. His eyelids felt terrifically heavy. As far as he could judge from the pressure of the couch against his skin, the gravity was normal; nevertheless, moving his eyelids seemed almost an impossible job.

After long concentration, he got them fully open. The instrument chassis was directly before him, extended over his diaphragm on its elbow joint. Still without moving anything but his eyes and those only with the utmost patience he checked each of the meters. Velocity: 22.4 c. Operating temperature: normal. Ship temperature: 37 C. Air pressure: 778 mm. Fuel: No. 1 tank full. No. 2 tank full. No. 3 tank full. No. 4 tank nine tenths full. Gravity: 1 g. Calendar: stopped.

He looked at it closely, though his eyes seemed to focus very slowly, too. It was, of course, something more than a calendar; it was an all-purpose clock, designed to show him the passage of seconds, as well as of the ten months his trip was supposed to take to the double star. But there was no doubt about it: the second hand was motionless.

That was the second abnormality. Garrard felt an impulse to get up and see if he could start the clock again. Perhaps the trouble had been temporary and safely in the past. Immediately there sounded in his head the injunction he had drilled into himself for a full month before the trip had begun

Don't move!

Don't move until you know the situation as far as it can be known without moving. Whatever it was that had snatched Brown and Cellini irretrievably beyond human ken was potent, and totally beyond anticipation. They had both been excellent men, intelligent, resourceful, trained to the point of diminishing returns and not a micron beyond that point the best men in the Project. Preparations for every knowable kind of trouble had been built into their ships, as they had been built into the DFC-3. Therefore, if there was something wrong nevertheless, it would be something that might strike from some commonplace quarter and strike only once.

He listened to the humming. It was even and placid, and not very loud, but it disturbed him deeply. The overdrive was supposed to be inaudible, and the tapes from the first unmanned test vehicles had recorded no such hum. The noise did not appear to interfere with the overdrive's operation, or to indicate any failure in it. It was just an irrelevancy for which he could find no reason.

But the reason existed. Garrard did not intend to do so much as draw another breath until he found out what it was.

Incredibly, he realized for the first time that he had not in fact drawn one single breath since he had first come to. Though he felt not the slightest discomfort, the discovery called up so overwhelming a flash of panic that he very nearly sat bolt upright on the couch. Luckily or so it seemed, after the panic had begun to ebb the curious lethargy which had affected his eyelids appeared to involve his whole body, for the impulse was gone before he could summon the energy to answer it. And the panic, poignant though it had been for an instant, turned out to be wholly intellectual. In a moment, he was observing that his failure to breathe in no way discommoded him as far as he could tell it was just there, waiting to be explained . . .

Or to kill him. But it hadn't, yet.

Engines humming; eyelids heavy; breathing absent; calendar stopped. The four facts added up to nothing. The temptation to move something even if it were only a big toe was strong, but Garrard fought it back. He had been awake only a short while half an hour at most and already had noticed four abnormalities. There were bound to be more, anomalies more subtle than these four; but available to close examination before he had to move. Nor was there anything in particular that he had to do, aside from caring for his own wants; the Project, on the chance that Brown's and Cellini's failure to return had resulted from some tampering with the overdrive, had made everything in the DFC-3 subject only to the computer. In a very real sense, Garrard was just along for the ride. Only when the overdrive was off could he adjust

Pock.

It was a soft, low-pitched noise, rather like a cork coming out of a wine bottle. It seemed to have come just from the right of the control chassis. He halted a sudden jerk of his head on the cushions toward it with a flat fiat of will. Slowly, he moved his eyes in that direction.

He could see nothing that might have caused the sound. The ship's temperature dial showed no change, which ruled out a heat noise from differential contraction or expansion the only possible explanation he could bring to mind.

He closed his eyes a process which turned out to be just as difficult as opening them had been and tried to visualize what the calendar had looked like when he had first come out of anesthesia. After he got a clear and he was almost sure accurate picture, Garrard opened his eyes again.

The sound had been the calendar, advancing one second. It was now motionless again, apparently stopped.

He did not know how long it took the second hand to make that jump, normally; the question had never come up. Certainly the jump, when it came at the end of each second, had been too fast for the eye to follow.

Belatedly, he realized what all this cogitation was costing him in terms of essential information. The calendar had moved. Above all and before anything else, he *must* know exactly how long it took it to move again . . .

He began to count, allowing an arbitrary five seconds lost. *One-and-a-six, one-and-a-seven, one-and-an-eight*

Garrard had gotten only that far when he found himself plunged into hell.

First, and utterly without reason, a sickening fear flooded swiftly through his veins, becoming more and more intense. His bowels began to knot, with infinite slowness. His whole body became a field of small, slow pulses not so much shaking him as putting his limbs into contrary joggling motions, and making his skin ripple gently under his clothing. Against the hum another sound became audible, a nearly subsonic thunder which seemed to be inside his head. Still the fear mounted, and with it came the pain, and the tenesmus boardlike stiffening of his muscles, particularly across his abdomen and his shoulders, but affecting his forearms almost as grievously. He felt himself beginning, very gradually, to double at the middle, a motion about which he could do precisely nothing a terrifying kind of dynamic paralysis. . . .

It lasted for hours. At the height of it, Garrard's mind, even his very personality, was washed out utterly; he was only a vessel of horror. When some few trickles of reason began to return over that burning desert of reasonless emotion, he found that he was sitting up on the cushions, and that with one arm he had thrust the control chassis back on its elbow so that it no longer jutted over his body. His clothing was wet with perspiration, which stubbornly refused to evaporate or to cool him. And his lungs ached a little, although he could still detect no breathing.

What under God had happened? Was it this that had killed Brown and Cellini? For it would kill Garrard, too if that he was sure, if it happened often. It would kill him even if it happened only twice more, if the next two such things followed the first one closely. At the very best it would make a slobbering idiot of him; and though the computer might bring Garrard and the ship back to Earth, it would not be able to tell the Project about this tornado of senseless fear.

The calendar said that the eternity in hell had taken three

seconds. As he looked at it in academic indignation, it said *pock* and condescended to make the total seizure four seconds long. With grim determination, Garrard began to count again.

He took care to establish the counting as an absolutely even, automatic process which would not stop at the back of his mind no matter what other problem he tackled along with it, or what emotional typhoons should interrupt him. Really compulsive counting cannot be stopped by anything not the transports of love nor the agonies of empires. Garrard knew the dangers in deliberately setting up such a mechanism in his mind, but he also knew how desperately he needed to time that clock tick. He was beginning to understand what had happened to him but he needed exact measurement before he could put that understanding to use.

Of course there had been plenty of speculation on the possible effect of the overdrive on the subjective time of the pilot, but none of it had come to much. At any speed below the velocity of light, subjective and objective time were exactly the same as far as the pilot was concerned. For an observer on Earth, time aboard the ship would appear to be vastly slowed at near-light speeds; but for the pilot himself there would be no apparent change.

Since flight beyond the speed of light was impossible although for slightly differing reasons by both the current theories of relativity, neither theory had offered any clue as to what would happen on board a translight ship. They would not allow that any such ship could even exist. The Haertel transformation, on which, in effect, the DFC-3 flew, was nonrelativistic: it showed that the apparent elapsed time of a translight journey should be identical in ship-time, and in the time of observers at both ends of the trip.

But since ship and pilot were part of the same system, both covered by the same expression in Haertel's equation, it had never occurred to anyone that the pilot and the ship might keep different times. The notion was ridiculous.

One-and-a-sevenhundredone, one-and-a-sevenhundredtwo, one - and - a - sevenhundredthree, one - and - a - sevenhundred four . . .

The ship was keeping ship-time, which was identical with observer-time. It would arrive at the Alpha Centauri system in ten months. But the pilot was keeping Garrard-time, and it was beginning to look as though he wasn't going to arrive at all.

It was impossible, but there it was. Something almost certainly an unsuspected physiological side effect of the overdrive field on human metabolism, an effect which naturally could not have been detected in the preliminary, robot-piloted tests of the overdrive had speeded up Garrard's subjective apprehension of time, and had done a thorough job of it.

The second hand began a slow, preliminary quivering as the calendar's innards began to apply power to it. *Seventy-hundred-forty-one, seventy-hundred-forty-two, seventy-hundred-forty-three ...*

At the count of 7,058 the second hand began the jump to

the next graduation. It took it several apparent minutes to get across the tiny distance, and several more to come completely to rest. Later still, the sound came to him:

pock.

In a fever of thought, but without any real physical agitation, his mind began to manipulate the figures. Since it took him longer to count an individual number as the number became larger, the interval between the two calendar ticks probably was closer to 7,200 seconds than to 7,058. Figuring backward brought him quickly to the equivalence he wanted:

One second in ship-time was two hours in Garrard-time.

Had he really been counting for what was, for him, two whole hours? There seemed to be no doubt about it. It looked like a long trip ahead.

Just how long it was going to be struck him with stunning force. Time had been slowed for him by a factor of 7200. He would get to Alpha Centauri in just 72,000 months.

Which was

Six thousand years!

Garrard sat motionless for a long time after that, the Nessus-shirt of warm sweat swathing him persistently, refusing even to cool. There was, after all, no hurry.

Six thousand years. There would be food and water and air for all that time, or for sixty or six hundred thousand years; the ship would synthesize his needs, as a matter of course, for as long as the fuel lasted, and the fuel bred itself. Even if Garrard ate a meal every three seconds of objective, or ship, time (which, he realized suddenly, he wouldn't be able to do, for it took the ship several seconds of objective time to prepare and serve up a meal once it was ordered; he'd be lucky if he ate once a day, Garrard-time), there would be no reason to fear any shortage of supplies. That had been one of the earliest of the possibilities for disaster that the Project engineers had ruled out in the design of the DFC-3.

But nobody had thought to provide a mechanism which would indefinitely refurbish Garrard. After six thousand years, there would be nothing left of him but a faint film of dust on the DFC-3's dully gloaming horizontal surfaces. His corpse might outlast him a while, since the ship itself was sterile but eventually he would be consumed by the bacteria which he carried in his own digestive tract. He needed those bacteria to synthesize part of his B-vitamin needs while he lived, but they would consume him without compunction once he had ceased to be as complicated and delicately balanced a thing as a pilot as any other kind of life.

Garrard was, in short, to die before the DFC-3 had gotten fairly away from Sol; and when, after 12,000 apparent years, the DFC-3 returned to Earth, not even his mummy would be still aboard.

The chill that went through him at that seemed almost unrelated to the way he thought he felt about the discovery; it lasted an enormously long time, and insofar as he could characterize it at all, it seemed to be a chill of urgency and excitement not at all the kind of chill he should be feeling

at a virtual death sentence. Luckily it was not as intolerably violent as the last such emotional convulsion; and when it was over, two clock ticks later, it left behind a residuum of doubt.

Suppose that this effect of time-stretching was only mental? The rest of his bodily processes might still be keeping ship-time; Garrard had no immediate reason to believe otherwise. If so, he would be able to move about only on ship-time, too; it would take many apparent months to complete the simplest task.

But he would live, if that were the case. His mind would arrive at Alpha Centauri six thousand years older, and perhaps madder, than his body, but he would live.

If, on the other hand, his bodily movements were going to be as fast as his mental processes, he would have to be enormously careful. He would have to move slowly and exert as little force as possible. The normal human hand movement, in such a task as lifting a pencil, took the pencil from a state of rest to another state of rest by imparting to it an acceleration of about two feet per second per second and, of course, decelerated it by the same amount. If Garrard were to attempt to impart to a two-pound weight, which was keeping ship-time, an acceleration of $14,440 \text{ ft/sec}^2$ in his time, he'd have to exert a force of 900 pounds on it.

The point was not that it couldn't be done but that it would take as much effort as pushing a stalled jeep. He'd never be able to lift that pencil with his forearm muscles alone; he'd have to put his back into the task.

And the human body wasn't engineered to maintain stresses of that magnitude indefinitely. Not even the most powerful professional weight-lifter is forced to show his prowess throughout every minute of every day.

Pock.

That was the calendar again; another second had gone by. Or another two hours. It had certainly seemed longer than a second, but less than two hours, too. Evidently subjective time was an intensively recompllicated measure. Even in this world of micro-time in which Garrard's mind, at least, seemed to be operating he could make the lapses between calendar ticks seem a little shorter by becoming actively interested in some problem or other. That would help, during the waking hours, but it would help only if the rest of his body were *not* keeping the same time as his mind. If it were not, then he would lead an incredibly active, but perhaps not intolerable, mental life during the many centuries of his awake-time, and would be mercifully asleep for nearly as long.

Both problems that of how much force he could exert with his body, and how long he could hope to be asleep in his mind merged simultaneously into the forefront of his consciousness while he still sat inertly on the hammock, their terms still much muddled together. After the single tick of the calendar, the ship or the part of it that Garrard could see from here settled back into complete rigidity. The sound of the engines, too, did not seem to vary in frequency or amplitude, at least as far as his ears could tell. He was still not

breathing. Nothing moved, nothing changed.

It was the fact that he could still detect no motion of his diaphragm or his rib cage that decided him at last. His body had to be keeping ship-time, otherwise he would have blacked out from oxygen starvation long before now. That assumption explained, too, those two incredibly prolonged, seemingly sourceless saturnalias of emotion through which he had suffered: they had been nothing more nor less than the response of his endocrine glands to the purely intellectual reactions he had experienced earlier. He had discovered that he was not breathing, had felt a flash of panic and had tried to sit up. Long after his mind had forgotten those two impulses, they had inched their way from his brain down his nerves to the glands and muscles involved, and actual, *physical* panic had supervened. When that was over, he actually *was* sitting up, though the flood of adrenalin had prevented his noticing the motion as he had made it. The later chillless violent, and apparently associated with the discovery that he might die long before the trip was completed actually had been his body's response to a much earlier mental command the abstract fever of interest he had felt while computing the time differential had been responsible for it.

Obviously, he was going to have to be very careful with apparently cold and intellectual impulses of any kind or he would pay for them *Intel* with a prolonged and agonizing glandular reaction. Nevertheless, the discovery gave him considerable satisfaction, and Garrard allowed it free play; it certainly could not hurt him to feel pleased for a few hours, and the glandular pleasure might even prove helpful if it caught him at a moment of mental depression. Six thousand years, after all, provided a considerable number of opportunities for feeling down in the mouth; so it would be best to encourage all pleasure moments, and let the after-reaction last as long as it might. It would be the instants of panic, of fear, of gloom, which he would have to regulate sternly the moment they came into his mind; it would be those which would otherwise plunge him into four, five, six, perhaps even ten, Garrard-hours of emotional inferno.

Pock.

There now, that was very good: there had been two Garrard-hours which he had passed with virtually no difficulty of any kind, and without being especially conscious of their passage. If he could really settle down and become used to this kind of scheduling, the trip might not be as bad as he had at first feared. Sleep would take immense bites out of it; and during the waking periods he could put in one hell of a lot of creative thinking. During a single day of ship time, Garrard could get in more thinking than any philosopher of Earth could have managed during an entire lifetime. Garrard could, if he disciplined himself sufficiently, devote his mind for a century to running down the consequences of a single thought, down to the last detail, and still have millennia left to go on to the next thought. What panoplies of pure reason could he not have assembled by the time 6,000 years had gone by? With sufficient concentration, he might come up with the solution to the Problem of Evil between breakfast

The micro-time in which he had been living had worn off, only a few objective minutes after the ship had gone into overdrive and he had come out of the anesthetic. The long intellectual agony, with its glandular counterpoint, had come to nothing. Garrard was now keeping ship-time.

Garrard sat back down on the hammock, uncertain whether to be bitter or relieved. Neither emotion satisfied him in the end; he simply felt unsatisfied. Micro-time had been bad enough while it lasted; but now it was gone, and everything seemed normal. How could so transient a thing have killed Brown and Cellini? They were stable men, more stable, by his own private estimation, than Garrard himself. Yet he had come through it. Was there more to it than this?

And if there was what, conceivably, could it be?

There was no answer. At his elbow, on the control chassis which he had thrust aside during that first moment of infinitely protracted panic, the calendar continued to tick. The engine noise was gone. His breath came and went in natural rhythm. He felt light and strong. The ship was quiet, calm, unchanging.

The calendar ticked, faster and faster. It reached and passed the first hour, ship-time, of flight in overdrive.

Pock.

Garrard looked up in surprise. The familiar noise, this time, had been the hour-hand jumping one unit. The minute-hand was already sweeping past the past half-hour. The second-hand was whirling like a propeller and while he watched it, it speeded up to complete invisibility

Pock.

Another hour. The half-hour already passed. *Pock.* Another hour. *Pock.* Another. *Pock. Pock. Pock, Pock, Pock, Pock, pck-pck-pck-pck-pckpckpckpck. . .*

The hands of the calendar swirled toward invisibility as time ran away with Garrard. Yet the ship did not change. It stayed there, rigid, inviolate, invulnerable. When the date tumblers reached a speed at which Garrard could no longer read them, he discovered that once more he could not move and that, although his whole body seemed to be aflutter like that of a hummingbird, nothing coherent was coming to him through his senses. The room was dimming, becoming redder; or no, it was . . .

But he never saw the end of the process, never was allowed to ' look from the pinnacle of macro-time toward which the Haertel overdrive was taking him.

Pseudo-death took him first.

3

That Garrard did not die completely, and within a comparatively short time after the DFC-3 had gone into overdrive, was due to the purest of accidents; but Garrard did not know that. In fact, he knew nothing at all for an indefinite period, sitting rigid and staring, his metabolism slowed down to next to nothing, his mind almost utterly inactive. From time to time, a single wave of low-level metabolic activity passed through him what an electrician might have termed a "maintenance turnover" in response to the urgings of some occult survival urge; but these were of so basic a nature as

to reach his consciousness not at all. This was the pseudo-death.

When the observer actually arrived, however, Garrard woke. He could make very little sense out of what he saw or felt even now; but one fact was clear: the overdrive was off and with it the crazy alterations in time rates and there was strong light coming through one of the ports. The first leg of the trip was over. It had been these two changes in his environment which had restored him to life.

The thing (or things) which had restored him to consciousness, however, was it was what? It made no sense. It was a construction, a rather fragile one, which completely surrounded his hammock. No, it wasn't a construction, but evidently something alive a living being, organized horizontally, that had arranged itself in a circle about him. No, it was a number of beings. Or a combination of all of these things.

How it had gotten into the ship was a mystery, but there it was. Or there they were.

"How do you hear?" the creature said abruptly. Its voice, or their voices, came at equal volume from every point in the circle, but not *from* any particular point in it. Garrard could think of no reason why that should be unusual.

"I" he said. "Or we hear with our ears. Here."

His answer, with its unintentionally long chain of open vowel sounds, rang ridiculously. He wondered why he was speaking such an odd language.

"We-they wooed to pitch you-yours thiswise," the creature said. With a thump, a book from the DFC-3's ample library fell to the deck beside the hammock. "We wooed there and there and there for a many. You are the being-Garrard. We-they are the clinesterton beademung, with all of love."

"With all of love," Garrard echoed. The beademung's use of the language they both were speaking was odd; but again Garrard could find no logical reason why the beademung's usage should be considered wrong.

"Are you-they from Alpha Centauri?" he said hesitantly.

"Yes, we hear the twin radiocoles, that show there beyond the gift-orifices. We-they pitched that the being-Garrard with most adoration these twins and had mind to them, soft and loud alike. How do you hear?"

This time the being-Garrard understood the question. "I hear Earth," he said. "But that is very soft, and does not show."

"Yes," said the beademung. "It is a harmony, not a first, as ours. The All-Devouring listens to lovers there, not on the radiocoles. Let me-mine pitch you-yours so to have mind of the rodalent beademung and other brothers and lovers, along the channel which is fragrant to the being-Garrard."

Garrard found that he understood the speech without difficulty. The thought occurred to him that to understand a language on its own terms without having to put it back into English in one's own mind is an ability that is won only with difficulty and long practice. Yet, instantly his mind said, "But it *is* English," which of course it was. The offer

the clinesterton beademung had just made was enormously hearted, and he in turn was much minded and of love, to his own delighting as well as to the beademungen; that almost went without saying.

There were many matings of ships after that, and the being-Garrard pitched the harmonies of the beademungen, leaving his ship with the many gift orifices in harmonic for the All-Devouring to love, while the beademungen made show of they-theirs.

He tried, also, to tell how he was out of love with the overdrive, which wooed only spaces and times, and made featurelings. The rodalent beademung wooed the overdrive, but it did not pitch he-them.

Then the being-Garrard knew that all the time was devoured, and he must hear Earth again.

"I pitch you-them to fullest love," he told the beademungen, "I shall adore the radioteles of Alpha and Proxima Centauri, 'on Earth as it is in Heaven.' Now the overdrive my-other must woo and win me, and make me adore a featureling much like silence."

"But you will be pitched again," the clinesterton beademung said. "After you have adored Earth. You are much loved by Time, the All-Devouring. We-they shall wait for this othering."

Privately Garrard did not faith as much, but he said, "Yes, we-they will make a new wooing of the beademungen at some other radiant. With all of love."

On this the beademungen made and pitched adorations, and in the midst the overdrive cut in. The ship with the many gift orifices and the being-Garrard him-other saw the twin radioteles sundered away.

Then, once more, came the pseudo-death.

4

When the small candle lit in the endless cavern of Garrard's pseudo-dead mind, the DFC-3 was well inside the orbit of Uranus. Since the sun was still very small and distant, it made no spectacular display through the nearby port, and nothing called him from the post-death sleep for nearly two days.

The computers waited patiently for him. They were no longer immune to his control; he could now tool the ship back to Earth himself if he so desired. But the computers were also designed to take into account the fact that he might be truly dead by the time the DFC-3 got back. After giving him a solid week, during which time he did nothing but sleep, they took over again. Radio signals began to go out, tuned to a special channel.

An hour later, a very weak signal came back. It was only a directional signal, and it made no sound inside the DFC-3 but it was sufficient to put the big ship in motion again.

It was that which woke Garrard. His conscious mind was still glazed over with the icy spume of the pseudo-death; and as far as he could see the interior of the cabin had not changed one whit, except for the book on the deck

The book. The clinesterton beademung had dropped it there. But what under God was a clinesterton beademung?

And what was he, Garrard, crying about? It didn't make sense. He remembered dimly some kind of experience out there by the Centauri twins

the twin radioteles

There was another one of those words. It seemed to have Greek roots, but he knew no Greek and besides, why would Centaurians speak Greek?

He leaned forward and actuated the switch which would roll the shutter off the front port, actually a telescope with a translucent viewing screen. It showed a few stars, and a faint nimbus off on one edge which might be the Sun. At about one o'clock on the screen, was a planet about the size of a pea which had tiny projections, like teacup handles, on each side. The DFC-3 hadn't passed Saturn on its way out; at that time it had been on the other side of the Sun from the route the starship had had to follow. But the planet was certainly difficult to mistake.

Garrard was on his way home and he was still alive. And sane. Or was he still sane? These fantasies about Centaurians which still seemed to have such a profound emotional effect upon him did not argue very well for the stability of his mind.

But they were fading rapidly. When he discovered, clutching at the handiest fragments of the "memories," that the plural of *beademung* was *beademungen*, he stopped taking the problem seriously. Obviously a race of Centaurians who spoke Greek wouldn't also be forming weak German plurals. The whole business had obviously been thrown up by his unconscious.

But what *had* he found by the Centaurus stars?

There was no answer to that question but that incomprehensible garble about love, the All-Devouring, and *beademungen*. Possibly, he had never seen the Centaurus stars at all, but had been lying here, cold as a mackerel, for the entire twenty months.

Or had it been 12,000 years? After the tricks the overdrive had played with time, there was no way to tell what the objective date actually was. Frantically Garrard put the telescope into action. Where was the Earth? After 12,000 years

The Earth was there. Which, he realized swiftly, proved nothing. The Earth had lasted for many millions of years; 12,000 years was nothing to a planet. The Moon was there, too; both were plainly visible, on the far side of the Sun but not too far to pick them out clearly, with the telescope at highest power. Garrard could even see a clear sun-highlight on the Atlantic Ocean, not far east of Greenland; evidently the computers were bringing the DFC-3 in on the Earth from about 23 north of the plane of the ecliptic.

The Moon, too, had not changed. He could even see on its face the huge splash of white, mimicking the sun-highlight on Earth's ocean, which was the magnesium hydroxide landing beacon, which had been dusted over the Mare Vaporum in the earliest days of space flight, with a dark spot on its southern edge which could only be the crater Monilius.

But that again proved nothing. The Moon never changed.

A film of dust laid down by modern man on its face would last for millennia what, after all, existed on the Moon to blow it away? The Mare Vaporum beacon covered more than 4,000 square miles; age would not dim it, nor could man himself undo it either accidentally, or on purpose in anything under a century. When you dust an area that large on a world without atmosphere, it stays dusted.

He checked the stars against his charts. They hadn't moved; why should they have, in only 12,000 years? The pointer stars in the Dipper still pointed to Polaris. Draco, like a fantastic bit of tape, wound between the two Bears, and Cepheus and Cassiopeia, as it always had done. These constellations told him only that it was spring in the northern hemisphere of Earth.

But spring of what year?

Then, suddenly, it occurred to Garrard that he had a method of finding the answer. The Moon causes tides in the Earth, and action and reaction are always equal and opposite. The Moon cannot move things on Earth without itself being affected and that effect shows up in the moon's angular momentum. The Moon's distance from the Earth increases steadily by 0.6 inches every year. At the end of 12,000 years, it should be 600 feet farther away from the Earth, and action and reaction are always equal and op-

Was it possible to measure? Garrard doubted it, but he got out his ephemeris and his dividers anyhow, and took pictures. While he worked, the Earth grew nearer. By the time he had finished his first calculation which was indecisive, because it allowed a margin for error greater than the distances he was trying to check Earth and Moon were close enough in the telescope to permit much more accurate measurements.

Which were, he realized wryly, quite unnecessary. The computer had brought the DFC-3 back, not to an observed sun or planet, but simply to a calculated point. That Earth and Moon would not be near that point when the DFC-3 returned was not an assumption that the computer could make. That the Earth was visible from here was already good and sufficient proof that no more time had elapsed than had been calculated for from the beginning.

This was hardly new to Garrard; it had simply been retired to the back of his mind. Actually he had been doing all this figuring for one reason, and one reason only: because deep in his brain, set to work by himself, there was a mechanism that demanded counting. Long ago, while he was still trying to time the ship's calendar, he had initiated compulsive counting and it appeared that he had been counting ever since. That had been one of the known dangers of deliberately starting such a mental mechanism; and now it was bearing fruit in these perfectly useless astronomical exercises.

The insight was healing. He finished the figures roughly, and that unheard moron deep inside his brain stopped counting at last. It had been pawing its abacus for twenty months now, and Garrard imagined that it was as glad to be retired as he was to feel it go.

His radio squawked, and said anxiously, "DFC-3, DFC-3. Garrard, do you hear me? Are you still alive? Everybody's going wild down here. Garrard, if you hear me, call us!"

It was Haertel's voice. Garrard closed the dividers so convulsively that one of the points nipped into the heel of his hand. "Haertel, I'm here. DFC-3 to the Project. This is Garrard." And then, without knowing quite why, he added: "With all of love."

Haertel, after all the hoopla was over, was more than interested in the time effects. "It certainly enlarges the manifold in which I was working," he said. "But I think we can account for it in the transformation. Perhaps even factor it out, which would eliminate it as far as the pilot is concerned. We'll see, anyhow."

Garrard swirled his highball reflectively. In Haertel's cramped old office, in the Project's administration shack, he felt both strange and as old, as compressed, constricted. He said, "I don't think I'd do that, Adolph. I think it saved my life."

"How?"

"I told you that I seemed to die after a while. Since I got home, I've been reading; and I've discovered that the psychologists take far less stock in the individuality of the human psyche than you and I do. You and I are physical scientists, so we think about the world as being all outside our skins something which is to be observed, but which doesn't alter the essential /. But evidently, that old solipsistic position isn't quite true. Our very personalities, really, depend in large part upon *all* the things in our environment, large and small, that exist outside our skins. If by some means you could cut a human being off from every sense impression that comes to him from outside, he would cease to exist as a personality within two or three minutes. Probably he would die."

"Unquote: Harry Stack Sullivan," Haertel said, dryly. "So?"

"So," Garrard said, "think of what a monotonous environment the inside of a spaceship is. It's perfectly rigid, still, unchanging, lifeless. In ordinary interplanetary flight, in such an environment, even the most hardened spaceman may go off his rocker now and then. You know the typical spaceman's psychosis as well as I do, I suppose. The man's personality goes rigid, just like his surroundings. Usually he recovers as soon as he makes port, and makes contact with a more-or-less normal world again.

"But in the DFC-3, I was cut off from the world around me much more severely. I couldn't look outside the ports I was in overdrive, and there was nothing to see. I couldn't communicate with home, because I was going faster than light. And then I found I couldn't move either, for an enormous long while; and that even the instruments that are in constant change for the usual spaceman wouldn't be in motion for me. Even those were fixed.

"After the time rate began to pick up, I found myself in an even more impossible box. The instruments moved, all right, but then they moved too *fast* for me to read them.

The whole situation was now utterly rigid and, in effect, I died. I froze as solid as the ship around me, and stayed that way as long as the overdrive was on."

"By that showing," Haertel said dryly, "the time effects were hardly your friends."

"But they were, Adolph. Look. Your engines act on subjective time; they keep it varying along continuous curves from far-too-slow to far-too-fast and, I suppose, back down again. Now, this is a *situation of continuous change*. It wasn't marked enough, in the long run, to keep me out of pseudo-death; but it was sufficient to protect me from being obliterated altogether, which I think is what happened to Brown and Cellini. Those men knew that they could shut down the overdrive if they could just get to it, and they killed themselves trying. But I knew that I just had to sit and take it and, by my great good luck, your sine-curve time variation made it possible for me to survive."

"Ah, ah," Haertel said. "A point worth considering though I doubt that it will make interstellar travel very popular!"

He dropped back into silence, his thin mouth pursed. Garrard took a grateful pull at his drink.

At last Haertel said: "Why are you in trouble over these Centaurians? It seems to me that you have done a good job. It was nothing that you were a heroic fool can be brave but I see also that you *thought*, where Brown and Cellini evidently only reacted. Is there some secret about what you found when you reached those two stars?"

Garrard said, "Yes, there is. But I've already told you what it is. When I came out of the pseudo-death, I was just a sort of plastic palimpsest upon which anybody could have made a mark. My own environment, my ordinary Earth environment, was a hell of a long way off. My present surroundings were nearly as rigid as they had ever been. When I met the Centaurians if I did, and I'm not at all sure of that *they* became the most important thing in my world, and my personality changed to accommodate and understand them. That was a change about which I couldn't do a thing.

"Possibly I did understand them. But the man who understood them wasn't the same man you're talking to now, Adolph. Now that I'm back on Earth, I don't understand that man. He even spoke English in a way that's gibberish to me. If I can't understand myself during that period and I can't; I don't even believe that that man was the Garrard I know what hope have I of telling you or the Project about the Centurians? They found me in a controlled environment, and they altered me by entering it. Now that they're gone, nothing comes through; I don't even understand why I think they spoke English!"

"Did they have a name for themselves?"

"Sure," Garrard said. "They were the beadmungen."

"What did they look like?"

"I never saw them."

Haertel leaned forward. "Then . . ."

"I heard them. I think." Garrard shrugged, and tasted his

Scotch again. He was home, and on the whole he was pleased.

But in his malleable mind he heard someone say, *On Earth, as it is in Heaven*; and then, in another voice, which might also have been his own (why had he thought "him-other"?), *It is later than you think*.

"Adolph," he said, "is this all there is to it? Or are we going to go on with it from here? How long will it take to make a better starship, a DFC-4?"

"Many years," Haertel said, smiling kindly. "Don't be anxious, Garrard. You've come back, which is more than the others managed to do, and nobody will ask you to go out again. I really think that it's hardly likely that we'll get another ship built during your lifetime; and even if we do, we'll be slow to launch it. We really have very little information about what kind of playground you found out there."

"I'll go," Garrard said. "I'm not afraid to go back I'd like to go. Now that I know how the DFC-3 behaves, I could take it out again, bring you back proper maps, tapes, photos."

"Do you really think," Haertel said, his face suddenly serious, "that we could let the DFC-3 go out again? Garrard, we're going to take that ship apart practically molecule by molecule; that's preliminary to the building of any DFC-4. And no more can we let you go. I don't mean to be cruel, but has it occurred to you that this desire to go back may be the result of some kind of post-hypnotic suggestion? If so, the more badly you want to go back, the more dangerous to us all you may be. We are going to have to examine you just as thoroughly as we do the ship. If these beademungen wanted you to come back, they must have had a reason and we have to know that reason."

Garrard nodded, but he knew that Haertel could see the slight movement of his eyebrows and the wrinkles forming in his forehead, the contractions of the small muscles which stop the flow of tears only to make grief patent on the rest of the face.

"In short," he said, "*don't move*."

Haertel looked politely puzzled. Garrard, however, could say nothing more. He had returned to humanity's common time, and would never leave it again.

Not even, for all his dimly remembered promise, with all there was left in him of love.