

## **(1/8) The Baby-Eating Aliens**

*This is a story of an impossible outcome, where AI never worked, molecular nanotechnology never worked, biotechnology only sort-of worked; and yet somehow humanity not only survived, but discovered a way to travel Faster-Than-Light: The past's Future.*

*Ships travel through the Alderson starlines, wormholes that appear near stars. The starline network is dense and unpredictable: more than a billion starlines lead away from Sol, but every world explored is so far away as to be outside the range of Earth's telescopes. Most colony worlds are located only a single jump away from Earth, which remains the center of the human universe.*

*From the colony system Huygens, the crew of the Giant Science Vessel Impossible Possible World have set out to investigate a starline that flared up with an unprecedented flux of Alderson force before subsiding. Arriving, the Impossible discovers the sparkling debris of a recent nova - and -*

"ALIENS!"

Every head swung toward the Sensory console. But after that one cryptic outburst, the Lady Sensory didn't even look up from her console: her fingers were frantically twitching commands.

There was a strange moment of silence in the Command Conference while every listener thought the same two thoughts in rapid succession:

*Is she nuts? You can't just say "Aliens!", leave it at that, and expect everyone to believe you. Extraordinary claims require extraordinary evidence -*

And then,

*They came to look at the nova too!*

In a situation like this, it befalls the Conference Chair to speak first.

"What? SHIT!" shouted Akon, who didn't realize until later that his words would be inscribed for all time in the annals of history. Akon swung around and looked frantically at the main display of the Command Conference. "Where are they?"

The Lady Sensory looked up from her console, fingers still twitching. "I - I don't know, I just picked up an incoming high-frequency signal - they're sending us *enormous* amounts of data, petabytes, I had to clear long-term memory and set up an automatic pipe or risk losing the whole -"

"*Found them!*" shouted the Lord Programmer. "I searched through our Greater Archive and turned up a program to look for anomalous energy sources near local starlines. It's from way back from the first days of exploration, but I managed to find an emulation program for -"

"*Just show it!*" Akon took a deep breath, trying to calm himself.

The main display swiftly scanned across fiery space and settled on... a set of windows into fire, the fire of space shattered by the nova, but then shattered again into triangular shards.

It took Akon a moment to realize that he was looking at an icosahedron of perfect mirrors.

*Huh*, thought Akon, *they're lower-tech than us*. Their own ship, the *Impossible*, was absorbing the vast quantities of local radiation and dumping it into their Alderson reactor; the mirror-shielding seemed a distinctly inferior solution. *Unless that's what they want us to think...*

"*Deflectors!*" shouted the Lord Pilot suddenly. "Should I put up deflectors?"

"Deflectors?" said Akon, startled.

The Pilot spoke very rapidly. "Sir, we use a self-sustaining Alderson reaction to power our starline jumps and our absorbing shields. That same reaction could be used to emit a directed beam that would snuff a similar reaction - the aliens are putting out their own Alderson emissions, they could snuff our absorbers at any time, and the nova ashes would roast us instantly - unless I configure a deflector -"

The Ship's Confessor spoke, then. "Have the aliens put up deflectors of their own?"

Akon's mind seemed to be moving very slowly, and yet the essential thoughts felt, somehow, obvious. "Pilot, set up the deflector program but don't activate it until I give the word. Sensory, drop everything else and tell me whether the aliens have put up their own deflectors."

Sensory looked up. Her fingers twitched only briefly through a few short commands. Then, "No," she said.

"Then I think," Akon said, though his spine felt frozen solid, "that we should not be the first to put this interaction on a... combative footing. The aliens have made a gesture of goodwill by leaving themselves vulnerable. We must reciprocate." Surely, no species would advance far enough to colonize space without understanding the logic of the Prisoner's Dilemma...

"You assume too much," said the Ship's Confessor. "They are aliens."

"Not *much* goodwill," said the Pilot. His fingers were twitching, not commands, but almost-commands, subvocal thoughts. "The aliens' Alderson reaction is weaker than ours by an order of magnitude. We could break any shield they could put up. *Unless* they struck first. If they leave their deflectors down, they lose nothing, but they invite us to leave our *own* down -"

"If they were going to strike first," Akon said, "they could have struck before we even knew they were here. But instead they spoke." *Surely, oh surely, they understand the Prisoner's Dilemma.*

"Maybe they hope to gain information and *then* kill us," said the Pilot. "We have technology they want. That enormous message - the only way we could send them an equivalent amount of data would be by dumping our entire Local Archive. They may be *hoping* that we feel the emotional need to, as you put it, *reciprocate* -"

"Hold on," said the Lord Programmer suddenly. "I may have managed to translate their language."

You could have heard a pin dropping from ten lightyears away.

The Lord Programmer smiled, ever so slightly. "You see, that enormous dump of data they sent us - I think that was *their* Local Archive, or equivalent. A sizable part of their Net, anyway. Their text, image, and holo formats are utterly straightforward - either they don't bother compressing anything, or they decompressed it all for us before they sent it. And here's the thing: back in the Dawn era, when there were multiple human languages, there was this notion that people had of statistical language translation. Now, the classic method used a known corpus of human-translated text. But there were successor methods that tried to extend the translation further, by generating semantic skeletons and trying to map the skeletons themselves onto one another. And there are also ways of automatically looking for similarity between images or holos. Believe it or not, there was a program already in the Archive for trying to find points of linkage between an alien corpus and a human corpus, and then working out from there to map semantic skeletons... and it runs quickly, since it's designed to work on older computer systems. So I ran the program, it finished, and it's claiming that it can translate the alien language with 70% confidence. Could be a total bug, of course. But the aliens sent a second message that followed their main data dump - short, looks like text-only. Should I run the translator on that, and put the results on the main display?"

Akon stared at the Lord Programmer, absorbing this, and finally said, "Yes."

"All right," said the Lord Programmer, "here goes machine learning," and his fingers twitched once.

Over the icosahedron of fractured fire, translucent letters appeared:

THIS VESSEL IS THE OPTIMISM OF THE CENTER OF THE VESSEL PERSON

YOU HAVE NOT KICKED US

THEREFORE YOU EAT BABIES

WHAT IS OURS IS YOURS, WHAT IS YOURS IS OURS

"Stop that laughing," Akon said absentmindedly, "it's distracting." The Conference Chair pinched the bridge of his nose. "All right. That doesn't seem completely random. The first line... is them identifying their ship, maybe. Then the second line says that we haven't opened fire on them, or that they won't open fire on us - something like that. The third line, I have absolutely no idea. The fourth... is offering some kind of reciprocal trade -" Akon stopped then. So did the laughter.

"Would you like to send a return message?" said the Lord Programmer.

Everyone looked at him. Then everyone looked at Akon.

Akon thought about that very carefully. Total silence for a lengthy period of time might not be construed as friendly by a race that had just talked at them for petabytes.

"All right," Akon said. He cleared his throat. "We are still trying to understand your language. We do not understand well. We are trying to translate. We may not translate correctly. These words may not say what we want them to say. Please do not be offended. This is the research vessel named quote *Impossible Possible World* unquote. We are pleased to meet you. We will assemble data for transmission to you, but do not have it ready." Akon paused. "Send them that. If you can make your program translate it three different plausible ways, do that too - it may make it clearer that we're working from an automatic program."

The Lord Programmer twitched a few more times, then spoke to the Lady Sensory. "Ready."

"Are you really sure this is a good idea?" said Sensory doubtfully.

Akon sighed. "No. Send the message."

For twenty seconds after, there was silence. Then new words appeared on the display:

WE ARE GLAD TO SEE YOU CANNOT BE DONE

YOU SPEAK LIKE BABY CRUNCH CRUNCH

WITH BIG ANGELIC POWERS

WE WISH TO SUBSCRIBE TO YOUR NEWSLETTER

"All right," Akon said, after a while. It seemed, on the whole, a positive response. "I expect a lot of people are eager to look at the alien corpus. But I also need volunteers to hunt for texts and holo files in our own Archive. Which don't betray the engineering principles behind any technology we've had for less than, say," Akon thought about the mirror shielding and what it implied, "a hundred years. Just showing that it *can* be done... we won't try to avoid that, but don't give away the science..."

A day later, the atmosphere at the Command Conference was considerably more tense.

Bewilderment. Horror. Fear. Numbness. Refusal. And in the distant background, slowly simmering, a dangerous edge of rising righteous fury.

"First of all," Akon said. "First of all. Does anyone have any plausible hypothesis, any reasonable interpretation of what we know, under which the aliens do *not* eat their own children?"

"There is always the possibility of misunderstanding," said the former Lady Psychologist, who was now, suddenly and abruptly, the lead Xenopsychologist of the ship, and therefore of humankind. "But unless the *entire* corpus they sent us is a fiction... no."

The alien holos showed tall crystalline insectile creatures, all flat planes and intersecting angles and prismatic refractions, propelling themselves over a field of sharp rocks: the aliens moved like hopping

on pogo sticks, bouncing off the ground using projecting limbs that sank into their bodies and then rebounded. There was a cold beauty to the aliens' crystal bodies and their twisting rotating motions, like screensavers taking on sentient form.

And the aliens bounded over the sharp rocks toward tiny fleeing figures like delicate spherical snowflakes, and grabbed them with pincers, and put them in their mouths. It was a central theme in holo after holo.

The alien brain was much smaller and denser than a human's. The alien children, though their bodies were tiny, had full-sized brains. They could talk. They protested as they were eaten, in the flickering internal lights that the aliens used to communicate. They screamed as they vanished into the adult aliens' maws.

*Babies*, then, had been a mistranslation: *Preteens* would have been more accurate.

Still, everyone was calling the aliens Babyeaters.

The children were sentient at the age they were consumed. The text portions of the corpus were very clear about that. It was part of the great, the noble, the most holy sacrifice. And the children were loved: this was part of the central truth of life, that parents could overcome their love and engage in the terrible winnowing. A parent might spawn a hundred children, and only one in a hundred could survive - for otherwise they would die later, of starvation...

When the Babyeaters had come into their power as a technological species, they could have chosen to modify themselves - to prevent all births but one.

But this they did not choose to do.

For that terrible winnowing was the central truth of life, after all.

The one now called Xenopsychologist had arrived to the Huygens system with the first colonization vessel. Since then she had spent over one hundred years practicing the profession of psychology, earning the rare title of Lady. (Most people got fed up and switched careers after no more than fifty, whatever their first intentions.) Now, after all that time, she was simply the Xenopsychologist, no longer a Lady of her profession. Being the first and only Xenopsychologist made no difference; the hundred-year rule for true expertise was not a rule that anyone could suspend. If she was the foremost Xenopsychologist of humankind, then also she was the least, the most foolish and the most ignorant. She was only an apprentice Xenopsychologist, no matter that there were no masters anywhere. In theory, her social status should have been too low to be seated at the Conference Table. In theory.

The Xenopsychologist was two hundred and fifty years old. She looked much older, now, as she spoke. "In terms of evolutionary psychology... I think I understand what happened. The ancestors of the Babyeaters were a species that gave birth to hundreds of offspring in a spawning season, like Terrestrial fish; what we call *r*-strategy reproduction. But the ancestral Babyeaters discovered... crystal-tending, a kind of agriculture... long before humans did. They were around as smart as chimpanzees, when they started farming. The adults federated into tribes so they could guard territories and tend crystal. They adapted to pen up their offspring, to keep them around in herds so they could feed them. But they couldn't produce enough crystal for all the children.

"It's a truism in evolutionary biology that group selection can't work among non-relatives. The exception is if there are enforcement mechanisms, punishment for defectors - then there's no individual advantage to cheating, because you get slapped down. That's what happened with the Babyeaters. They didn't restrain their *individual* reproduction because the more children they put in the tribal pen, the more children of theirs were likely to survive. But the total production of offspring from the tribal pen was greater, if the children were winnowed down, and the survivors got more individual resources and attention afterward. That was how their species began to shift toward a *k*-strategy, an individual survival strategy. That was the beginning of their culture.

"And anyone who tried to cheat, to hide away a child, or even go easier on their own children during the winnowing - well, the Babyeaters treated the merciful parents the same way that human tribes treat their traitors.

"They developed psychological adaptations for enforcing that, their first great group norm. And those psychological adaptations, those emotions, were reused over the course of their evolution, as the Babyeaters began to adapt to their more complex societies. *Honor, friendship, the good of our tribe* - the Babyeaters acquired many of the same moral adaptations as humans, but their brains reused the emotional circuitry of infanticide to do it.

"The Babyeater word for *good* means, literally, to eat children."

The Xenopsychologist paused there, taking a sip of water. Pale faces looked back at her from around the table.

The Lady Sensory spoke up. "I don't suppose... we could convince them they were wrong about that?"

The Ship's Confessor was robed and hooded in silver, indicating that he was there formally as a guardian of sanity. His voice was gentle, though, as he spoke: "I don't believe that's how it works."

"Even if you *could* persuade them, it might not be a good idea," said the Xenopsychologist. "If you convinced the Babyeaters to see it our way - that they had committed a wrong of that magnitude - there isn't anything in the universe that could stop them from hunting down and exterminating *themselves*. They don't have a concept of forgiveness; their only notion of why someone might go easy on a transgressor, is to spare an ally, or use them as a puppet, or being too lazy or cowardly to carry out the vengeance. The word for *wrong* is the same symbol as *mercy*, you see." The Xenopsychologist shook her head. "Punishment of non-punishers is very much a way of life, with them. A Manichaeian, dualistic view of reality. They may have literally believed that we ate babies, at first, just because we *didn't* open fire on them."

Akon frowned. "Do you really think so? Wouldn't that make them... well, a bit unimaginative?"

The Ship's Master of Fandom was there; he spoke up. "I've been trying to read Babyeater literature," he said. "It's not easy, what with all the translation difficulties," and he sent a frown at the Lord Programmer, who returned it. "In one sense, we're lucky enough that the Babyeaters have a concept of fiction, let alone science fiction -"

"Lucky?" said the Lord Pilot. "You've got to have an imagination to make it to the stars. The sort of species that wouldn't invent science fiction, probably wouldn't even invent the wheel -"

"But," interrupted the Master, "just as most of their science fiction deals with crystalline entities - the closest they come to postulating human anatomy, in any of the stories I've read, was a sort of giant sentient floppy sponge - so too, nearly all of the aliens their explorers meet, eat their own children. I doubt the authors spent much time questioning the assumption; they didn't want anything so alien that their readers couldn't empathize. The purpose of storytelling is to stimulate the moral instincts, which is why all stories are fundamentally about personal sacrifice and loss - that's their theory of literature. Though you can find stories where the wise, benevolent elder aliens explain how the need to control tribal population is the great selective transition, and how no species can possibly evolve sentience and cooperation without eating babies, and even if they did, they would war among themselves and destroy themselves."

"Hm," said the Xenopsychologist. "The Babyeaters might not be too far wrong - stop staring at me like that, I don't mean it *that* way. I'm just saying, the Babyeater civilization *didn't* have all that many wars. In fact, they didn't have *any* wars at all after they finished adopting the scientific method. It was the great watershed moment in their history - the notion of a *reasonable mistake*, that you didn't have to kill all the adherents of a mistaken hypothesis. Not because you were forgiving them, but because they'd made the mistake by *reasoning on insufficient data*, rather than any *inherent* flaw. Up until then, all wars were wars of total extermination - but afterward, the theory was that if a large group of people could all do something wrong, it was probably a *reasonable mistake*. Their conceptualization of probability theory - of a formally correct way of manipulating uncertainty - was followed by the dawn of their world peace."

"But then -" said the Lady Sensory.

"Of course," added the Xenopsychologist, "anyone who departs from the group norm due to an *actual inherent flaw* still has to be destroyed. And not everyone agreed at first that the scientific method was moral - it does seem to have been highly counterintuitive to them - so their last war was the one where the science-users killed off all the nonscientists. After that, it was world peace."

"Oh," said the Lady Sensory softly.

"Yes," the Xenopsychologist said, "after that, all the Babyeaters banded together as a single super-group that only needed to execute *individual* heretics. They now have a strong cultural taboo against wars *between tribes*."

"Unfortunately," said the Master of Fandom, "that taboo doesn't let us off the hook. You can also find science fiction stories - though they're much rarer - where the Babyeaters and the aliens don't immediately join together into a greater society. Stories of horrible monsters who *don't* eat their children. Monsters who multiply like bacteria, war among themselves like rats, hate all art and beauty, and destroy everything in their pathway. Monsters who have to be exterminated down to the last strand of their DNA - er, last nucleating crystal."

Akon spoke, then. "I accept full responsibility," said the Conference Chair, "for the decision to send the Babyeaters the texts and holos we did. But the fact remains that they have more than enough information about us to infer that we don't eat our children. They may be able to guess how we would see *them*. And they haven't sent anything to us, since we began transmitting to them."

"So the question then is - now what?"

## (2/8) War and/or Peace

The Lord Pilot jumped up, then, his face flushed. "Put up shields. Now. We don't gain anything by leaving them down. This is madness!"

"No," said the Ship's Confessor in professional tones, "not madness."

The Pilot slammed his fists on the table. "*We're all going to die!*"

"They're not as technologically advanced as us," Akon said. "Suppose the Babyeaters do decide that we need to be exterminated. Suppose they open fire. Suppose they kill us. Suppose they follow the starline we opened and find the Huygens system. Then what?"

The Master nodded. "Even with surprise on their side... no. They can't actually wipe out the human species. Not unless they're a lot smarter than they seem to be, and it looks to me like, on average, they're actually a bit dumber than us." The Master glanced at the Xenopsychologist, who waved her hand in a maybe-gesture.

"But if we leave the ship's shields down," Akon said, "we preserve whatever chance we have of a peaceful resolution to this."

"Peace," said the Lady Sensory, in a peculiar flat tone.

Akon looked at her.

"You want peace with the Babyeaters?"

"Of course -" said Akon, then stopped short.

The Lady Sensory looked around the table. "And the Babyeater children? What about them?"

The Master of Fandom spoke, his voice uncertain. "You can't impose human standards on -"

With a blur of motion and a sharp *crack*, the Lady Sensory slapped him.

The Ship's Confessor grabbed her arm. "No."

The Lady Sensory stared at the Ship's Confessor.

"No," the Confessor repeated. "No violence. Only argument. Violence doesn't distinguish truth from falsehood, my Lady."

The Lady Sensory slowly lowered her hand, but not her eyes.

"But..." said the Master. "But, my Lady, if they *want* to be eaten -"

"They don't," said the Xenopsychologist. "Of course they don't. They run from their parents when the terrible winnowing comes. The Babyeater children aren't *emotionally* mature - I mean they don't have

their adult emotional state yet. Evolution would take care of anyone who wanted to get eaten. And they're still learning, still making mistakes, so they don't yet have the instinct to exterminate violators of the group code. It's a simpler time for them. They play, they explore, they try out new ideas. They're..." and the Xenopsychologist stopped. "Damn," she said, and turned her head away from the table, covering her face with her hands. "Excuse me." Her voice was unsteady. "They're a lot like human children, really."

"And if they *were* human children," said the Lady Sensory into the silence, "do you think that, just because the Babyeater species wanted to eat human children, that would make it right for them to do it?"

"No," said the Lord Pilot.

"Then what difference does it make?" said the Lady Sensory.

"No difference at all," said the Lord Pilot.

Akon looked back and forth between the two of them, and saw what was coming, and somehow couldn't speak.

"We have to save them," said the Lady Sensory. "We have to stop this. No matter what it takes. We can't let this go on."

Couldn't say that one word -

The Lord Pilot nodded. "Destroy their ship. Preserve *our* advantage of surprise. Go back, tell the world, create an overwhelming human army... and pour into the Babyeater starline network. And rescue the children."

"No," Akon said.

*No?*

"I know," said the Lord Pilot. "A lot of Babyeaters will die at first, but they're killing ten times more children than their whole adult population, every year -"

"And then what?" said the Master of Fandom. "What happens when the children grow up?"

The Lord Pilot fell silent.

The Master of Fandom completed the question. "Are you going to wipe out their whole race, because their existence is too horrible to be allowed to go on? I read their stories, and I didn't understand them, but -" The Master of Fandom swallowed. "They're not... *evil*. Don't you understand? They're *not*. Are you going to punish me, because I don't want to punish them?"

"We could..." said the Lord Pilot. "Um. We could modify their genes so that they only gave birth to a single child at a time."

"No," said the Xenopsychologist. "They would grow up loathing themselves for being unable to eat babies. Horrors in their own eyes. It would be kinder just to kill them."

"Stop," said Akon. His voice wasn't strong, wasn't loud, but everyone in the room looked at him. "Stop. We are not going to fire on their ship."

"Why not?" said the Lord Pilot. "They -"

"They haven't raised shields," said Akon.

"Because they know it won't make a difference!" shouted the Pilot.

"*They didn't fire on us!*" shouted Akon. Then he stopped, lowered his voice. "They didn't fire on us. Even after they knew that we didn't eat babies. I am not going to fire on them. I refuse to do it."

"You think they're *innocent*?" demanded the Lady Sensory. "What if it was human children that were being eaten?"

Akon stared out a viewscreen, showing in subdued fires a computer-generated graphic of the nova debris. He just felt exhausted, now. "I never understood the Prisoner's Dilemma until this day. Do you cooperate when you *really do* want the highest payoff? When it doesn't even seem *fair* for both of you to cooperate? When it seems *right* to defect even if the other player doesn't? That's the payoff matrix of the *true* Prisoner's Dilemma. But all the rest of the logic - everything about what happens if you both think that way, and both defect - is the same. Do we want to live in a universe of cooperation or defection?"

"But -" said the Lord Pilot.

"They *know*," Akon said, "that they can't wipe us out. And they can guess what we could do to them. Their choice *isn't* to fire on us and try to invade afterward! Their choice is to fire on us and run from this star system, hoping that no other ships follow. It's their whole species at stake, against just this one ship. And they *still haven't fired*."

"They won't fire on us," said the Xenopsychologist, "until they decide that we've defected from the norm. It would go against their sense of... honor, I could call it, but it's much stronger than the human version -"

"No," Akon said. "Not *that* much stronger." He looked around, in the silence. "The Babyeater society has been at peace for centuries. So too with human society. Do you want to fire the opening shot that brings war back into the universe? Send us back to the darkness-before-dawn that we only know from reading history books, because the holos are too horrible to watch? Are you really going to press the button, knowing that?"

The Lord Pilot took a deep breath. "I will. You will not remain commander of the *Impossible*, my lord, if the greater conference votes no confidence against you. And they *will*, my lord, for the sake of the children."

"What," said the Master, "are you going to *do* with the children?"

"We, um, have to do something," said the Ship's Engineer, speaking up for the first time. "I've been, um, looking into what Babyeater science knows about their brain mechanisms. It's really quite fascinating, they mix electrical and mechanical interactions, not the same way our own brain pumps ions, but -"

"Get to the point," said Akon. "*Immediately.*"

"The children don't die right away," said the Engineer. "The brain is this nugget of hard crystal, that's really resistant to, um, the digestive mechanisms, much more so than the rest of the body. So the child's brain is in, um, probably quite a lot of pain, since the whole body has been amputated, and in a state of sensory deprivation, and then the processing slowly gets degraded, and I think the whole process gets completed about a month after -"

The Lady Sensory threw up. A few seconds later, so did the Xenopsychologist and the Master.

"If human society permits this to go on," said the Lord Pilot, his voice very soft, "I will resign from human society, and I will have friends, and we will visit the Babyeater starline network with an army. You'll have to kill me to stop me."

"And me," said the Lady Sensory through tears.

Akon rose from his chair, and leaned forward; a dominating move that he had learned in classrooms, very long ago when he was first studying to be an Administrator. But most in humanity's promotion-conscious society would not risk direct defiance of an Administrator. In a hundred years he'd never had his authority really tested, until now... "I will not permit you to fire on the alien ship. Humanity will not be first to defect in the Prisoner's Dilemma."

The Lord Pilot stood up, and Akon realized, with a sudden jolt, that the Pilot was four inches taller; the thought had never occurred to him before. The Pilot didn't lean forward, not knowing the trick, or not caring. The Pilot's eyes were narrow, surrounding facial muscles tensed and tight.

"*Get out of my way,*" said the Lord Pilot.

Akon opened his mouth, but no words came out.

"It is time," said the Lord Pilot, "to see this calamity to its end." Spoken in Archaic English: the words uttered by Thomas Clarkson in 1785, at the beginning of the end of slavery. "I have set my will against this disaster; I will break it, or it will break me." Ira Howard in 2014. "I will not share my universe with this shadow," and that was the Lord Pilot, in an anger hotter than the nova's ashes. "Help me if you will, or step aside if you lack decisiveness; but do not make yourself my obstacle, or *I will burn you down, and any that stand with you* -"

"*HOLD.*"

Every head in the room jerked toward the source of the voice. Akon had been an Administrator for a hundred years, and a Lord Administrator for twenty. He had studied all the classic texts, and watched holos of famous crisis situations; nearly all the accumulated knowledge of the Administrative Field was at his beck and call; and he'd never dreamed that a word could be spoken with such absolute force.

The Ship's Confessor lowered his voice. "My Lord Pilot. I will not permit you to declare your crusade, when you have not said what you are crusading *for*. It is not enough to say that you do not like the way things are. You must say how you will change them, and to what. You must think all the way to your end. Will you wipe out the Babyeater race entirely? Keep their remnants under human rule forever, in despair under our law? You have not even faced your hard choices, only congratulated yourself on demanding that something be done. I judge that a violation of sanity, my lord."

The Lord Pilot stood rigid. "What -" his voice broke. "What do *you* suggest we do?"

"Sit down," said the Ship's Confessor, "keep thinking. My Lord Pilot, my Lady Sensory, you are premature. It is too early for humanity to divide over this issue, *when we have known about it for less than twenty-four hours*. Some rules do not change, whether it is money at stake, or the fate of an intelligent species. We should only, at this stage, be discussing the issue in all its aspects, as thoroughly as possible; we should not even be placing solutions on the table, as yet, to polarize us into camps. You *know* that, my lords, my ladies, and it does not change."

"And *after* that?" said the Master of Fandom suddenly. "*Then* it's okay to split humanity? You wouldn't object?"

The featureless blur concealed within the Confessor's Hood turned to face the Master, and spoke; and those present thought they heard a grim smile, in that voice. "Oh," said the Confessor, "*that* would be interfering in politics. I am charged with guarding sanity, not morality. If you want to stay together, do not split. If you want peace, do not start wars. If you want to avoid genocide, do not wipe out an alien species. But if these are not your *highest* values, then you may well end up sacrificing them. What you are willing to trade *off*, may end up traded *away* - *be you warned!* But if that is acceptable to you, then so be it. The Order of Silent Confessors exists in the hope that, so long as humanity is sane, it can make choices in accordance with its true desires. Thus there is our Order dedicated *only* to that, and sworn not to interfere in politics. So you will spend more time discussing this scenario, my lords, my ladies, and only then generate solutions. And then... you will decide."

"Excuse me," said the Lady Sensory. The Lord Pilot made to speak, and Sensory raised her voice. "*Excuse me*, my lords. The alien ship has just sent us a new transmission. Two megabytes of text."

"Translate and publish," ordered Akon.

They all glanced down and aside, waiting for the file to come up.

It began:

THE UTTERMOST ABYSS OF JUSTIFICATION  
A HYMN OF LOGIC  
PURE LIKE STONES AND SACRIFICE  
FOR STRUGGLES OF THE YOUNG SLIDING DOWN YOUR THROAT-

Akon looked away, wincing. He hadn't tried to read much of the alien corpus, and hadn't gotten the knack of reading the "translations" by that damned program.

"Would someone," Akon said, "please tell me - tell the conference - what this says?"

There was a long, stretched moment of silence.

Then the Xenopsychologist made a muffled noise that could have been a bark of incredulity, or just a sad laugh. "Stars beyond," said the Xenopsychologist, "they're trying to persuade us to eat our own children."

"Using," said the Lord Programmer, "what they assert to be arguments from universal principles, rather than appeals to mere instincts that might differ from star to star."

"Such as what, exactly?" said the Ship's Confessor.

Akon gave the Confessor an odd look, then quickly glanced away, lest the Confessor catch him at it. No, the Confessor couldn't be carefully maintaining an open mind about *that*. It was just curiosity over what particular failures of reasoning the aliens might exhibit.

"Let me search," said the Lord Programmer. He was silent for a time. "Ah, here's an example. They point out that by producing many offspring, and winnowing among them, they apply greater selection pressures to their children than we do. So if we started producing hundreds of babies per couple and then eating almost all of them - I do emphasize that this is their suggestion, not mine - evolution would proceed faster for us, and we would survive longer in the universe. Evolution and survival are universals, so the argument should convince anyone." He gave a sad chuckle. "Anyone here feel convinced?"

"Out of curiosity," said the Lord Pilot, "have they ever tried to produce even more babies - say, thousands instead of hundreds - so they could speed up their evolution even more?"

"It ought to be easily within their current capabilities of bioengineering," said the Xenopsychologist, "and yet they haven't done it. Still, I don't think we should make the suggestion.""

"Agreed," said Akon.

"But humanity uses gamete selection," said the Lady Sensory. "We *aren't* evolving any slower. If anything, choosing among millions of sperm and hundreds of eggs gives us *much* stronger selection pressures."

The Xenopsychologist furrowed her brow. "I'm not sure we sent them that information in so many words... or they may have just not gotten that far into what we sent them..."

"Um, it wouldn't be trivial for them to understand," said the Ship's Engineer. "They don't have separate DNA and proteins, just crystal patterns tiling themselves. The two parents intertwine and stay that way for, um, days, nucleating portions of supercooled liquid from their own bodies to construct the babies. The whole, um, baby, is constructed together by both parents. They don't *have* separate gametes they could select on."

"But," said the Lady Sensory, "couldn't we maybe convince them, to work out some equivalent of gamete selection and try that instead -"

"My lady," said the Xenopsychologist. Her voice, now, was somewhat exasperated. "They aren't

*really* doing this for the sake of evolution. They were eating babies millions of years before they knew what evolution *was*."

"Huh, this is interesting," said the Lord Programmer. "There's another section here where they construct their arguments using appeals to historical human authorities."

Akon raised his eyebrows. "And who, exactly, do they quote in support?"

"Hold on," said the Lord Programmer. "This has been run through the translator twice, English to Babyeater to English, so I need to write a program to retrieve the original text..." He was silent a few moments. "I see. The argument starts by pointing out how eating your children is proof of sacrifice and loyalty to the tribe, then they quote human authorities on the virtue of sacrifice and loyalty. And ancient environmentalist arguments about population control, plus... oh, dear. I don't think they've realized that Adolf Hitler is a bad guy."

"They wouldn't," said the Xenopsychologist. "Humans put Hitler in charge of a country, so we must have considered him a preeminent legalist of his age. And it wouldn't occur to the Babyeaters that Adolf Hitler might be regarded by humans as a bad guy *just* because he turned segments of his society into lampshades - they have a *custom* against that nowadays, but they don't really see it as *evil*. If Hitler thought that gays had defected against the norm, and tried to exterminate them, that looks to a Babyeater like an honest mistake -" The Xenopsychologist looked around the table. "All right, I'll stop there. But the Babyeaters don't look back on their history and see obvious villains in positions of power - certainly not after the dawn of science. Any politician who got to the point of being labeled "bad" would be killed and eaten. The Babyeaters don't seem to have had humanity's coordination problems. Or they're just more rational voters. Take your pick."

Akon was resting his head in his hands. "You know," Akon said, "I *thought* about composing a message like this to the Babyeaters. It was a stupid thought, but I kept turning it over in my mind. Trying to think about how I might persuade them that eating babies was... *not a good thing*."

The Xenopsychologist grimaced. "The aliens seem to be even more given to rationalization than we are - which is maybe why their society isn't so rigid as to actually fall apart - but I don't think you could twist them far enough around to believe that eating babies was not a babyeating thing."

"And by the same token," Akon said, "I don't think they're particularly likely to persuade us that eating babies is good." He sighed. "Should we just mark the message as spam?"

"*One* of us should read it, at least," said the Ship's Confessor. "They composed their argument honestly and in all good will. Humanity also has epistemic standards of honor to uphold."

"Yes," said the Master. "I don't quite understand the Babyeater standards of literature, my lord, but I can tell that this text conforms to their style of... not exactly poetry, but... they tried to make it aesthetic as well as persuasive." The Master's eyes flickered, back and forth. "I think they even made some parts constant in the total number of light pulses per argumentative unit, like human prosody, hoping that our translator would turn it into a human poem. And... as near as I can judge such things, this took a *lot* of effort. I wouldn't be surprised to find that everyone on that ship was staying up all night working on it."

"Babyeaters don't sleep," said the Engineer *sotto voce*.

"Anyway," said the Master. "If we don't fire on the alien ship - I mean, if this work is ever carried back to the Babyeater civilization - I suspect the aliens will consider this one of their great historical works of literature, like *Hamlet* or *Fate/stay night* -"

The Lady Sensory cleared her throat. She was pale, and trembling.

With a sudden black premonition of doom like a training session in Unrestrained Pessimism, Akon guessed what she would say.

The Lady Sensory said, in an unsteady voice, "My lords, a third ship has jumped into this system. Not Babyeater, not human."

### **(3/8) The Super Happy People**

The holo showed a triangle marked with three glowing dots, the human ship and the Babyeater ship and the newcomers. Then the holo zoomed in, to show -

- the most grotesque spaceship that Akon had ever seen, like a blob festooned with tentacles festooned with acne festooned with small hairs. Slowly, the tentacles of the ship waved, as if in a gentle breeze; and the acne on the tentacles pulsated, as if preparing to burst. It was a fractal of ugliness, disgusting at every level of self-similarity.

"Do the aliens have deflectors up?" said Akon.

"My lord," said Lady Sensory, "they don't have *any* shields raised. The nova ashes' radiation doesn't seem to bother them. Whatever material their ship is made from, it's just taking the beating."

A silence fell around the table.

"All right," said the Lord Programmer, "*that's* impressive."

The Lady Sensory jerked, like someone had just slapped her. "We - we just got a signal from them in human-standard format, content encoding marked as Modern English text, followed by a holo -"

"*What?*" said Akon. "We haven't transmitted *anything* to them, how could they *possibly* -"

"Um," said the Ship's Engineer. "What if these aliens really *do* have, um, 'big angelic powers'?"

"No," said the Ship's Confessor. His hood tilted slightly, as if in wry humor. "It is only history repeating itself."

"History repeating itself?" said the Master of Fandom. "You mean that the ship is from an alternate Everett branch of Earth, or that they somehow *independently* developed ship-to-ship communication protocols *exactly* similar to our -"

"No, you dolt," said the Lord Programmer, "he means that the Babyeaters sent the new aliens a massive data dump, just like they sent *us*. Only this time, the Babyeater data dump included all the data that *we* sent the Babyeaters. Then the new aliens ran an automatic translation program, like the one *we* used."

"You gave it away," said the Confessor. There was a slight laugh in his voice. "You should have let them figure it out on their own. One so rarely encounters the *apparently* supernatural, these days."

Akon shook his head, "Confessor, we don't have time for - never mind. Sensory, show the text message."

The Lady Sensory twitched a finger and -

HOORAY!

WE ARE SO GLAD TO MEET YOU!

THIS IS THE SHIP "PLAY GAMES FOR LOTS OF FUN"

(OPERATED BY CHARGED PARTICLE FINANCIAL FIRMS)

WE LOVE YOU AND WE WANT YOU TO BE SUPER HAPPY.

WOULD YOU LIKE TO HAVE SEX?

Slowly, elaborately, Akon's head dropped to the table with a dull thud. "Why couldn't we have been alone in the universe?"

"No, wait," said the Xenopsychologist, "*this* makes sense."

The Master of Fandom nodded. "Seems quite straightforward."

"Do enlighten," came a muffled tone from where Akon's head rested on the table.

The Xenopsychologist shrugged. "Evolutionarily speaking, reproduction is probably the single best guess for an activity that an evolved intelligence would find pleasurable. When you look at it from that perspective, my lords, my lady, their message makes perfect sense - it's a universal friendly greeting, like the Pioneer engraving."

Akon didn't raise his head. "I wonder what *these* aliens do," he said through his shielding arms, "molest kittens?"

"My lord..." said the Ship's Confessor. Gentle the tone, but the meaning was very clear.

Akon sighed and straightened up. "You said their message included a holo, right? Let's see it."

The main screen turned on.

There was a moment of silence, and then a strange liquid sound as, in unison, everyone around the

table gasped in shock, even the Ship's Confessor.

For a time after that, no one spoke. They were just... watching.

"Wow," said the Lady Sensory finally. "That's actually... kind of... hot."

Akon tore his eyes away from the writhing human female form, the writhing human male form, and the writhing alien tentacles. "But..." Akon said. "But why is she pregnant?"

"A better question," said the Lord Programmer, "would be, why are the two of them reciting multiplication tables?" He glanced around. "What, none of you can read lips?"

"Um..." said the Xenopsychologist. "Okay, I've got to admit, I can't even *begin* to imagine why -"

Then there was a uniform "Ewww..." from around the room.

"Oh, dear," said the Xenopsychologist. "Oh, dear, I don't think they understood that part at *all*."

Akon made a cutting gesture, and the holo switched off.

"Someone should view the rest of it," said the Ship's Confessor. "It might contain important information."

Akon flipped a hand. "I don't think we'll run short of volunteers to watch disgusting alien pornography. Just post it to the ship's 4chan, and check after a few hours to see if anything was modded up to +5 Insightful."

"These aliens," said the Master of Fandom slowly, "composed that pornography within... seconds, it must have been. *We* couldn't have done that automatically, could we?"

The Lord Programmer frowned. "No. I don't, um, think so. From a corpus of alien pornography, *automatically* generate a holo they would find interesting? Um. It's not a problem that I think anyone's tried to solve yet, and *they* sure didn't get it perfect the first time, but... no."

"How large an angelic power does that imply?"

The Lord Programmer traded glances with the Master. "Big," the Lord Programmer said finally. "Maybe even epic."

"Or they think on a much faster timescale," said the Confessor softly. "There is no law of the universe that their neurons must run at 100Hz."

"My lords," said the Lady Sensory, "we're getting another message; holo with sound, this time. It's marked as a real-time communication, my lords."

Akon swallowed, and his fingers automatically straightened the hood of his formal sweater. Would the aliens be able to tell if his clothes were sloppy? He was suddenly very aware that he hadn't checked his lipstick in three hours. But it wouldn't do to keep the visitors waiting... "All right. Open a channel to

them, transmitting only myself."

The holo that appeared did nothing to assuage his insecurities. The man that appeared was perfectly dressed, utterly perfectly dressed, in business casual more intimidating than any formality: crushing superiority without the appearance of effort. The face was the same way, overwhelmingly handsome without the excuse of makeup; the fashionable slit vest exposed pectoral muscles that seemed optimally sculpted without the bulk that comes of exercise -

"*Superstimulus!*" exclaimed the Ship's Confessor, a sharp warning.

Akon blinked, shrugging off the fog. Of course the aliens couldn't possibly *really* look like that. A holo, only an overoptimized holo. That was a lesson everyone (every human?) learned before puberty, not to let reality seem diminished by fiction. As the proverb went, *It's bad enough comparing yourself to Isaac Newton without comparing yourself to Kimball Kinnison.*

"Greetings in the name of humanity," said Akon. "I am Lord Anamaferus Akon, Conference Chair of the Giant Science Vessel *Impossible Possible World*. We -" *come in peace* didn't seem appropriate with a Babyeater war under discussion, and many other polite pleasantries, like *pleased to meet you*, suddenly seemed too much like promises and lies, "- didn't quite understand your last message."

"Our apologies," said the perfect figure on screen. "You may call me Big Fucking Edward; as for our species..." The figure tilted a head in thought. "This translation program is not fully stable; even if I said our proper species-name, who knows how it would come out. I would not wish my kind to forever bear an unaesthetic nickname on account of a translation error."

Akon nodded. "I understand, Big Fucking Edward."

"Your true language is a format inconceivable to us," said the perfect holo. "But we do apologize for any *untranslatable* I you may have experienced on account of our welcome transmission; it was automatically generated, before any of us had a chance to apprehend your sexuality. We do apologize, I say; but who would ever have thought that a species would evolve to find reproduction a *painful* experience? For us, childbirth is the greatest pleasure we know; to be prolonged, not hurried."

"Oh," said the Lady Sensory in a tone of sudden enlightenment, "*that's* why the tentacles were pushing the baby back into -"

Out of sight of the visual frame, Akon gestured with his hand for Sensory to shut up. Akon leaned forward. "The visual you're currently sending us is, of course, not real. What do you actually look like? - if the request does not offend."

The perfect false man furrowed a brow, puzzled. "I don't understand. You would not be able to apprehend any communicative cues."

"I would still like to see," Akon said. "I am not sure how to explain it, except that - truth matters to us."

The too-beautiful man vanished, and in his place -

Mad brilliant colors, insane hues that for a moment defeated his vision. Then his mind saw shapes, but

not meaning. In utter silence, huge blobs writhed around supporting bars. Extrusions protruded fluidly and interpenetrated -

Writhing, twisting, shuddering, pulsating -

And then the false man reappeared.

Akon fought to keep his face from showing distress, but a prickling of sweat appeared on his forehead. There'd been something *jarring* about the blobs, even the stable background behind them. Like looking at an optical illusion designed by sadists.

And - *those* were the aliens, or so they claimed -

"I have a question," said the false man. "I apologize if it causes any distress, but I must know if what our scientists say is correct. Has your kind really evolved separate information-processing mechanisms for deoxyribose nucleic acid versus electrochemical transmission of synaptic spikes?"

Akon blinked. Out of the corner of his eye, he saw figures trading cautious glances around the table. Akon wasn't sure where this question was leading, but, given that the aliens had already understood enough to ask, it probably wasn't safe to lie...

"I don't really understand the question's purpose," Akon said. "Our genes are made of deoxyribose nucleic acid. Our brains are made of neurons that transmit impulses through electrical and chemical -"

The fake man's head collapsed to his hands, and he began to bawl like a baby.

Akon's hand signed *Help!* out of the frame. But the Xenopsychologist shrugged cluelessly.

This was not going well.

The fake man suddenly unfolded his head from his hands. His cheeks were depicted as streaked with tears, but the face itself had stopped crying. "To wait so long," the voice said in a tone of absolute tragedy. "To wait so long, and come so far, only to discover that nowhere among the stars is any trace of love."

"Love?" Akon repeated. "Caring for someone else? Wanting to protect them, to be with them? If that translated correctly, then 'love' is a very important thing to us."

"But!" cried the figure in agony, at a volume that made Akon jump. "But when you have sex, you do not *untranslatable 2!* A fake, a fake, these are only imitation words -"

"What is 'untranslatable 2?'" Akon said; and then, as the figure once again collapsed in inconsolable weeping, wished he hadn't.

"They asked if our neurons and DNA were separate," said the Ship's Engineer. "So maybe they have only one system. Um... in retrospect, that actually seems like the obvious way for evolution to do it. If you're going to have one kind of information storage for genes, why have an entirely different system for brains? So -"

"They share each other's thoughts when they have sex," the Master of Fandom completed. "Now *there's* an old dream. And they would develop emotions around that, whole patterns of feeling we don't have ourselves... Huh. I guess we do lack their analogue of love."

"Probably," said the Xenopsychologist quietly, "sex was their only way of speaking to each other from the beginning. From before the dawn of their intelligence. It really *does* make a lot of sense, evolutionarily. If you're injecting packets of information *anyway* -"

"Wait a minute," said the Lady Sensory, "then how are they talking to *us*?"

"Of course," said the Lord Programmer in a tone of sudden enlightenment. "Humanity has always used new communications technologies for pornography. 'The Internet is for porn' - but with *them*, it must have been the other way around."

Akon blinked. His mind suddenly pictured the blobs, and the tentacles connecting them to each other -

*Somewhere on that ship is a blob making love to an avatar that's supposed to represent me. Maybe a whole Command Orgy.*

*I've just been cyber-raped. No, I'm being cyber-raped right now.*

And the aliens had crossed who knew how much space, searching for who knew how long, yearning to speak / make love to other minds - only to find -

The fake man suddenly jerked upright and screamed at a volume that whited-out the speakers in the Command Conference. Everyone jumped; the Master of Fandom let out a small shriek.

*What did I do what did I do what did I do -*

And then the holo vanished.

Akon gasped for breath and slumped over in his chair. Adrenaline was still running riot through his system, but he felt utterly exhausted. He wanted to release his shape and melt into a puddle, a blob like the *wrong shapes* he'd seen on screen - no, *not* like that.

"My lord," the Ship's Confessor said softly. He was now standing alongside, a gentle hand on Akon's shoulder. "My lord, are you all right?"

"Not really," Akon said. His voice, he was proud to note, was only slightly wobbly. "It's too hard, speaking to aliens. They don't think like you do, and you don't know what you're doing wrong."

"I wonder," the Master of Fandom said with artificial lightness, "if they'll call it 'xenofatigue' and forbid anyone to talk to an alien for longer than five minutes."

Akon just nodded.

"We're getting another signal," the Lady Sensory said hesitantly. "Holo with sound, another real-time communication."

"Akon, you don't have to -" said the Master of Fandom.

Akon jerked himself upright, straightened his clothes. "I *do* have to," he said. "They're aliens, there's no knowing what a delay might... Just put it through."

The first thing the holo showed, in elegant Modern English script, was the message:

*The Lady 3rd Kiritsugu*  
*temporary co-chair of the Gameplayer*  
*Language Translator version 3*  
*Cultural Translator version 2*

The screen hovered just long enough to be read, then dissipated -

Revealing a pale white lady.

The translator's depiction of the Lady 3rd Kiritsugu was all white and black and grey; not the colorlessness of a greyscale image, but a colored image of a world with little color in it. Skin the color of the palest human skin that could still be called attractive; not snow white, but pale. White hair; blouse and bracelets and long dress all in coordinated shades of grey. That woman could have been called pretty, but there was none of the overstimulating beauty of the fake man who had been shown before.

Her face was styled in the emotion that humans named "serene".

"I and my sisters have now taken command of this vessel," said the pale Lady.

Akon blinked. *A mutiny aboard their ship?*

And it was back to the alien incomprehensibility, the knife-edged decisions and unpredictable reactions and the deadly fear of screwing up.

"I am sorry if my words offend," Akon said carefully, "but there is something I wish to know."

The Lady 3rd made a slicing gesture with one hand. "You *cannot* offend me." Her face showed mild insult at the suggestion.

"What has happened aboard your ship, just now?"

The Lady 3rd replied, "The crew are disabled by emotional distress. They have exceeded the bounds of their obligations, and are returning to the ship's Pleasuring Center for reward. In such a situation I and my two sisters, the *kiritsugu* of this vessel, assume command."

*Did I do that?* "I did not intend for my words to cause you psychological harm."

"You are not responsible," the Lady 3rd said. "It was the other ones."

"The Babyeaters?" Akon said without thinking.

"Babyeaters," the Lady 3rd repeated. "If that is the name you have given to the third alien species present at this star system, then yes. The crew, apprehending the nature of the Babyeaters' existence, was incapacitated by their share of the children's suffering."

"I see," Akon said. He felt an odd twitch of shame for humanity, that his own kind could learn of the Babyeaters, and continue functioning with only tears.

The Lady 3rd's gaze grew sharp. "What are your intentions regarding the Babyeaters?"

"We haven't decided," Akon said. "We were just discussing it when you arrived, actually."

"What is your current most preferred alternative?" the Lady 3rd instantly fired back.

Akon helplessly shrugged, palms out. "We were just starting the discussion. All the alternatives suggested seemed unacceptable."

"Which seemed least unacceptable? What is your current best candidate?"

Akon shook his head. "We haven't designated any."

The Lady 3rd's face grew stern, with a hint of puzzlement. "You are withholding the information. Why? Do you think it will cast you in an unfavorable light? Then I must take that expectation into account. Further, you must expect me to take that expectation into account, and so you imply that you expect me to underestimate its severity, even after taking this line of reasoning into account."

"Excuse me," the Ship's Confessor said. His tone was mild, but with a hint of urgency. "I believe I should enter this conversation *right now*."

Akon's hand signed agreement to the Lady Sensory.

At once the Lady 3rd's eyes shifted to where the Confessor stood beside Akon.

"Human beings," said the Ship's Confessor, "cannot designate a 'current best candidate' without psychological consequences. Human rationalists learn to discuss an issue as thoroughly as possible before suggesting *any* solutions. For humans, solutions are *sticky* in a way that would require detailed cognitive science to explain. We would not be able to search freely through the solution space, but would be helplessly attracted toward the 'current best' point, once we named it. Also, any endorsement whatever of a solution that has negative moral features, will cause a human to feel shame - and 'best candidate' would feel like an endorsement. To avoid feeling that shame, humans must avoid saying which of two bad alternatives is better than the other."

*Ouch*, thought Akon, *I never realized how embarrassing that sounds until I heard it explained to an alien.*

Apparently the alien was having similar thoughts. "So you cannot even tell me which of several alternatives currently seems best, without your minds breaking down? That sounds quite implausible," the Lady 3rd said doubtfully, "for a species capable of building a spaceship."

There was a hint of laughter in the Confessor's voice. "We try to overcome our biases."

The Lady 3rd's gaze grew more intense. "Are you the true decisionmaker of this vessel?"

"I am not," the Confessor said flatly. "I am a Confessor - a human master rationalist; we are sworn to refrain from leadership."

"This meeting will determine the future of all three species," said the Lady 3rd. "If you have superior competence, you should assume control."

Akon's brows furrowed slightly. Somehow he'd never thought about it in those terms.

The Confessor shook his head. "There are reasons beyond my profession why I must not lead. I am too old."

*Too old?*

Akon put the thought on hold, and looked back at the Lady 3rd. She had said that all the crew were incapacitated, except her and her two sisters who took charge. And she had asked the Confessor if he held true command.

"Are you," Akon asked, "the equivalent of a Confessor for your own kind?"

"Almost certainly not," replied the Lady 3rd, and -

"Almost certainly not," the Confessor said, almost in the same breath.

There was an eerie kind of unison about it.

"I am *kiritsugu*," said the Lady 3rd. "In the early days of my species there were those who refrained from happiness in order to achieve perfect skill in helping others, using *untranslatable 3* to suppress their emotions and acting only on their abstract knowledge of goals. These were forcibly returned to normality by massive *untranslatable 4*. But I descend from their thought-lineage and in emergency invoke the shadow of their *untranslatable 5*."

"I am a Confessor," said the Ship's Confessor, "the descendant of those in humanity's past who most highly valued truth, who sought systematic methods for finding truth. But Bayes's Theorem will not be different from one place to another; the laws in their purely mathematical form will be the same, just as any sufficiently advanced species will discover the same periodic table of elements."

"And being universals," said the Lady 3rd, "they bear no distinguishing evidence of their origin. So you should understand, Lord Akon, that a *kiritsugu's* purpose is not like that of a Confessor, even if we exploit the same laws."

"But we *are* similar enough to each other," the Confessor concluded, "to see each other as *distorted* mirror images. Heretics, you might say. She is the ultimate sin forbidden to a Confessor - the exercise of command."

"As you are flawed on my own terms," the Lady 3rd concluded, "one who refuses to help."

Everyone else at the Conference table was staring at the alien holo, and at the Confessor, in something approaching outright horror.

The Lady 3rd shifted her gaze back to Akon. Though it was only a movement of the eyes, there was something of a definite force about the motion, as if the translator was indicating that it stood for something much stronger. Her voice was given a demanding, compelling quality: "What alternatives *did* your kind generate for dealing with the Babyeaters? Enumerate them to me."

*Wipe out their species, keep them in prison forever on suicide watch, ignore them and let the children suffer.*

Akon hesitated. An odd premonition of warning prickled at him. *Why does she need this information?*

"If you do not give me the information," the Lady 3rd said, "I will take into account the fact that you do not wish me to know it."

The proverb went through his mind, *The most important part of any secret is the fact that the secret exists.*

"All right," Akon said. "We found unacceptable the alternative of leaving the Babyeaters be. We found unacceptable the alternative of exterminating them. We wish to respect their choices and their nature as a species, but their children, who do not share that choice, are unwilling victims; this is unacceptable to us. We desire to keep the children alive but we do not know what to do with them once they become adult and start wanting to eat their own babies. Those were all the alternatives we had gotten as far as generating, at the very moment your ship arrived."

"That is all?" demanded the Lady 3rd. "That is the sum of all your thought? Is this one of the circumstances under which your species sends signals that differ against internal belief, such as 'joking' or 'politeness'?"

"No," said Akon. "I mean, yes. Yes, that's as far as we got. No, we're not joking."

"You should understand," the Confessor said, "that this crew, also, experienced a certain distress, interfering with our normal function, on comprehending the Babyeaters. We are still experiencing it."

*And you acted to restore order, thought Akon, though not the same way as a kiritsugu...*

"I see," the Lady 3rd said.

She fell silent. There were long seconds during which she sat motionless.

Then, "Why have you not yet disabled the Babyeater ship? Your craft possesses the capability of doing so, and you must realize that your purpose now opposes theirs."

"Because," Akon said, "they did not disable our ship."

The Lady 3rd nodded. "You are symmetrists, then."

Again the silence.

Then the holo blurred, and in that blur appeared the words:

*Cultural Translator version 3.*

The blur resolved itself back into that pale woman; almost the same as before, except that the serenity of her came through with more force.

The Lady 3rd drew herself erect, and took on a look of ritual, as though she were about to recite a composed poem.

"I now speak," the Lady 3rd, "on behalf of my species, to yours."

A chill ran down Akon's spine. *This is too much, this is all too large for me -*

"Humankind!" the Lady 3rd said, as though addressing someone by name. "Humankind, you prefer the absence of pain to its presence. When my own kind attained to technology, we eliminated the causes of suffering among ourselves. Bodily pain, embarrassment, and romantic conflicts are no longer permitted to exist. Humankind, you prefer the presence of pleasure to its absence. We have devoted ourselves to the intensity of pleasure, of sex and childbirth and *untranslatable 2*. Humankind, you prefer truth to lies. By our nature we do not communicate statements disbelieved, as you do with humor, modesty, and fiction; we have even learned to refrain from withholding information, though we possess that capability. Humankind, you prefer peace to violence. Our society is without crime and without war. Through symmetric sharing and *untranslatable 4*, we share our joys and are pleased together. Our name for ourselves is not expressible in your language. But to you, humankind, we now name ourselves after the highest values we share: we are the Maximum Fun-Fun Ultra Super Happy People."

There were muffled choking sounds from the human Conference table.

"Um," Akon said intelligently. "Um... good for you?"

"Humankind! Humankind, you did not likewise repair yourselves when you attained to technology. We are still unsure if it is somehow a *mistake*, if you *did not think it through*, or if your will is truly so different from ours. For whatever reason, you currently permit the existence of suffering which our species has eliminated. Bodily pain, embarrassment, and romantic troubles are still known among you. Your existence, therefore, is shared by us as pain. Will you, humankind, by your symmetry, remedy this?"

An electric current of shock and alarm ran through the Conference. The Lord Pilot glanced significantly at the Ship's Engineer, and the Engineer just as significantly shook his head. There was nothing they could do against the alien vessel; and their own shields would scarcely help, if they were attacked.

Akon drew in a ragged breath. He was suddenly distracted, almost to the point of his brain melting, by

a sense of *futures* twisting around these moments: the fate of star systems, the destiny of all humanity being warped and twisted and shaped.

*So to you, then, it is humanity that molests kittens.*

He should have foreseen this possibility, after the experience of the Babyeaters. If the Babyeaters' existence was morally unacceptable to humanity, then the next alien species might be intolerable as well - or *they* might find humanity's existence a horror of unspeakable cruelty. That was the other side of the coin, even if a human might find it harder to think of it.

*Funny. It doesn't seem that bad from in here...*

"But -" Akon said, and only then became aware that he was speaking.

"'But'?" said the Lady 3rd. "Is that your whole reply, humankind?" There was a look on her face of something like frustration, even sheer astonishment.

He hadn't planned out this reply in any detail, but -

"You say that you feel our existence as pain," Akon said, "sharing sympathy with our own suffering. So you, also, believe that under some circumstances pain is preferable to pleasure. If you did not hurt when others hurt - would you not feel that you were... less *the sort of person you wanted to be*? It is the same with us -"

But the Lady 3rd was shaking her head. "You confuse a high conditional likelihood from your hypothesis to the evidence with a high posterior probability of the hypothesis given the evidence," she said, as if that were all one short phrase in her own language. "Humankind, we possess a *generalized* faculty to feel what others feel. That is the simple, compact relation. We did not think to complicate that faculty to exclude pain. We did not then assign dense probability that other sentient species would traverse the stars, and be encountered by us, and yet fail to have repaired themselves. Should we encounter some future species in circumstances that do not permit its repair, we will modify our empathic faculty to exclude sympathy with pain, and substitute an urge to meliorate pain."

"But -" Akon said.

*Dammit, I'm talking again.*

"But we chose this; this is what we want."

"That matters less to our values than to yours," replied the Lady 3rd. "But even you, humankind, should see that it is moot. We are still trying to untangle the twisting references of emotion by which humans might prefer pleasure to pain, and yet endorse complex theories that uphold pain over pleasure. But we have already determined that your children, humankind, do not share the grounding of these philosophies. When they incur pain they do not contemplate its meaning, they only call for it to stop. In their simplicity -"

*They're a lot like our own children, really.*

"- they somewhat resemble the earlier life stages of our own kind."

There was a electric quality now about that pale woman, a terrible intensity. "And you should understand, humankind, that when a child anywhere suffers pain and calls for it to stop, then we will answer that call if it requires sixty-five thousand five hundred and thirty-six ships."

"We believe, humankind, that you can understand our viewpoint. Have you options to offer us?"

#### **(4/8) Interlude with the Confessor**

The two of them were alone now, in the Conference Chair's Privilege, the huge private room of luxury more suited to a planet than to space. The Privilege was tiled wall-to-wall and floor-to-ceiling with a most excellent holo of the space surrounding them: the distant stars, the system's sun, the fleeing nova ashes, and the glowing ember of the dwarf star that had siphoned off hydrogen from the main sun until its surface had briefly ignited in a nova flash. It was like falling through the void.

Akon sat on the edge of the four-poster bed in the center of the room, resting his head in his hands. Weariness dulled him at the moment when he most needed his wits; it was always like that in crisis, but this was unusually bad. Under the circumstances, he didn't dare snort a hit of caffeine - it might reorder his priorities. Humanity had yet to discover the drug that was *pure* energy, that would improve your thinking without the slightest touch on your emotions and values.

"I don't know what to think," Akon said.

The Ship's Confessor was standing stately nearby, in full robes and hood of silver. From beneath the hood came the formal response: "What seems to be confusing you, my friend?"

"Did we go wrong?" Akon said. No matter how hard he tried, he couldn't keep the despair out of his voice. "Did humanity go down the wrong path?"

The Confessor was silent a long time.

Akon waited. This was why he couldn't have talked about the question with anyone else. Only a Confessor would actually think before answering, if asked a question like that.

"I've often wondered that myself," the Confessor finally said, surprising Akon. "There were so *many* choices, so many branchings in human history - what are the odds we got them *all* right?"

The hood turned away, angling in the direction of the Superhappy ship - though it was too far away to be visible, everyone on board the *Impossible Possible World* knew where it was. "There are parts of your question I can't help you with, my lord. Of all people on this ship, I might be most poorly suited to answer... But you *do* understand, my lord, don't you, that neither the Babyeaters nor the Superhappies are *evidence* that we went wrong? If you weren't worried before, you shouldn't be any *more* worried now. The Babyeaters strive to do the baby-eating thing to do, the Superhappies output the Super Happy thing to do. None of that tells us anything about the *right* thing to do. They are not asking the same question we are - no matter *what* word of their language the translator links to our

'should'. If you're confused at all about *that*, my lord, I might be able to clear it up."

"I know the theory," Akon said. Exhaustion in his voice. "They made me study metaethics when I was a little kid, sixteen years old and still in the children's world. Just so that I would never be tempted to think that God or ontologically basic moral facts or whatever had the right to override my own scruples." Akon slumped a little further. "And somehow - none of that really makes a difference when you're looking at the Lady 3rd, and wondering why, when there's a ten-year-old with a broken finger in front of you, screaming and crying, we humans only *partially* numb the area."

The Confessor's hood turned back to look at Akon. "You do realize that your brain is literally *hardwired* to generate error signals when it sees other human-shaped objects stating a different opinion from yourself. You *do* realize that, my lord?"

"I know," Akon said. "That, too, we are taught. Unfortunately, I am also just now realizing that I've only been going along with society all my life, and that I never thought the matter through for myself, until now."

A sigh came from that hood. "Well... *would* you prefer a life entirely free of pain and sorrow, having sex all day long?"

"Not... really," Akon said.

The shoulders of the robe shrugged. "You have judged. What else is there?"

Akon stared straight at that anonymizing robe, the hood containing a holo of dark mist, a shadow that always obscured the face inside. The voice was also anonymized - altered slightly, not in any obtrusive way, but you wouldn't know your own Confessor to hear him speak. Akon had no idea who the Confessor might be, outside that robe. There were rumors of Confessors who had somehow arranged to be seen *in the company* of their own secret identity...

Akon drew a breath. "You said that you, *of all people*, could not say whether humanity had gone down the wrong path. The simple fact of being a Confessor should have no bearing on that; rationalists are also human. And you told the Lady 3rd that you were *too old* to make decisions for your species. Just how old *are* you... honorable ancestor?"

There was a silence.

It didn't last long.

As though the decision had already been foreseen, premade and preplanned, the Confessor's hands moved easily upward and drew back the hood - revealing an *unblended* face, strangely colored skin and shockingly distinctive features. A face out of forgotten history, which could only have come from a time before the genetic mixing of the 21st century, untouched by DNA insertion or diaspora.

Even though Akon had been half-expecting it, he still gasped out loud. Less than one in a million: That was the percentage of the current human population that had been born on Earth before the invention of antiagathics or star travel, five hundred years ago.

"Congratulations on your guess," the Confessor said. The unaltered voice was only slightly different; but it was stronger, more masculine.

"Then you *were* there," Akon said. He felt almost breathless, and tried not to show it. "You were alive - all the way back in the days of the initial biotech revolution! That would have been when humanity first debated whether to go down the Super Happy path."

The Confessor nodded.

"Which side did you argue?"

The Confessor's face froze for a moment, and then he emitted a brief chuckle, one short laugh. "You have *entirely* the wrong idea about how things were done, back then. I suppose it's natural."

"I don't understand," Akon said.

"And there are *no* words that I can speak to make you understand. It is beyond your imagining. But you should not imagine that a violent thief whose closest approach to industry was selling uncertified hard drugs - you should not imagine, my lord, my honorable descendant, that I was ever asked to *take sides*."

Akon's eyes slid away from the hot gaze of the unmixed man; there was something *wrong* about the thread of anger still there in the memory after five hundred years.

"But time passed," the Confessor said, "time moved forward, and things changed." The eyes were no longer focused on Akon, looking now at something far away. "There was an old saying, to the effect that while someone with a *single* bee sting will pay much for a remedy, to someone with *five* bee stings, removing just one sting seems less attractive. That was humanity in the ancient days. There was so much wrong with the world that the small resources of altruism were splintered among ten thousand urgent charities, and none of it ever seemed to go anywhere. And yet... and yet..."

"There was a threshold crossed somewhere," said the Confessor, "without a single apocalypse to mark it. Fewer wars. Less starvation. Better technology. The economy kept growing. People had more resource to spare for charity, and the altruists had fewer and fewer causes to choose from. They came even to me, in my time, and rescued me. Earth cleaned itself up, and whenever something threatened to go drastically wrong again, the whole attention of the planet turned in that direction and took care of it. Humanity finally got its act together."

The Confessor worked his jaws as if there were something stuck in his throat. "I doubt you can even imagine, my honorable descendant, just how much of an impossible dream that once was. But I will not call this path mistaken."

"No, I can't imagine," Akon said quietly. "I once tried to read some of the pre-Dawn Net. I thought I wanted to know, I really did, but I - just couldn't handle it. I doubt anyone on this ship can handle it except you. Honorable ancestor, shouldn't we be asking you how to deal with the Babyeaters and the Superhappies? You are the only one here who's ever dealt with that level of emergency."

"*No*," said the Confessor, like an absolute order handed down from outside the universe. "*You* are the

world that we wanted to create. Though I can't say *we*. That is just a distortion of memory, a romantic gloss on history fading into mist. I wasn't one of the dreamers, back then. I was just wrapped up in my private blanket of hurt. But if my pain *meant* anything, Akon, it is as part of the long price of a better world than *that* one. If you look back at ancient Earth, and are horrified - then that means it was all *for* something, don't you see? You are the beautiful and shining children, and this is *your* world, and you are the ones who must decide what to do with it now."

Akon started to speak, to demur -

The Confessor held up a hand. "I *mean* it, my lord Akon. It is not polite idealism. We ancients *can't* steer. We remember too much disaster. We're too *cautious* to dare the bold path forward. Do you know there was a time when nonconsensual sex was illegal?"

Akon wasn't sure whether to smile or grimace. "The Prohibition, right? During the first century pre-Net? I expect everyone was glad to have *that* law taken off the books. I can't imagine how boring your sex lives must have been up until then - flirting with a woman, teasing her, leading her on, *knowing* the whole time that you were perfectly safe because she *couldn't* take matters into her own hands if you went a little too far -"

"You need a history refresher, my Lord Administrator. At some suitably abstract level. What I'm trying to tell you - and this is *not* public knowledge - is that we nearly tried to overthrow your government."

"*What?*" said Akon. "The *Confessors?*"

"No, *us*. The ones who remembered the ancient world. Back then we still had our hands on a large share of the capital and tremendous influence in the grant committees. When our children legalized rape, we thought that the Future had gone wrong."

Akon's mouth hung open. "You were *that* prude?"

The Confessor shook his head. "There aren't any words," the Confessor said, "there aren't any words at all, by which I ever could explain to you. No, it wasn't prudery. It was a memory of disaster."

"Um," Akon said. He was trying not to smile. "I'm trying to visualize what sort of disaster could have been caused by too much nonconsensual sex -"

"Give it up, my lord," the Confessor said. He was finally laughing, but there was an undertone of pain to it. "Without, shall we say, *personal experience*, you can't possibly imagine, and there's no point in trying."

"Well, out of curiosity - how much did you lose?"

The Confessor seemed to freeze, for a moment. "What?"

"How much did you lose in the legislative prediction markets, betting on whatever dreadful outcome you thought would happen?"

"You really wouldn't ever understand," the Confessor said. His smile was entirely real, now. "But now you know, don't you? You know, after speaking to me, that I can't ever be allowed to make decisions for humankind."

Akon hesitated. It was odd... he did know, on some gut level. And he couldn't have explained on any verbal level why. Just - that hint of *wrongness*.

"So now you know," the Confessor repeated. "And because we *do* remember so much disaster - and because it *is* a profession that benefits from being five hundred years old - many of us became Confessors. Being the voice of pessimism comes easily to us, and few indeed are those among the human kind who must rationally be nudged *upward*... We advise, but do not lead. Debate, but do not decide. We're going along for your ride, and trying not to be *too* shocked so that we can be almost as delighted as you. *You* might find yourself in a similar situation in five hundred years... if humanity survives this week."

"Ah, yes," Akon said dryly. "The aliens. The current problem of discourse."

"Yes. Have you had any thoughts on the subject?"

"Only that I really do wish that humanity had been alone in the universe." Akon's hand suddenly formed a fist and smashed hard against the bed. "*Fuck* it! I know how the Superhappies felt when they discovered that we and the Babyeaters hadn't 'repaired ourselves'. You understand what this implies about what the rest of the universe looks like, statistically speaking? Even if it's just a sample of two? I'm sure that somewhere out there are likable neighbors. Just as somewhere out there, if we go far enough through the infinite universe, there's a person who's an exact duplicate of me down to the atomic level. But every other species we ever actually *meet* is probably going to be -" Akon drew a breath. "It wasn't supposed to be like this, damn it! All three of our species have empathy, we have sympathy, we have a sense of fairness - the Babyeaters even tell *stories* like we do, they have *art*. Shouldn't that be enough? Wasn't that supposed to be enough? But all it does is put us into enough of the same reference frame that we can be *horrible* by each others' standards."

"Don't take this the wrong way," the Confessor said, "but I'm glad that we ran across the Babyeaters."

Words stuck in Akon's throat. "*What?*"

A half-smile twisted up one corner of the Confessor's face. "Because if we hadn't run across the Babyeaters, we couldn't possibly rescue the babies, now could we? Not *knowing* about their existence wouldn't mean they weren't there. The Babyeater children would still exist. They would still die in horrible agony. We just wouldn't be able to help them. If we didn't know it wouldn't be our *fault*, our *responsibility* - but *that's* not something you're supposed to optimize for." The Confessor paused. "Of course I understand how you feel. But on this vessel I am humanity's token attempt at sanity, and it is my duty to think certain strange yet logical thoughts."

"And the Superhappies?" Akon said. "The race with superior technology that may decide to exterminate us, or keep us in prison, or take our children away? Is there any silver lining to *that*?"

"The Superhappies aren't so far from us," the Confessor said. "We *could* have gone down the Super Happy path. We nearly *did* - you might have trouble imagining just how *attractive* the absence of pain

can sound, under certain circumstances. In a sense, you could say that I *tried* to go down that path - though I wasn't a very competent neuroengineer. If human nature had been only slightly different, we could easily have been within that attractor. And the Super Happy civilization is not hateful to *us*, whatever we are to them. That's good news at least, for how the rest of the universe might look." The Confessor paused. "And..."

"And?"

The Confessor's voice became harder. "And the Superhappies will rescue the Babyeater children no matter what, I think, even if humanity should fail in the task. Considering how many Babyeater children are dying, and in what pain - that could outweigh even our own extermination. Shut up and multiply, as the saying goes."

"Oh, come *on!*" Akon said, too surprised to be shocked. "If the Superhappies hadn't shown up, we would have - well, we would have done *something* about the Babyeaters, once we decided what. We wouldn't have just let the, the -"

"Holocaust," the Confessor offered.

"Good word for it. We wouldn't have just let the Holocaust go on."

"You would be *astounded*, my lord, at what human beings will *just let go on*. Do you realize the expenditure of capital, labor, maybe even *human lives* required to invade every part of the Babyeater civilization? To trace out every part of their starline network, push our technological advantage to its limit to build faster ships that can hunt down every Babyeater ship that tries to flee? Do you realize -"

"I'm sorry. You are simply mistaken as a question of fact." *Boy*, thought Akon, *you don't often get to say that to a Confessor*. "This is not your birth era, honorable ancestor. *We* are the humanity that *has its shit together*. If the Superhappies had never come along, humanity would have done whatever it took to rescue the Babyeater children. You saw the Lord Pilot, the Lady Sensory; they were ready to secede from civilization if that's what it took to get the job done. And that, honorable ancestor, is how *most* people would react."

"For a moment," said the Confessor. "In the moment of first hearing the news. When talk was cheap. When they hadn't yet visualized the costs. But once they *did*, there would be an uneasy pause, while everyone waited to see if someone *else* might act first. And faster than you imagine possible, people would adjust to that state of affairs. It would no longer sound quite so shocking as it did at first. Babyeater children are dying horrible, agonizing deaths in their parents' stomachs? Deplorable, of course, but things have always been that way. It would no longer be *news*. It would *all be part of the plan*."

"Are you high on something?" Akon said. It wasn't the most polite way he could have phrased it, but he couldn't help himself.

The Confessor's voice was as cold and hard as an iron sun, after the universe had burned down to embers. "Innocent youth, when you have watched your older brother beaten almost to death before your eyes, and seen how little the police investigate - when you have watched all four of your grandparents wither away like rotten fruit and cease to exist, while you spoke not *one word* of protest

because *you thought it was normal* - then you may speak to me of what human beings will tolerate."

"I don't believe *we* would do that," Akon said as mildly as possible.

"Then you fail as a rationalist," the Confessor said. His unhooded head turned toward the false walls, to look out at the accurately represented stars. "But I - *I will not fail again.*"

"Well, you're damn right about one thing," Akon said. He was too exhausted to be tactful. "You can't ever be allowed to make decisions for the human species."

"I know. Believe me, I know. Only youth can Administrate. That is the pact of immortality."

Akon stood up from the bed. "Thank you, Confessor. You have helped me."

With an easy, practiced motion, the Confessor slid the hood of his robe over his head, and the stark features vanished into shadow. "I have?" the Confessor said, and his recloakd voice sounded strangely mild, after that earlier masculine power. "How?"

Akon shrugged. He didn't think he could put it into words. It had something to do with the terrible vast sweep of Time across the centuries, and so much true change that had already happened, deeper by far than anything he had witnessed in his own lifetime; the requirement of courage to face the future, and the sacrifices that had been made for it; and that not everyone had been saved, once upon a time.

"I guess you reminded me," Akon said, "that you can't always get everything you want."

## **(5/8) Three Worlds Decide**

Akon strode into the main Conference Room; and though he walked like a physically exhausted man, at least his face was determined. Behind him, the shadowy Confessor followed.

The Command Conference looked up at him, and exchanged glances.

"You look better," the Ship's Master of Fandom ventured.

Akon put a hand on the back of his seat, and paused. Someone was absent. "The Ship's Engineer?"

The Lord Programmer frowned. "He said he had an experiment to run, my lord. He refused to clarify further, but I suppose it must have something to do with the Babyeaters' data -"

"You're joking," Akon said. "Our Ship's Engineer is off Nobel-hunting? *Now?* With the fate of the *human species* at stake?"

The Lord Programmer shrugged. "He seemed to think it was important, my lord."

Akon sighed. He pulled his chair back and half-slid, half-fell into it. "I don't suppose that the ship's markets have settled down?"

The Lord Pilot grinned sardonically. "Read for yourself."

Akon twitched, calling up a screen. "Ah, I see. The ship's Interpreter of the Market's Will reports, and I quote, 'Every single one of the underlying assets in my market is going up and down like a fucking yo-yo while the ship's hedgers try to adjust to a Black Swan that's going to wipe out ninety-eight percent of their planetside risk capital. Even the spot prices on this ship are going crazy; either we've got bubble traders coming out of the woodwork, or someone seriously believes that sex is overvalued relative to orange juice. One derivatives trader says she's working on a contract that will have a clearly defined value in the event that aliens wipe out the entire human species, but she says it's going to take a few hours and I say she's on crack. Indeed I believe an actual majority of the people still trying to trade in this environment are higher than the heliopause. Bid-ask spreads are so wide you could kick a fucking football *stadium* through them, nothing is clearing, and I have unisolated conditional dependencies coming out of my ass. I have no fucking clue what the market believes. Someone get me a drink.' Unquote." Akon looked at the Master of Fandom. "Any suggestions get reddited up from the rest of the crew?"

The Master cleared his throat. "My lord, we took the liberty of filtering out everything that was physically impossible, based on pure wishful thinking, or displayed a clear misunderstanding of naturalistic metaethics. I can show you the raw list, if you'd like."

"And what's left?" Akon said. "Oh, never mind, I get it."

"Well, not quite," said the Master. "To summarize the best ideas -" He gestured a small holo into existence.

*Ask the Superhappies if their biotechnology is capable of in vivo cognitive alterations of Babyeater children to ensure that they don't grow up wanting to eat their own children. Sterilize the current adults. If Babyeater adults cannot be sterilized and will not surrender, imprison them. If that's too expensive, kill most of them, but leave enough in prison to preserve their culture for the children. Offer the Superhappies an alliance to invade the Babyeaters, in which we provide the capital and labor and they provide the technology.*

"Not too bad," Akon said. His voice grew somewhat dry. "But it doesn't seem to address the question of what the Superhappies are supposed to do with *us*. The *analogous* treatment -"

"Yes, my lord," the Master said. "That was extensively pointed out in the comments, my lord. And the other problem is that the Superhappies don't really *need* our labor *or* our capital." The Master looked in the direction of the Lord Programmer, the Xenopsychologist, and the Lady Sensory.

The Lord Programmer said, "My lord, I believe the Superhappies think much faster than we do. If their cognitive systems are really based on something more like DNA than like neurons, that shouldn't be surprising. In fact, it's surprising that the speedup is as little as -" The Lord Programmer stopped, and swallowed. "My lord. The Superhappies responded to most of our transmissions extremely quickly. There was, however, a finite delay. And that delay was roughly proportional to the length of the response, plus an additive constant. Going by the proportion, my lord, I believe they think between fifteen and thirty times as fast as we do, to the extent such a comparison can be made. If I try to use Moore's Law type reasoning on some of the observable technological parameters in their ship - Alderson flux, power density, that sort of thing - then I get a reasonably convergent estimate that the

aliens are two hundred years ahead of us *in human-equivalent subjective time*. Which means it would be twelve hundred equivalent years since their Scientific Revolution."

"If," the Xenopsychologist said, "their history went as slowly as ours. It probably didn't." The Xenopsychologist took a breath. "My lord, my suspicion is that the aliens are literally able to run their entire ship using only three *kiritsugu* as sole crew. My lord, this may represent, not only the superior programming ability that translated their communications to us, but also the highly probable case that Superhappies can trade knowledge and skills among themselves by having sex. Every individual of their species might contain the memory of their Einsteins and Newtons and a thousand other areas of expertise, no more conserved than DNA is conserved among humans. My lord, I suspect their version of Galileo was something like thirty objective years ago, as the stars count time, and that they've been in space for maybe twenty years."

The Lady Sensory said, "Their ship has a plane of symmetry, and it's been getting wider on the axis through that plane, as it sucks up nova dust and energy. It's growing on a smooth exponential at 2% per hour, which means it can split every thirty-five hours in this environment."

"I have no idea," the Xenopsychologist said, "how fast the Superhappies can reproduce themselves - how many children they have per generation, or how fast their children sexually mature. But all things considered, I don't think we can count on their kids taking twenty years to get through high school."

There was silence.

When Akon could speak again, he said, "Are you all quite finished?"

"If they let us live," the Lord Programmer said, "and if we can work out a trade agreement with them under Ricardo's Law of Comparative Advantage, interest rates will -"

"Interest rates can fall into an open sewer and die. Any further transmissions from the Superhappy ship?"

The Lady Sensory shook her head.

"All right," Akon said. "Open a transmission channel to them."

There was a stir around the table. "My lord -" said the Master of Fandom. "My lord, what are you going to say?"

Akon smiled wearily. "I'm going to ask them if they have any options to offer us."

The Lady Sensory looked at the Ship's Confessor. The hood silently nodded: *He's still sane*.

The Lady Sensory swallowed, and opened a channel. On the holo there first appeared, as a screen:

*The Lady 3rd Kiritsugu*  
*temporary co-chair of the Gameplayer*  
*Language Translator version 9*  
*Cultural Translator version 16*

The Lady 3rd in this translation was slightly less pale, and looked a bit more concerned and sympathetic. She took in Akon's appearance at a glance, and her eyes widened in alarm. "My lord, you're hurting!"

"Just tired, milady," Akon said. He cleared his throat. "Our ship's decision-making usually relies on markets and our markets are behaving erratically. I'm sorry to inflict that on you as shared pain, and I'll try to get this over with quickly. Anyway -"

Out of the corner of his eye, Akon saw the Ship's Engineer re-enter the room; the Engineer looked as if he had something to say, but froze when he saw the holo.

There was no time for that now.

"Anyway," Akon said, "we've worked out that the key decisions depend heavily on your level of technology. What do you think you can actually *do* with us or the Babyeaters?"

The Lady 3rd sighed. "I really should get your independent component before giving you ours - you should at least *think* of it first - but I suppose we're out of luck on that. How about if I just tell you what we're currently planning?"

Akon nodded. "That would be much appreciated, milady." Some of his muscles that had been tense, started to relax. Cultural Translator version 16 was a lot easier on his brain. Distantly, he wondered if some transformed avatar of himself was making skillful love to the Lady 3rd -

"All right," the Lady 3rd said. "We consider that the obvious starting point upon which to build further negotiations, is to combine and compromise the utility functions of the three species until we mutually satisfy, providing compensation for all changes demanded. The Babyeaters must compromise their values to eat their children at a stage where they are not sentient - we might accomplish this most effectively by changing the lifecycle of the children themselves. We can even give the un sentient children an instinct to flee and scream, and generate simple spoken objections, but prevent their brain from developing self-awareness until after the hunt."

Akon straightened. That actually sounded - quite compassionate - sort of -

"Our own two species," the Lady 3rd said, "which desire this change of the Babyeaters, will compensate them by adopting Babyeater values, making our own civilization of greater utility in their sight: we will both change to spawn additional infants, and eat most of them at almost the last stage before they become sentient."

The Conference room was frozen. No one moved. Even their faces didn't change expression.

Akon's mind suddenly flashed back to those writhing, interpenetrating, visually *painful* blobs he had seen before.

A cultural translator could change the image, but not the reality.

"It is nonetheless probable," continued the Lady 3rd, "that the Babyeaters will not accept this change as it stands; it will be necessary to impose these changes by force. As for you, humankind, we hope you

will be more reasonable. But both your species, and the Babyeaters, must relinquish bodily pain, embarrassment, and romantic troubles. In exchange, we will change our own values in the direction of yours. We are willing to change to desire pleasure obtained in more complex ways, so long as the total amount of our pleasure does not significantly decrease. We will learn to create art you find pleasing. We will acquire a sense of humor, though we will not lie. From the perspective of humankind and the Babyeaters, our civilization will obtain much utility in your sight, which it did not previously possess. This is the compensation we offer you. We furthermore request that you accept from us the gift of *untranslatable 2*, which we believe will enhance, on its own terms, the value that you name 'love'. This will also enable our kinds to have sex using mechanical aids, which we greatly desire. At the end of this procedure, all three species will satisfice each other's values and possess great common ground, upon which we may create a civilization together."

Akon slowly nodded. It was all quite unbelievably civilized. It might even be the categorically best general procedure when worlds collided.

The Lady 3rd brightened. "A nod - is that assent, humankind?"

"It's acknowledgment," Akon said. "We'll have to think about this."

"I understand," the Lady 3rd said. "Please think as swiftly as you can. Babyeater children are dying in horrible agony as you think."

"I understand," Akon said in return, and gestured to cut the transmission.

The holo blinked out.

There was a long, terrible silence.

"No."

The Lord Pilot said it. Cold, flat, absolute.

There was another silence.

"My lord," the Xenopsychologist said, very softly, as though afraid the messenger would be torn apart and dismembered, "I do not think they were offering us that option."

"Actually," Akon said, "The Superhappies offered us more than we were going to offer the Babyeaters. *We* weren't exactly thinking about how to compensate them." It was strange, Akon noticed, his voice was very calm, maybe even deadly calm. "The Superhappies really are a very fair-minded people. You get the impression they would have proposed exactly the same solution whether or not they happened to hold the upper hand. *We* might have just enforced our own will on the Babyeaters and told the Superhappies to take a hike. If *we'd* held the upper hand. But we don't. And that's that, I guess."

"*No!*" shouted the Lord Pilot. "That's not -"

Akon looked at him, still with that deadly calm.

The Lord Pilot was breathing deeply, not as if quieting himself, but as if preparing for battle on some ancient savanna plain that no longer existed. "They want to turn us into something inhuman. It - it *cannot* - we *cannot* - we *must not allow* -"

"Either give us a better option or shut up," the Lord Programmer said flatly. "The Superhappies are smarter than us, have a technological advantage, think faster, and probably reproduce faster. We have no hope of holding them off militarily. If our ships flee, the Superhappies will simply follow in faster ships. There's no way to shut a starline once opened, and no way to conceal the fact that it is open -"

"Um," the Ship's Engineer said.

Every eye turned to him.

"Um," the Ship's Engineer said. "My Lord Administrator, I must report to you in private."

The Ship's Confessor shook his head. "You could have handled that better, Engineer."

Akon nodded to himself. It was true. The Ship's Engineer had already betrayed the fact that a secret existed. Under the circumstances, easy to deduce that it had come from the Babyeater data. That was eighty percent of the secret right there. And if it was relevant to starline physics, that was half of the remainder.

"Engineer," Akon said, "since you have already revealed that a secret exists, I suggest you tell the full Command Conference. We need to stay in sync with each other. Two minds are not a committee. We'll worry later about keeping the secret classified."

The Ship's Engineer hesitated. "Um, my lord, I suggest that I report to you first, before you decide -"

"There's no time," Akon said. He pointed to where the holo had been.

"Yes," the Master of Fandom said, "we can always slit our own throats afterward, if the secret is *that* awful." The Master of Fandom gave a small laugh -

- then stopped, at the look on the Engineer's face.

"At your will, my lord," the Engineer said.

He drew a deep breath. "I asked the Lord Programmer to compare any identifiable equations and constants in the Babyeater's scientific archive, to the analogous scientific data of humanity. Most of the identified analogues were equal, of course. In some places we have more precise values, as befits our, um, superior technological level. But one anomaly did turn up: the Babyeater figure for Alderson's Coupling Constant was *ten orders of magnitude* larger than our own."

The Lord Pilot whistled. "Stars above, how did they manage to make *that* mistake -"

Then the Lord Pilot stopped abruptly.

"Alderson's Coupling Constant," Akon echoed. "That's the... coupling between Alderson interactions

and the..."

"Between Alderson interactions and the nuclear strong force," the Lord Pilot said. He was beginning to smile, rather grimly. "It was a free parameter in the standard model, and so had to be established experimentally. But because the interaction is so incredibly... weak... they had to build an *enormous* Alderson generator to find the value. The size of a very small moon, just to give us that one number. Definitely *not* something you could check at home. That's the story in the physics textbooks, my lords, my lady."

The Master of Fandom frowned. "You're saying... the physicists faked the result in order to... fund a huge project...?" He looked puzzled.

"No," the Lord Pilot said. "Not for the love of power. Engineer, the Babyeater value should be testable using our own ship's Alderson drive, if the coupling constant is that strong. This you have done?"

The Ship's Engineer nodded. "The Babyeater value is correct, my lord."

The Ship's Engineer was pale. The Lord Pilot was clenching his jaw into a sardonic grin.

"Please explain," Akon said. "Is the universe going to end in another billion years, or something? Because if so, the issue can wait -"

"My lord," the Ship's Confessor said, "suppose the laws of physics in our universe had been such that the ancient Greeks could invent the equivalent of nuclear weapons from materials just lying around. Imagine the laws of physics had permitted a way to destroy whole countries with no more difficulty than mixing gunpowder. History would have looked quite different, would it not?"

Akon nodded, puzzled. "Well, yes," Akon said. "It would have been shorter."

"Aren't we lucky that physics *didn't* happen to turn out that way, my lord? That in our own time, the laws of physics *don't* permit cheap, irresistible superweapons?"

Akon furrowed his brow -

"But my lord," said the Ship's Confessor, "do we really know what we *think* we know? What *different* evidence would we see, if things were otherwise? After all - if *you* happened to be a physicist, and *you* happened to notice an easy way to wreak enormous destruction using off-the-shelf hardware - would *you* run out and tell you?"

"No," Akon said. A sinking feeling was dawning in the pit of his stomach. "You would try to conceal the discovery, and create a cover story that discouraged anyone else from looking there."

The Lord Pilot emitted a bark that was half laughter, and half something much darker. "It was perfect. I'm a Lord Pilot and I never suspected until now."

"So?" Akon said. "What is it, actually?"

"Um," the Ship's Engineer said. "Well... basically... to skip over the technical details..."

The Ship's Engineer drew a breath.

"Any ship with a medium-sized Alderson drive can make a star go supernova."

Silence.

"Which might seem like bad news in general," the Lord Pilot said, "but from our perspective, right here, right now, it's just what we need. A mere nova wouldn't do it. But blowing up the *whole* star - " He gave that bitter bark of laughter, again. "No star, no starlines. We can make the main star of this system go supernova - not the white dwarf, the companion. And then the Superhappies won't be able to get to us. That is, they won't be able to get to the human starline network. *We* will be dead. If you care about tiny irrelevant details like that." The Lord Pilot looked around the Conference Table. "*Do* you care? The correct answer is no, by the way."

"I care," the Lady Sensory said softly. "I care a whole lot. But..." She folded her hands atop the table and bowed her head.

There were nods from around the Table.

The Lord Pilot looked at the Ship's Engineer. "How long will it take for you to modify the ship's Alderson Drive -"

"It's done," said the Ship's Engineer. "But... we should, um, wait until the Superhappies are gone, so they don't detect us doing it."

The Lord Pilot nodded. "Sounds like a plan. Well, *that's* a relief. And here I thought the whole human race was doomed, instead of just us." He looked inquiringly at Akon. "My lord?"

Akon rested his head in his hands, suddenly feeling more weary than he had ever felt in his life. From across the table, the Confessor watched him - or so it seemed; the hood was turned in his direction, at any rate.

*I told you so*, the Confessor did not say.

"There is a certain problem with your plan," Akon said.

"Such as?" the Lord Pilot said.

"You've forgotten something," Akon said. "Something terribly important. Something you once swore you would protect."

Puzzled faces looked at him.

"If you say something bloody ridiculous like 'the safety of the ship' -" said the Lord Pilot.

The Lady Sensory gasped. "Oh, no," she murmured. "Oh, no. The Babyeater children."

The Lord Pilot looked like he had been punched in the stomach. The grim smiles that had begun to

spread around the table were replaced with horror.

"Yes," Akon said. He looked away from the Conference Table. He didn't want to see the reactions. "The Superhappies wouldn't be able to get to us. And they couldn't get to the Babyeaters either. Neither could we. So the Babyeaters would go on eating their own children indefinitely. And the children would go on dying over days in their parents' stomachs. Indefinitely. Is the human race worth that?"

Akon looked back at the Table, just once. The Xenopsychologist looked sick, tears were running down the Master's face, and the Lord Pilot looked like he were being slowly torn in half. The Lord Programmer looked abstracted, the Lady Sensory was covering her face with her hands. (And the Confessor's face still lay in shadow, beneath the silver hood.)

Akon closed his eyes. "The Superhappies will transform us into something not human," Akon said. "No, let's be frank. Something *less* than human. But not all *that* much less than human. We'll still have art, and stories, and love. I've gone entire hours without being in pain, and on the whole, it wasn't *that* bad an experience -" The words were sticking in his throat, along with a terrible fear. "Well. Anyway. If remaining whole is *that* important to us - we have the option. It's just a question of whether we're willing to pay the price. Sacrifice the Babyeater children -"

*They're a lot like human children, really.*

"- to save humanity."

Someone in the darkness was screaming, a thin choked wail that sounded like nothing Akon had ever heard or wanted to hear. Akon thought it might be the Lord Pilot, or the Master of Fandom, or maybe the Ship's Engineer. He didn't open his eyes to find out.

There was a chime.

"In-c-c-coming c-call from the *Super Happy*," the Lady Sensory spit out the words like acid, "ship, my lord."

Akon opened his eyes, and felt, somehow, that he was still in darkness.

"Receive," Akon said.

The Lady 3rd Kiritsugu appeared before him. Her eyes widened once, as she took in his appearance, but she said nothing.

*That's right, my lady, I don't look super happy.*

"Humankind, we must have your answer," she said simply.

The Lord Administrator pinched the bridge of his nose, and rubbed his eyes. Absurd, that one human being should have to answer a question like that. He wanted to foist off the decision on a committee, a majority vote of the ship, a market - something that wouldn't demand that anyone accept full responsibility. But a ship run that way didn't work well under ordinary circumstances, and there was

no reason to think that things would change under extraordinary circumstances. He was an Administrator; he had to accept all the advice, integrate it, and decide. Experiment had shown that no organizational structure of non-Administrators could match what he was trained to do, and *motivated* to do; anything that worked was simply absorbed into the Administrative weighting of advice.

Sole decision. Sole responsibility if he got it wrong. Absolute power and absolute accountability, and never forget the second half, my lord, or you'll be fired the moment you get home. Screw up *indefensibly*, my lord, and all your hundred and twenty years of accumulated salary in escrow, producing that lovely steady income, will vanish before you draw another breath.

Oh - and *this* time the whole human species will pay for it, too.

"I can't speak for all humankind," said the Lord Administrator. "I can decide, but others may decide differently. Do you understand?"

The Lady 3rd made a light gesture, as if it were of no consequence. "Are you an exceptional case of a human decision-maker?"

Akon tilted his head. "Not... *particularly*..."

"Then your decision is strongly indicative of what other human decisionmakers will decide," she said. "I find it hard to imagine that the options exactly balance in your decision mechanism, whatever your inability to admit your own preferences."

Akon slowly nodded. "Then..."

He drew a breath.

*Surely, any species that reached the stars would understand the Prisoner's Dilemma.* If you couldn't cooperate, you'd just destroy your own stars. A very easy thing to do, as it had turned out. By that standard, humanity might be something of an impostor next to the Babyeaters and the Superhappies. Humanity had kept it a secret from itself. The other two races - just managed not to do the stupid thing. You wouldn't meet anyone out among the stars, otherwise.

The Superhappies had done their very best to press C. Cooperated as fairly as they could.

Humanity could only do the same.

"For myself, I am inclined to accept your offer."

He didn't look around to see how anyone had reacted to that.

"There may be other things," Akon added, "that humanity would like to ask of your kind, when our representatives meet. Your technology is advanced beyond ours."

The Lady 3rd smiled. "We will, of course, be quite positively inclined toward any such requests. As I believe our first message to you said - 'we love you and we want you to be super happy'. Your joy will be shared by us, and we will be pleased together."

Akon couldn't bring himself to smile. "Is that all?"

"This Babyeater ship," said the Lady 3rd, "the one that did not fire on you, even though they saw you first. Are you therefore allied with them?"

"What?" Akon said without thinking. "No -"

"*My lord!*" shouted the Ship's Confessor. Too late.

"My lord," the Lady Sensory said, her voice breaking, "the Superhappy ship has fired on the Babyeater vessel and destroyed it."

Akon stared at the Lady 3rd in horror.

"I'm sorry," the Lady 3rd Kiritsugu said. "But our negotiations with them failed, as predicted. Our own ship owed them nothing and promised them nothing. This will make it considerably easier to sweep through their starline network when we return. Their children would be the ones to suffer from any delay. You understand, my lord?"

"Yes," Akon said, his voice trembling. "I understand, my lady *kiritsugu*." He wanted to protest, to scream out. But the war was only beginning, and this - *would* admittedly save -

"Will you warn them?" the Lady 3rd asked.

"No," Akon said. It was the truth.

"Transforming the Babyeaters will take precedence over transforming your own species. We estimate the Babyeater operation may take several weeks of your time to conclude. We hope you do not mind waiting. That is all," the Lady 3rd said.

And the holo faded.

"The Superhappy ship is moving out," the Lady Sensory said. She was crying, silently, as she steadily performed her duty of reporting. "They're heading back toward their starline origin."

"All right," Akon said. "Take us home. We need to report on the negotiations -"

There was an inarticulate scream, like that throat was trying to burst the walls of the Conference chamber, as the Lord Pilot burst out of his chair, burst all restraints he had placed on himself, and lunged forward.

But standing behind his target, unnoticed, the Ship's Confessor had produced from his sleeve the tiny stunner - the weapon which he alone on the ship was authorized to use, if he made a determination of outright mental breakdown. With a sudden motion, the Confessor's arm swept out...

1. ...and anesthetized the Lord Pilot [Ch. 6, Last Tears]
2. ...and anesthetized the Lord Akon [Ch. 7, Sacrificial Fire]

## **(6/8) Normal Ending: Last Tears**

Today was the day.

The streets of ancient Earth were crowded to overbursting with people looking up at the sky, faces crowded up against windows. Waiting for their sorrows to end.

Akon was looking down at their faces, from the balcony of a room in a well-guarded hotel. There were many who wished to initiate violence against him, which was understandable. Fear showed on most of the faces in the crowd, rage in some; a very few were smiling, and Akon suspected they might have simply given up on holding themselves together. Akon wondered what his own face looked like, right now.

The streets were less crowded than they might have been, only a few weeks earlier.

No one had told the Superhappies about that part. They'd sent an ambassadorial ship "in case you have any urgent requests we can help with", arriving hard on the heels of the *Impossible*. That ship had not been given any of the encryption keys to the human Net, nor allowed to land. It had made the Superhappies *extremely* suspicious, and the ambassadorial ship had disgorged a horde of tiny daughters to observe the rest of the human starline network -

But if the Superhappies *knew*, they would have tried to stop it. Somehow.

*That* was a price that no one was willing to include into the bargain, no matter what. There *had* to be that - alternative.

A quarter of the *Impossible Possible World's* crew had committed suicide, when the pact and its price became known. Others, Akon thought, had waited only to be with their families. The percentage on Earth... would probably be larger. The government, what was left of it, had refused to publish statistics. All you saw was the bodies being carried out of the apartments - in plain, unmarked boxes, in case the Superhappy ship was using optical surveillance.

Akon swallowed. The fear was already drying his own throat, the fear of changing, of becoming something else that wasn't quite *him*. He understood the urge to end that fear, at any price. And yet at the same time, he didn't, couldn't understand the suicides. Was being dead a *smaller* change? To die was *not* to leave the world, *not* to escape somewhere else; it was the simultaneous change of every piece of yourself into nothing.

Many parents had made that choice for their children. The government *had* tried to stop it. The Superhappies weren't going to like it, when they found out. And it *wasn't* right, when the children themselves wouldn't be so afraid of a world without pain. It wasn't as if the parents and children were *going* somewhere together. The government had done its best, issued orders, threatened confiscations - but there was only so much you could do to coerce someone who was going to die anyway.

So more often than not, they carried away the mother's body with her daughter's, the father with the son.

The survivors, Akon knew, would regret that *far* more vehemently, once they were closer to the

Superhappy point of view.

Just as they would regret not eating the tiny bodies of the infants.

A hiss went up from the crowd, the intake of a thousand breaths. Akon looked up, and he saw in the sky the cloud of ships, dispersing from the direction of the Sun and the Huygens starline. Even at this distance they twinkled faintly. Akon guessed - and as one ship grew closer, he knew that he was right - that the Superhappy ships were no longer things of pulsating ugliness, but gently shifting iridescent crystal, designs that both a human and a Babyeater would find beautiful. The Superhappies had been swift to follow through on their own part of the bargain. Their new aesthetic senses would already be an intersection of three worlds' tastes.

The ship drew closer, overhead. It was quieter in the air than even the most efficient human ships, twinkling brightly and silently; the way that someone might imagine a star in the night sky would look close up, if they had no idea of the truth.

The ship stopped, hovering above the roads, between the buildings.

Other bright ships, still searching for their destinations, slid by overhead like shooting stars.

Long, graceful iridescent tendrils extended from the ship, down toward the crowd. One of them came toward his own balcony, and Akon saw that it was marked with the curves of a door.

The crowd didn't break, didn't run, didn't panic. The screams failed to spread, as the strong hugged the weak and comforted them. That was something to be proud of, in the last moments of the old humanity.

The tendril reaching for Akon halted just before him. The door marked at its end dilated open.

And wasn't it strange, now, the crowd was looking up at *him*.

Akon took a deep breath. He was afraid, but -

There wasn't much point in standing here, going *on* being afraid, experiencing futile disutility.

He stepped through the door, into a neat and well-lighted transparent capsule.

The door slid shut again. Without a lurch, without a sound, the capsule moved up toward the alien ship.

One last time, Akon thought of all his fear, of the sick feeling in his stomach and the burning that was becoming a pain in his throat. He pinched himself on the arm, hard, very hard, and felt the warning signal telling him to stop.

*Goodbye*, Akon thought; and the tears began falling down his cheek, as though that one silent word had, for the very last time, broken his heart.

**END**

## (7/8) True Ending: Sacrificial Fire

Standing behind his target, unnoticed, the Ship's Confessor had produced from his sleeve the tiny stunner - the weapon which he alone on the ship was authorized to use, if he made a determination of outright mental breakdown. With a sudden motion, his arm swept outward -

- and anesthetized the Lord Akon.

Akon crumpled almost instantly, as though most of his strings had already been cut, and only a few last strands had been holding his limbs in place.

Fear, shock, dismay, sheer outright surprise: that was the Command Conference staring aghast at the Confessor.

From the hood came words absolutely forbidden to originate from that shadow: the voice of command. "Lord Pilot, take us through the starline back to the Huygens system. Get us moving *now*, you are on the critical path. Lady Sensory, I need you to enforce an absolute lockdown on all of this ship's communication systems except for a single channel under your direct control. Master of Fandom, get me proxies on the assets of every being on this ship. We are going to need capital."

For a moment, the Command Conference was frozen, voiceless and motionless, as everyone waited for someone else do to something.

And then -

"Moving the *Impossible* now, my lord," said the Lord Pilot. His face was sane once again. "What's your plan?"

"He is *not* your lord!" cried the Master of Fandom. Then his voice dropped. "Excuse me. *Confessor* - it did *not* appear to me that our Lord Administrator was insane. And *you*, of all people, cannot just seize power -"

"True," said the one, "Akon was sane. But he was also an honest man who would keep his word once he gave it, and *that* I could not allow. As for me - I have betrayed my calling three times over, and am no longer a Confessor." With that same response, the once-Confessor swept back the hood -

At any other time, the words and the move and the revealed face would have provoked shock to the point of fainting. On this day, with the whole human species at stake, it seemed merely interesting. Chaos had already run loose, madness was already unleashed into the world, and a little more seemed of little consequence.

"Ancestor," said the Master, "you are *twice* prohibited from exercising any power here."

The former Confessor smiled dryly. "Rules like that only exist within our own minds, you know. Besides," he added, "I am not *steering* the future of humanity in any real sense, just stepping in front of a bullet. That is not even advice, let alone an order. And it is... *appropriate*... that I, and not any of you, be the one who orders this thing done -"

"Fuck that up the ass with a hedge trimmer," said the Lord Pilot. "Are we going to save the human species or not?"

There was a pause while the others figured out the correct answer.

Then the Master sighed, and inclined his head in assent to the once-Confessor. "I shall follow your orders... *kiritsugu*."

Even the Kiritsugu flinched at that, but there was work to be done, and not much time in which to do it.

In the Huygens system, the *Impossible Possible World* was observed to return from its much-heralded expedition, appearing on the starline that had shown the unprecedented anomaly. Instantly, without a clock tick's delay, the *Impossible* broadcast a market order.

That was already a dozen ways illegal. If the *Impossible* had made a scientific discovery, it should have broadcast the experimental results openly before attempting to trade on them. Otherwise the result was not profit but chaos, as traders throughout the market refused to deal with you; just conditioning on the fact that you *wanted* to sell or buy from them, was reason enough for them *not* to. The whole market seized up as hedgers tried to guess what the hidden experimental results could have been, and which of their counterparties had private information.

The *Impossible* ignored the rules. It broadcast the specification of a new prediction contract, signed with EMERGENCY OVERRIDE and IMMINENT HARM and CONFESSOR FLAG - signatures that carried extreme penalties, up to total confiscation, for misuse; but any one of which ensured that the contract would appear on the prediction markets at almost the speed of the raw signal.

The *Impossible* placed an initial order on the contract backed by nearly the entire asset base of its crew.

The prediction's plaintext read:

*In three hours and forty-one minutes, the starline between Huygens and Earth will become impassable.*

*Within thirty minutes after, every human being remaining in this solar system will die.*

*All passage through this solar system will be permanently denied to humans thereafter.*

*(The following plaintext is not intended to describe the contract's terms, but justifies why a probability estimate on the underlying proposition is of great social utility:*

*ALIENS. ANYONE WITH A STARSHIP, FILL IT WITH CHILDREN AND GO! GET OUT OF HUYGENS, NOW!)*

In the Huygens system, there was almost enough time to draw a single breath.

And then the markets went mad, as every single trader tried to calculate the odds, and every married trader abandoned their positions and tried to get their children to a starport.

"Six," murmured the Master of Fandom, "seven, eight, nine, ten, eleven -"

A holo appeared within the Command Conference, a signal from the President of the Huygens Central Clearinghouse, requesting (or perhaps "demanding" would have been a better word) an interview with the Lord Administrator of the *Impossible Possible World*.

"Put it through," said the Lord Pilot, now sitting in Akon's chair as the figurehead anointed by the Kiritsugu.

"*Aliens?*" the President demanded, and then her eye caught the Pilot's uniform. "*You're* not an Administrator -"

"Our Lord Administrator is under sedation," said the Kiritsugu beside; he was wearing his Confessor's hood again, to save on explanations. "He placed himself under more stress than any of us -"

The President made an abrupt cutting gesture. "Explain this - *contract*. And if this is a market manipulation scheme, I'll see you all tickled until the last sun grows cold!"

"We followed the starline that showed the anomalous behavior," the Lord Pilot said, "and found that a nova had just occurred in the originating system. In other words, my Lady President, it was a direct effect of the nova and thus occurred on *all* starlines leading out of that system. We've never found aliens before now - but that's reflective of the probability of any *single* system we explore having been colonized. There might even be a starline leading out of this system that leads to an alien domain - but we have no way of knowing *which* one, and opening a new starline is expensive. The nova acted as a common rendezvous signal, my Lady President. It reflects the probability, not that we and the aliens encounter each other by direct exploration, but the probability that we have at least one *neighboring* world in common."

The President was pale. "And the aliens are hostile."

The Lord Pilot involuntarily looked to the Kiritsugu.

"Our values are incompatible," said the Kiritsugu.

"Yes, that's one way of putting it," said the Lord Pilot. "And unfortunately, my Lady President, their technology is considerably in advance of ours."

"Lord... Pilot," the President said, "are you certain that the aliens intend to wipe out the human species?"

The Lord Pilot gave a very thin, very flat smile. "Incompatible values, my Lady President. They're quite skilled with biotechnology. Let's leave it at that."

Sweat was running down the President's forehead. "And why did they let *you* go, then?"

"We arranged for them to be told a plausible lie," the Lord Pilot said simply. "One of the reasons they're more advanced than us is that they're not very good at deception."

"None of this," the President said, and now her voice was trembling, "none of this explains why the starline *between Huygens and Earth* will become impassable. Surely, if what you say is true, the aliens will pour through our world, and into Earth, and into the human starline network. Why do you think that this one starline will *luckily* shut down?"

The Lord Pilot drew a breath. It was good form to tell the exact truth when you had something to hide. "My Lady President, we encountered *two* alien species at the nova. The first species exchanged scientific information with us. It is the second species that we are running from. But, from the *first* species, we learned a fact which this ship can use to shut down the Earth starline. For obvious reasons, my Lady President, we do not intend to share this fact publicly. That portion of our final report will be encrypted to the Chair of the Interstellar Association for the Advancement of Science, and to no other key."

The President started laughing. It was wild, hysterical laughter that caused the Kiritsugu's hood to turn toward her. From the corner of the screen, a gloved hand entered the view; the hand of the President's own Confessor. "My lady..." came a soft female voice.

"Oh, *very* good," the President said. "Oh, marvelous. So it's *your* ship that's going to be responsible for this catastrophe. You admit that, eh? I'm amazed. You probably managed to avoid telling a single direct lie. You plan to blow up our star and kill fifteen billion people, and you're trying to stick to the literal truth."

The Lord Pilot slowly nodded. "When we compared the first aliens' scientific database to our own -"

"No, don't tell me. I was told it could be done by a single ship, but I'm not supposed to know how. Astounding that an alien species could be so peaceful they don't even consider *that* a secret. I think I would like to meet these aliens. They sound much nicer than the other ones - why are you laughing?"

"My Lady President," the Lord Pilot said, getting a grip on himself, "forgive me, we've been through a lot. Excuse me for asking, but are you evacuating the planet or what?"

The President's gaze suddenly seemed sharp and piercing like the fire of stars. "It was set in motion instantly, of course. No *comparable* harm done, if you're wrong. But three hours and forty-one minutes is not enough time to evacuate *ten percent* of this planet's *children*." The President's eyes darted at something out of sight. "With eight hours, we could call in ships from the Earth nexus and evacuate the whole planet."

"My lady," a soft voice came from behind the President, "it is the whole human species at stake. Not just the entire starline network beyond Earth, but the entire future of humanity. *Any* incrementally higher probability of the aliens arriving within that time -"

The President stood in a single fluid motion that overturned her chair, moving so fast that the viewpoint bobbed as it tried to focus on her and the shadow-hooded figure standing beside. "Are you telling me," she said, and her voice rose to a scream, "to *shut up and multiply*?"

"Yes."

The President turned back to the camera angle, and said simply, "No. You don't *know* the aliens are

following that close behind you - do you? We don't even *know* if you can shut down the starline! No matter what your *theory* predicts, it's never been tested - right? What if you create a flare bright enough to roast our planet, but not explode the whole sun? Billions would die, for *nothing*! So if you do not promise me a minimum of - let's call it nine hours to finish evacuating this planet - then I will order your ship destroyed before it can act."

No one from the *Impossible* spoke.

The President's fist slammed her desk. "Do you understand me? *Answer!* Or in the name of Huygens, I will destroy your ship -"

Her Confessor caught her President's body, very gently supporting it as it collapsed.

Even the Lord Pilot was pale and silent. But *that*, at least, had been within law and tradition; no one could have called that thinking sane.

On the display, the Confessor bowed her hood. "I will inform the markets that the Lady President was driven unstable by your news," she said quietly, "and recommend to the government that they carry out the evacuation without asking further questions of your ship. Is there anything else you wish me to tell them?" Her hood turned slightly, toward the Kiritsugu. "Or tell me?"

There was a strange, quick pause, as the shadows from within the two hoods stared at each other.

Then: "No," replied the Kiritsugu. "I think it has all been said."

The Confessor's hood nodded. "Goodbye."

"There it goes," the Ship's Engineer said. "We have a complete, stable positive feedback loop."

On screen was the majesty that was the star Huygens, of the inhabited planet Huygens IV. Overlaid in false color was the recirculating loop of Alderson forces which the *Impossible* had steadily fed.

Fusion was now increasing in the star, as the Alderson forces encouraged nuclear barriers to break down; and the more fusions occurred, the more Alderson force was generated. Round and round it went. All the work of the *Impossible*, the full frantic output of their stardrive, had only served to subtly steer the vast forces being generated; nudge a fraction into a circle rather than a line. But now -

Did the star brighten? It was only their imagination, they knew. Photons take centuries to exit a sun, under normal circumstances. The star's core was trying to expand, but it was expanding too slowly - all too slowly - to outrun the positive feedback that had begun.

"Multiplication factor one point oh five," the Engineer said. "It's climbing faster now, and the loop seems to be intact. I think we can conclude that this operation is going to be... successful. One point two."

"Starline instability detected," the Lady Sensory said.

Ships were still disappearing in frantic waves on the starline toward Earth. Still connected to the Huygens civilization, up to the last moment, by tiny threads of Alderson force.

"Um, if anyone has anything they want to add to our final report," the Ship's Engineer said, "they've got around ten seconds."

"Tell the human species from me -" the Lord Pilot said.

"Five seconds."

The Lord Pilot shouted, fist held high and triumphant: "*To live, and occasionally be unhappy!*"

This concludes  
the full and final report  
of the *Impossible Possible World*.

## (8/8) Epilogue: Atonement

Fire came to Huygens.

The star erupted.

Stranded ships, filled with children doomed by a second's last delay, still milled around the former Earth transit point. Too many doomed ships, far too many doomed ships. They should have left a minute early, just to be *sure*; but the temptation to load in that one last child must have been irresistible. To do the warm and fuzzy thing just this one time, instead of being cold and calculating. You couldn't blame them, could you...?

Yes, actually, you could.

The Lady Sensory switched off the display. It was too painful.

On the Huygens market, the price of a certain contract spiked to 100%. They were all rich in completely worthless assets for the next nine minutes, until the supernova blast front arrived.

"So," the Lord Pilot finally said. "What kind of asset retains its value in a market with nine minutes to live?"

"Booze for immediate delivery," the Master of Fandom said promptly. "That's what you call a -"

"Liquidity preference," the others chorused.

The Master laughed. "All right, that was too obvious. Well... chocolate, sex -"

"Not necessarily," said the Lord Pilot. "If you can use up the whole supply of chocolate at once, *does* demand outstrip supply? Same with sex - the value could actually *drop* if everyone's suddenly willing. Not to mention: *Nine minutes?*"

"All right then, expert oral sex from experienced providers. And hard drugs with dangerous side effects; the demand would rise hugely relative to supply -"

"This is inane," the Ship's Engineer commented.

The Master of Fandom shrugged. "What *do* you say in the unrecorded last minutes of your life that is *not* inane?"

"It doesn't matter," said the Lady Sensory. Her face was strangely tranquil. "Nothing that we do now matters. We won't have to live with the consequences. No one will. All this time will be obliterated when the blast front hits. The role I've always played, the picture that I have of *me*... it doesn't matter. There's... a peace... in not having to be Dalia Ancromein any more."

The others looked at her. Talk about killing the mood.

"Well," the Master of Fandom said, "since you raise the subject, I suppose it *would* be peaceful if not

for the screaming terror."

"You don't *have* to feel the screaming terror," the Lady Sensory said. "That's just a picture you have in your head of how it *should* be. The *role* of someone facing imminent death. But I don't *have* to play any more roles. I don't *have* to feel screaming terror. I don't *have* to frantically pack in a few last moments of fun. There are no more obligations."

"Ah," the Master of Fandom said, "so I guess this is when we find out who we really are." He paused for a moment, then shrugged. "I don't seem to be anyone in particular. Oh well."

The Lady Sensory stood up, and walked across the room to where the Lord Pilot stood looking at the viewscreen.

"My Lord Pilot," the Lady Sensory said.

"Yes?" the Lord Pilot said. His face was expectant.

The Lady Sensory smiled. It was bizarre, but not frightening. "Do you know, my Lord Pilot, that I had often thought how wonderful it would be to kick you very hard in the testicles?"

"Um," the Lord Pilot said. His arms and legs suddenly tensed, preparing to block.

"But now that I could do it," the Lady Sensory said, "I find that I don't really *want* to. It seems... that I'm not as awful a person as I thought." She gave a brief sigh. "I wish that I had realized it earlier."

Pause.

The Lord Pilot's hand swiftly darted out and groped the Lady Sensory's breast. It was so unexpected that no one had time to react, least of all her. "Well, what do you know," the Pilot said, "I'm just as much of a pervert as I thought. My self-estimate was more accurate than yours, nyah nyah -"

The Lady Sensory kned him in the groin, hard enough to drop him moaning to the floor, but not hard enough to require medical attention.

"Okay," the Master of Fandom said, "can we please not go down this road? I'd like to die with at least *some* dignity."

There was a long, awkward silence, broken only by a quiet "Ow ow ow ow..."

"Would you like to hear something amusing?" asked the Kiritsugu, who had once been a Confessor.

"If you're going to ask that question," said the Master of Fandom, "when the answer is obviously yes, thus wasting a few more seconds -"

"Back in the ancient days that none of you can imagine, when I was seventeen years old - which was underage even then - I stalked an underage girl through the streets, slashed her with a knife until she couldn't stand up, and then had sex with her before she died. It was probably even worse than you're imagining. And deep down, in my very core, I enjoyed every minute."

Silence.

"I don't think of it often, mind you. It's been a long time, and I've taken a lot of intelligence-enhancing drugs since then. But still - I was just thinking that maybe what I'm doing now *finally* makes up for that."

"Um," said the Ship's Engineer. "What we just did, in fact, was kill fifteen billion people."

"Yes," said the Kiritsugu, "that's the amusing part."

Silence.

"It seems to me," mused the Master of Fandom, "that I should feel a lot worse about that than I actually do."

"We're in shock," the Lady Sensory observed distantly. "It'll hit us in about half an hour, I expect."

"I think it's starting to hit me," the Ship's Engineer said. His face was twisted. "I - I was so worried I *wouldn't* be able to destroy my home planet, that I didn't get around to feeling unhappy about *succeeding* until now. It... hurts."

"I'm mostly just numb," the Lord Pilot said from the floor. "Well, except down there, unfortunately." He slowly sat up, wincing. "But there was this absolute unalterable thing inside me, screaming so loud that it overrode everything. I never knew there was a place like that within me. There wasn't room for anything else until humanity was safe. And now my brain is worn out. So I'm just numb."

"Once upon a time," said the Kiritsugu, "there were people who dropped a U-235 fission bomb, on a place called Hiroshima. They killed perhaps seventy thousand people, and ended a war. And if the good and decent officer who pressed that button had needed to walk up to a man, a woman, a child, and slit their throats one at a time, he would have broken long before he killed seventy thousand people."

Someone made a choking noise, as if trying to cough out something that had suddenly lodged deep in their throat.

"But pressing a button is different," the Kiritsugu said. "You don't see the results, then. Stabbing someone with a knife has an impact on you. The first time, anyway. Shooting someone with a gun is easier. Being a few meters further away makes a surprising difference. Only needing to pull a trigger changes it a lot. As for pressing a button on a spaceship - that's the easiest of all. Then the part about 'sixteen billion' just gets flushed away. And more importantly - you think it was the *right* thing to do. The noble, the moral, the honorable thing to do. For the safety of your tribe. You're *proud* of it -"

"Are you saying," the Lord Pilot said, "that it was *not* the right thing to do?"

"No," the Kiritsugu said. "I'm saying that, right or wrong, the *belief* is all it takes."

"I see," said the Master of Fandom. "So you can kill billions of people without feeling much, so long as you do it by pressing a button, and you're sure it's the right thing to do. That's human nature." The Master of Fandom nodded. "What a valuable and important lesson. I shall remember it all the rest of

my life."

"Why *are* you saying all these things?" the Lord Pilot asked the Kiritsugu.

The Kiritsugu shrugged. "When I have no reason left to do anything, I am someone who tells the truth."

"It's wrong," said the Ship's Engineer in a small, hoarse voice, "I *know* it's wrong, but - I keep wishing the supernova would hurry up and get here."

"There's no reason for you to hurt," said the Lady Sensory in a strange calm voice. "Just ask the Kiritsugu to stun you. You'll never wake up."

"...no."

"Why not?" asked the Lady Sensory, in a tone of purely abstract curiosity.

The Ship's Engineer clenched his hands into fists. "Because if hurting is that much of a crime, then the Superhappies are right." He looked at the Lady Sensory. "You're wrong, my lady. These moments are as real as every other moment of our lives. The supernova can't make them not exist." His voice lowered. "That's what my cortex says. My diencephalon wishes we'd been closer to the sun."

"It could be worse," observed the Lord Pilot. "You could *not* hurt."

"For myself," the Kiritsugu said quietly, "I had already visualized and accepted this, and then it was just a question of watching it play out." He sighed. "The most dangerous truth a Confessor knows is that the rules of society are just consensual hallucinations. Choosing to wake up from the dream means choosing to end your life. I knew that when I stunned Akon, even apart from the supernova."

"Okay, look," said the Master of Fandom, "call me a gloomy moomy, but does anyone have something *uplifting* to say?"

The Lord Pilot jerked a thumb at the expanding supernova blast front, a hundred seconds away. "What, about *that*?"

"Yeah," the Master of Fandom said. "I'd like to end my life on an up note."

"We saved the human species," offered the Lord Pilot. "Man, that's the sort of thing you could just repeat to yourself over and over and over again -"

"Besides that."

"Besides *WHAT*?"

The Master managed to hold a straight face for a few seconds, and then had to laugh.

"You know," the Kiritsugu said, "I don't think there's anyone in modern-day humanity, who would regard my past self as anything but a poor, abused victim. I'm pretty sure my mother drank during

pregnancy, which, back then, would give your child something called Fetal Alcohol Syndrome. I was poor, uneducated, and in an environment so entrepreneurially hostile you can't even imagine it -"

"This is *not sounding uplifting*," the Master said.

"But somehow," the Kiritsugu said, "all those wonderful excuses - I could never quite believe in them *myself*, afterward. Maybe because I'd also thought of some of the same excuses *before*. It's the part about not doing *anything* that got to me. Others fought the war to save the world, far over my head. Lightning flickering in the clouds high above me, while I hid in the basement and suffered out the storm. And by the time I was rescued and healed and educated, in any shape to help others - the battle was essentially over. Knowing that I'd been a victim for someone *else* to save, one more point in someone else's high score - that just stuck in my craw, all those years..."

"...anyway," the Kiritsugu said, and there was a small, slight smile on that ancient face, "I feel better now."

"So does that mean," asked the Master, "that now your life is finally complete, and you can die without any regrets?"

The Kiritsugu looked startled for a moment. Then he threw back his head and laughed. True, pure, honest laughter. The others began to laugh as well, and their shared hilarity echoed across the room, as the supernova blast front approached at almost exactly the speed of light.

Finally the Kiritsugu stopped laughing, and said:

"Don't be ridicu-"

**FIN**