The Three-Body Problem Study Guide

The Three-Body Problem by Cixin Liu

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Plot Summary

NOTE: This study guide refers to the 2014 Tor Paperback edition and translation by Ken Liu of "The Three-Body Problem" by Cixin Liu.

"The Three-Body Problem" is a science fiction novel by Cixin Liu (and translated by Ken Liu) which traces the efforts of disillusioned Chinese scientists who implore alien life to come to Earth to forcibly redeem humanity. When the novel begins in the 1960s, China is in the midst of its Cultural Revolution in which various factions in the Communist Party – especially among younger members – accuse one another of not being radical enough. Countless die, including Ye Wenjie's father, a professor, who is beaten to death by four teenage girls with belts. Ye Wenjie, an academic in the field of astrophysics herself, is forcibly conscripted into a unit of Chinese civilians responsible for deforestation near Radar Peak, which breaks her heart. She meets a reporter named Bai Mulin, who like Ye Wenjie, has a soft spot for the environment –something the Communists consider weak and Western. Wenjie helps Bai to write a letter urging the Party to reconsider its stance on the environment, but this lands her in serious trouble.

Ye Wenjie is given a choice. Based on her stellar academic credentials, she can join the operations of Red Coast Base on Radar Peak, or she can face severe punishment. Ye Wenjie chooses Red Coast Base, and there helps to monitor for signals from extraterrestrial, or alien life. As the years pass, Ye Wenjie marries the base commander and settles into a comfortable routine of work, sending out messages about Earth to any life that may receive them. Finally, a message returns from the Trisolaran civilization on the planet Trisolaris. The message is a warning not to respond, or Earth's coordinates will be identified. Ye Wenjie, believing the humans of Earth need a moral awakening by an outside force, responds. The Trisolarans, who have endured unpredictable lives due to the erratic rotation of three suns, decide to conquer Earth. It will take them 450 years to reach Earth, and they know that by their arrival, human beings will have superior technology, so they hatch a new plan.

Decades pass. Working with Ye Wenjie's growing group of supporters who cheer the idea of alien invasion, the Trisolarans begin to undermine human faith in science and technology so that they will begin to lose their sense of progress and purpose, while at the same time sending two alien protons to Earth to disrupt scientific results. As this occurs, numerous scientists begin to commit suicide or are found dead, with all of them declaring they have lost faith in science. Wang Miao, a nanomaterials researcher, is contacted by a secret international network of political, military, and scientific members called the Battle Command Center, who are seeking to solve the mystery surrounding the scientific community. Wang befriends the gruff military veteran-turned-police detective, Shi Qiang, and the two undertake further investigation. At the same time, Wang discovers an online game called "Three Body" in which the physical environment of Trisolaris is presented for players to attempt to solve regarding the three suns. The game ends with the player being told that the planet is hopeless, and a new home must be sought.



As Wang plays, he is invited to join a group of players, which he discovers to be Ye Wenjie's group. It is then that he learns there are factions within the group, including those who want the Trisolaran aliens to forcibly redeem and improve humanity, and those who want the Trisolarans to exterminate humanity. It is also learned that those who wish for extermination have been withholding critical Trisolaran messages from the others. The meeting is broken up by Shi and a unit of soldiers and policemen. Using nanotechnology in the form of razor-sharp wires to slice apart the group's traveling radar system ship, Wang and Battle Command learn the truth about the Trisolarans, and reveal this to Ye Wenjie. Wenjie is less stunned than annoyed. The Trisolarans then send a message to all humankind to announce their existence and intentions, calling humankind "bugs." This causes Wang to fall into despair, but Shi reminds Wang that, despite superior technology, humans have not been able to conquer bugs. Ye Wenjie is later given access to the old Red Coast Base ruins, where she presumably commits suicide reflecting on the sunset of humanity.



Part 1, Chapters 1 – Part 2, Chapter 7

Summary

Part 1: Silent Spring

In Chapter 1, The Madness Years, the veteran Red Guards of the Red Union assault the headquarters of the Red Guards of the April Twenty-Eighth Brigade in China in 1967 as part of the factional civil wars of the Great Proletarian Cultural Revolution. The April Twenty-Eighth brigade is new but determined to fight to the death, killing themselves if needed by way of explosives packed into the building's iron stoves. A 15-year-old girl and member of the Brigade defiantly waves a flag from the rooftop, and is shot down. All across Beijing, the fighting rages as those considered "Monsters and Demons," the enemies of the Communist Revolution, many of them intellectuals and academics. Among those intellectuals who have survived is Professor Ye Zhetai, a physicist at Tsinghua University, but he is now being tried before a mob of angry Bolshevik students who consider his teaching of relativity to be treason because Einstein is considered an American Imperialist reactionary academic authority.

Ye Zhetai's wife, Shao Lin, also a professor, stands up and announces it was she who denounced and exposed Ye Zhetai. Shao Lin has taught her students that the work of academics is actually the work of the masses, stolen and taken credit for by the intellectuals. Ironically, Ye Zhetai knows that Shao Lin comes from a wealthy family of prominent intellectuals who worked with Einstein, but he does not say this. Shao Lin and others go on to berate Ye Zhetai for teaching the Big Bang Theory, since it leaves open the possibility for God's existence, something totally unacceptable to the Communists. Four 14-year-old girls, who have been acting as guards, then beat Ye Zhetai to death with their belts while Shao Lin laughs. Ye Zhetai's daughter, Ye Wenjie, tries to rush to help her father, but is held back by two old janitors who warn her not to risk her life. Ye Wenjie then goes to the home of Professor Ruan Wen, who has been a second mother to her and helped to see her through college as her advisor. She discovers that Ruan has committed suicide by sleeping pills.

In Chapter 2, Silent Spring, it is now two years later in the Greater Khingan Mountains. Ye Wenjie is now a part of the Inner Mongolia Production and Construction Corps, which clears field, fells trees, and tends to grazing animals. Ye Wenjie is stationed near Radar Peak, where a military radar installation is located. Ye Wenjie and Bai Mulin, a reporter for the Corps's Great Production News, are saddened by the deforestation. Bai learns from Ma Gang, a chainsaw operator, that he was able to cut through the 330-year-old tree in ten minutes. Ma Gang says it is just a tree. Bai has Ye Wenjie sit beside him to go on break. Bai and Ye Wenjie are very rare individuals who must keep their sadness a secret, or they will be considered pro-Western and reactionary to progress. Bai then gives Ye Wenjie the book Silent Spring by Rachel Carson, and explains there is a small movement in the Communist Party reconsidering the amount of deforestation of the Corps, but it has little traction. Reading Silent Spring causes Ye Wenjie to believe



a moral awakening for people can only come when a force outside of the human race causes it. Bai is interested to learn that Ye Wenjie has studied astrophysics, while Ye Wenjie is interested to learn that Bai is writing a letter to the central leadership about deforestation and pollution. Ye Wenjie agrees to copy the letter in her own, neat handwriting because Bai's is so messy.

A few weeks later, Director Zhang of the Division Political Department comes to interrogate Ye Wenjie about the letter. Ye Wenjie explains her part in things. Zhang says that Bai has already confessed to having mailed the letter on Ye Wenjie's behalf, having not known of the contents. Zhang goes on to say that Bai's copy of Silent Spring was reported stolen, and that it had originally been given to him to criticize. Likewise, the book and its contents have now officially been declared Western propaganda. Bai, who never intended to frame Ye Wenjie, has only done so out of fear for his own life. Ye Wenjie is arrested and visited in her jail cell by a female officer named Cheng Lihua, who says all young people make mistakes. Cheng then encourages Ye Wenjie to sign a document relating to her father's past, conversations, meetings, and other details, which seem to have something to do with a national defense project. Ye Wenjie's younger sister, Wenxue, is responsible for the document's contents. Signing would save Ye Wenjie's life, while refusing to sign could result in serious trouble. Ye Wenjie refuses, is doused with ice water, and passes out. As she does, she thinks about her sister, who was the girl killed at the April Twenty-Eighth headquarters fight.

In Chapter 3, Red Coast I, Ye Wenjie awakens briefly, feverishly, as she is being transported somewhere in a helicopter with two men who introduce themselves as Lei Zhicheng, Political Commissar of Red Coast Base, and Yang Weining, Red Coast Base Chief Engineer. They are both interested to know that Ye Wenjie is the author of a 1966 Journal of Astrophysics article about the possibility of phase boundaries, and their reflective characteristics in the solar radiation zone. Ye Wenjie is stunned, for she knows that Yang Weining was a student of her father's from many years before. Ye later overhears the men talking about her qualifications being unmatched by anyone in the military, and that the project cannot risk raising questions by conducting an extensive search outside the military. Likewise, the project needs someone who can remain on base for an extended period of time. Le Wenjie has such potential, and so is brought to Red Coast Base, otherwise known as Radar Peak, a gated area of white buildings and a massive radar dish. Le Wenjie agrees to join even though she can never leave again, knowing her punishment otherwise will be severe. She watches the station undertake a test transmission, which illuminates clouds and leads to the death of a flock of birds.

Part 2, Three Body

In Chapter 4, The Frontiers of Science, 40-some years have passed. Wang Miao, a nanomaterials researcher most recently in charge of the Sintron II high-energy particle accelerator project at the Nanotechnology Research Center, is approached by two police officers and two military officers of the People's Liberation Army. They ask briefly about Wang's contact with the Frontiers of Science, an international academic group legally recognized in China, and invite a reluctant Wang to a meeting of academics at the Battle Command Center. The meeting room is full not only of Chinese military



officers and academics, but Westerners as well, including an American Air Force colonel and NATO liaison, a British Army colonel and NATO liaison, and two American CIA officers. Among the Chinese is one of the police officers who invited Wang, Detective Shi Qiang. Shi asks about the nanomaterial Wang has been working with, so strong and sharp it can either lift or cut a car in half with a single strand. Shi has been hired on to the group to help repair a damaged reputation.

In charge of the group's meeting is Chinese General Chang Weisi. Chang explains that recently, the enemy has been intensifying attacks against elite scientists. Among the dead is Yang Dong, a beautiful woman and scientist Wang had met the previous year. All those who have died have committed suicide under the written confession that physics does not exist. This is stunning to Wang. Dr. Ding Yi, boyfriend of Yang Dong, explains that the group is investigating the Frontiers of Science, which is in turn questioning the limits of science because the study of physics seems to have hit a wall beyond which no new study is possible. Wang is asked about his relations with the Frontiers, to which he explains he was introduced to them by Chinese-Japanese physicist Shen Yufei, but refused to join because of his overwhelming work schedule. Chang then tells Wang they want him to join the group. Wang reluctantly agrees. Chang later explains that Shi was a soldier under his command 20 years before. Change also explains that more details will be given to Wang in time for the war they are fighting.

In Chapter 5, A Game of Pool, Wang goes to see Ding Yi at his apartment, where Ding Yi not only owns a pool table, but is drinking and reflecting on the loss of Yang Dong. Ding tells Wang that the Frontiers of Science have nothing to do with the deaths of the academics. Ding then invites Wang to play a game of pool to begin a discussion about physics being invariant across space and time as each ball goes in each hole. Ding explains that if each ball had done something differently, such as shooting up into the ceiling, ideas about physics would change. He then explains that there are three pool tables – one in North America, one in Europe, and one in China – where such things are possible by the use of high-energy particle accelerators raising the amount of energy available so that each time a ball is hit, something different happens. This means, Ding explains, that physics does not exist, just like Yang Dong's confessional suicide note said.

In Chapter 6, The Shooter and the Farmer, Wang uses his weekend to do photography, which he loves, while his wife and son head out on errands. Wang's mind is troubled by the physics discussion, however. At home developing the film, Wang sees each picture has numbers on them, such as 1200:00:00, 1199:49:33, and 1194:16:37. At first, Wang thinks something is wrong with the film for numbers to appear in the middle of each picture, but learns the film is good. In a picture of an old tree, Wang notices the numbers following the pattern of the tree. He realizes the numbers are timestamps, and that they signaled a countdown of just under 50 days. Wang shoots another few rolls of film outside to learn the same thing, and begins to panic. He borrows a digital camera from his neighbor, Dr. Zhang, and asks his wife Yao and son, Dou Dou, to take some pictures. No numbers appear on the photos they take. Wang rushes out to see Shen Yufei. Shen is seemingly playing an online game on a website called 3body.net in a haptic feedback V-suit. Shen tells Wang to stop his research, even if it is for a national



project. It is then that Wang realizes the Frontiers of Science group is up to something, which Shen explains includes matters far more fundamental than Wang can imagine.

As Wang heads to leave, biologist and prominent Frontiers members Pan Han arrives. Pan Han is famous for his Pastoral China movement, in which people live in cities off of trash, and his opinion that technological progress is a disease. Pan tells Wang not to force them to use their hand. At home that night, Wang is plagued by nightmares. When he awakens, the countdown has now appeared in his vision. He goes to the hospital about this, but is told he is merely suffering from stress. Back at work, Wang has his team halt their progress on catalytic reactions to perform maintenance in order to buy time to figure out what is wrong with himself. Suddenly, the numbers disappear. He then calls Shen and asks what is going on. She admits the numbers are their doing, and that she is trying help Wang avoid Dong's fate. Wang challenges her for more proof, so she sends him to a website to print something out to keep with him until he can find a place to view the cosmic microwave background. In three days' time, when the reaction work is restarted, the countdown will commence again, and this time, the entire universe will flicker.

In Chapter 7, Three Body: King Wen of Zhou and the Long Night, Wang calls Ding to explain he has seen something. Ding explains that many scientists have seen something, too. He urges Wang to see Yang Dong's mother. Wang agrees, then prints out the Morse Code chart from the website. He then puts on a V-suit and types in 3body.net where he registers under the screenname "Hairen" and logs in. In the game, he meets King Wen of Zhou who explains they are in China's Warring States Period, and a Follower who explains that Zhou has survived until now, even though in real history, Wen was dead by the Period. The two are carrying a heavy clock that measures time by running sand. They explain they are in a Chaotic Era, and things such as the sun not always rising in the morning, occur. They also explain they are on the way to Zhou's court in Zhao Ge. To travel more effectively, Follower dehydrates and is rolled up like a mat to be rehydrated later. Weeks pass in the game. Two flying stars are then seen, which indicate the coming of a Stable Era. Wen says he will be presenting an accurate calendar for eras at the court in Zhao Ge, where predicting the sun's motions is possible because Zhao Ge is where yin and yang meet. At last, Zhao Ge is reached, where the place is overhung by a massive system of giant pendulums.

In the Great Hall, Wen comes before King Zhou to report his findings about the sun not being a god and not being able to be controlled, but predicted. He then draws a yin yang symbol on the floor, surrounded by the 64 hexagrams of the I Ching to make it appear as though a calendar wheel. Wen predicts the next several Chaotic and Stable periods, which Zhou says must be verified. Time in the game is sped up to do so. King Zhou is amazed and declares he will honor Wen. All dehydrated subjects of the Kingdom are rehydrated for a more than three-year golden era of stability. However, the long period is cut short by three stars in the sky, indicating cold so severe it could break stone. The king gives orders to dehydrate. Here, the game ends with the line of text indicating that Civilization 137 is destroyed by the extreme cold and snow, and that the player is invited to play again in the future.



Analysis

"The Three-Body Problem," a Chinese science fiction novel by Cixin Liu, recounts the attempts of disillusioned Chinese scientists to encourage the Trisolaran alien civilization to come to Earth to forcibly reform humanity. Acting on the assumption that humanity cannot redeem itself, these extremists are first reflected early in the novel, in the writer's thematic idea that any form of extremism is dangerous to humanity. This is clearly illustrated by the Cultural Revolution in China. There is the idealistic and idiotic death that Ye Wenjie's sister dies in a fruitless attempt at defiance by waving a flag from the building under siege, while at the same time, young people across Beijing turn on anyone they suspect of not being extreme enough, imprisoning, torturing, and killing at will.

The extremism that Ye Wenjie's sister exhorts cripples the family when Ye Wenjie's own father faces such radical violence. The Communists believe the idea that everything must flow from the Communist ideology. In other words, science must be guided by Communism rather than acting independently to reach conclusions so as to avoid bearing any real similarity to the West. Ye Wenjie's father is actually accused of Western sympathies for teaching about Einstein's theories because they have been developed in the West. This extremism – blind to truth – ultimately costs Ye Wenjie's father his life in a brutal way, as he is beat to death by four teenage girls.

This extremism can also be seen in the following chapters, when Ye Wenjie herself is accused of Western sympathies for harboring gentle thoughts about nature, and when she is threatened with severe punishment for daring to question the Communist Party's official position on nature – that it is meaningless except as for what it can do for Communism and progress. Ye Wenjie is repelled by this extremism, and looks on the mass deforestation around her as a moral crime that requires reform on the part of people. The reader should carefully note that Ye Wenjie believes this kind of moral reformation can only be brought about by an outside force.

Decades later, another wave of extremism is sweeping not only China, but the world, as scientists are giving up on science, committing suicide, or are being murdered. Wang is brought into the Battle Command Center, an international network of politicians, military officers, scientists, and law enforcement agencies concerned about the situation. Some sort of threat external to the scientific community has brought many nations around the world together in the defense of science, an alliance which transcends politics and national ideologies. Wang agrees to help investigate the situation, especially after he sees proof by way of the countdown that something terrifying is actually occurring.

At the same time, he also begins to play the game Three Body, which is based on an actual scientific problem relating to the physics of three bodies, in which no clear pattern or prediction can be ascertained. This leads many, such as Dong, to declare that physics does not exist, and to commit suicide. Wang continues to play the game, interested not only in the science but the strange environment in which the game takes place. Science is clearly important enough to Wang to want to do his best to complete



the game and determine a solution to the three suns that plague the game world, but he is unable to find a solution immediately.

Interestingly enough, Ding comes to refuse to believe in much of science anymore, especially physics, given the pool table accelerator experiments. The long-held contention that science is important, even critical to humanity, is seemingly done away with such issues. Wang, however, is not troubled at all by the ideas that are now emerging about science. Wang works in a scientific field with important practical applications, so it is possible that trouble in theoretical fields of science has, in his mind, no real bearing on his work. At the same time, the physical application of physics through the accelerated pool balls does little to trouble Wang, again perhaps because it has little bearing on his own field, and again perhaps because Wang does not believe that science has the final say on everything. It may be critical to human life, but it is not the only thing that determines human life. The reader should bear this carefully in mind moving forward.

Discussion Question 1

In what ways can extremism be seen in the Cultural Revolution in China in the 1960s? What does this mean for scientists like Ye Wenjie and her father?

Discussion Question 2

Why is Wang contacted to join Battle Command Center? Why does he ultimately decide to join in?

Discussion Question 3

What could help explain the differing reactions between Wang and Ding to the claim that physics does not exist? Do you believe this makes Ding something of a science extremist? Why or why not?

Vocabulary

greenhorns, exuded, fundamental, reactionary, deforestation, meteorically, sequester, deficiencies, machinations, incontrovertible, contemptuously, inscrutable, invariant, catalytic, arduous



Part 2, Chapters 8 – 14

Summary

Part 2, Three Body (continued)

In Chapter 8, Ye Wenjie, Wang cannot stop thinking about the term "Chaotic Era," the three stars, or the idea of having lost the game. Wang then goes to meet Ye Wenjie, Yang Dong's mother. While Ye Wnejie puts away groceries, she allows Wang to go through Yang Dong's old room for clues, knowing why he has come. Yang Dong, though rich, purchased rustic furniture made from tree stumps and branches, which Wang finds odd. He discovers a photo of Yang Dong in front of what appears to him to be a parabolic antenna, and a notebook with the title "Yang Dong's Birch Bark Notebook." Ye Wenjie comes into the room and explains that, as a child, Yang Dong was always anxious to learn even advanced topics. Winjie believes she failed her daughter. because her daughter's life revolved around theories that she came to believe were not true, and then had nothing solid on which to depend. Wang then asks for a place where he can view cosmic microwave backgrounds. Wenjie explains two places in China exist for this, including one in Urumgi run by the Chinese Academy of Science's Space Environment Observation Center, and one in Beijing run by the Chinese Academy of Sciences and Peking University's Joint Center for Astrophysics. Wenjie calls and arranges a visit for Wang with her student, Sha Ruishan. She then gives Wang a gift of ginseng tea, which helps reduce stress and makes Wang nearly cry in gratitude.

In Chapter 9, The Universe Flickers, Wang travels to the National Astronomical Center at the Space Observation Center where Sha Ruishan receives the data transmitted from three satellites –the COBE (Cosmic Background Explorer, launched in 1989); the WMAP (Wilkinson Microwave Anisotropy Probe of 2003); and Planck, launched by the European Space Agency in 2009 – to create a detailed map of the cosmic microwave background. The microwave background consists of cosmic embers, or the remains, of the Big Bang, and changes very slowly over time as the universe expands. Ruishan brings up the data on a screen as Wang, recalling information given to him by Shen, says he believes there will be a flicker in the background around one in the morning. While waiting, Ruishan brings Wang on a tour of the facilities. It is during this time that Ruishan reveals that Ye Wenjie is one of those who served at the supposedly mythical Red Coast Base, and managed to survive the Cultural Revolution. Back at the data collection screen. Ruishan is stunned to see the constant data lines turn into waves. The waves are printed out. To confirm what they are seeing, Ruishan gives Wang 3K glasses, to see the microwave background with his own eyes. Wang promises to reveal the truth of things to Ruishan when the time is right. Wang then heads out on his own to use the glasses to look at the night sky, which glows red and flickers accordingly. Wang suddenly feels very small and suffocated, but also very aware of Creation. He then heads to Saint Joseph's Church at Wangfujing where the three spires of the church point toward the sky. He begins to cry, and feels as though a giant, invisible hand is comforting his heart. Suddenly, Captain Shi Qiang arrives.



In Chapter 10, Da Shi, Shi admits he has been following Wang. They go to a nearby restaurant and order some food and drinks. Wang admits all he has just seen, and asks openly about where existence has come from. Shi says he does not worry about such things, as he is too busy worrying about his family and chasing down criminals each night. Shi orders Wang to drink up. The next morning, Shi and Wang meet up again, during which time Shi reveals he knows relatively little about everything going on. Shi explains that there have been numerous crimes, murders, and suicides surrounding the academic community, all purely for destruction; that the environmental movement has become bold; that films and culture are taking a rustic, return-to-the-good-old-days approach; and that Shi believes someone is working behind the scenes to ruin scientific research. But who, or why, Shi cannot say.

Shi expects to be laughed at as he has been laughed at by other scientists, but Wang believes him because Shi has practical experience that has taught him to piece together clues as a cop. Shi then reveals that there are Battle Command Centers located all around the world, all working in unison with each other. Additionally, applied science – such as nanotechnology – is not being threatened the way fundamental science is. Shi believes it is possible that applied science truly scares "them." Shi encourages Wang to keep at his work, because that will be the best way to hit back. To relax, he encourages Wang to play the game Three Body, which Shi believes is definitely connected to everything.

In Chapter 11, Three Body: Mozi and Fiery Flames, Wang returns to play Three Body. Eons have passed in the game since Wang last played. He discovers an Egyptian-like Aztec pyramid with an astronomical observatory at the top where he meets Mozi, a philosopher, geometer, and engineer who historically emphasized logic and experience during the Warring States Period. Mozi, in the game, explains that several civilizations have risen and fallen since Wang last played. Mozi explains he believes the atmosphere consists of two large spheres, with the inner sphere full of holes, while the outer sphere has one, which result in starlight and sunlight. He also believes the shooting stars to be irrelevant, and that a four-year Stable Era is about to begin. However, the Stable Era brings about a massive, scorching sun that kills everything it touches, including Mozi. The game then announces Civilization 141 is lost, but a new civilization will soon grow. Wang returns to work the next day, feeling better because of the game and the ginseng tea he is drinking. He then visits Ye Wenjie to thank her. Ye Wenjie is very happy to see Wang, and offers to tell him about her time at Red Coast.

In Chapter 12, Red Coast II, the events of the novel return to the past. Ye Wenjie learns in college that, in astrophysics, it is useless to excel at theory without experiential practice. As a result, she teaches herself about radio astronomy, electrical engineering, and computer science. At Red Coast Base, Ye Wenjie begins in maintenance and repair, for it seems the major scientific work of the station is completed, and there seems to be no advanced scientific equipment anywhere. Eventually, Commissar Lei Zhicheng explains that although microwave ovens are a Western luxury plaything, Red Coast is a militarized microwave, seeking to heat up enemy space vessels, destroying them. Two tests on Chinese satellites have been successful. The next day, Wenjie is transferred to Monitoring, which picks up radio transmissions and signals while working



with a computer software system called FORTRAN, designed to keep an eye on enemy spacecraft, operations, and movements. Lei explains Wenjie's academic paper has been very beneficial to them, and hopes Wenjie will continue to advance. Yang Weining, however, has grown cold toward Wenjie. The KH-9 satellite is soon launched to help with monitoring. Ye Wenjie then learns from Yang and Lei the true purpose of Red Coast.

In Chapter 13, Red Coast III, selected documents from the Red Coast Project are presented, including where technological leaps are most likely to occur based on the leap in physics (such as the atom bomb). These include SETI, or the Search for Extra Terrestrial Intelligence (aliens). The Americans, NATO, and the Soviet Union are all investing in the search for alien life in their own ways. The Red Coast documents also detail transmission settings and frequencies for monitoring for alien signals, as well as the transcripts of messages broadcast by the Chinese into space, hoping for interspace cooperation and friendship.

In Chapter 14, Red Coast IV, events return to the present. Ye Weinjie says that any potential contact with alien life would be kept secret from the public, because of the potential negative effect it could have worsening conditions between nations out of a sense of a need for survival. Weinjie says that ultimately, Red Coast officially failed in its attempts to establish contact over 20 years, and was later disbanded. Wenjie reveals that over time, Yang's coldness toward her diminished, and the two married and had a daughter, Dong. Wenjie explains that Yang and Lei were both killed in an accident.

Analysis

As the novel continues, Wang encounters not only Ye Wenjie, but members of the group that has set itself against science. Shen Yufei, herself a scientist, is among those who have seemingly become enemies of science – even though, ironically, they rely on science to demonstrate their power. To demonstrate the power that the group has, the group not only controls the countdown that Wang sees, but causes the very universe itself to flicker by way of the microwave background. As this occurs, it can be discerned that a group using science to tear down the respect for, and faith in science, must have some sort of ulterior motive. Shi supports this theory, and is interested to learn about the flickering of the universe. (He, unlike Wang, is untroubled by it, for he has too many practical endeavors in daily life to worry about such things.)

The experience of the flickering universe causes Wang to feel very small, however. As the reader will recall from earlier, science is not the total summation of Wang's life, nor should it be the total summation of human life in general. Ye Wenjie believes her daughter committed suicide because she was too involved in the theoretical side of science, and too dependent upon science in general. Because Dong was so heavily invested in something that turned out not to be true, she could no longer cope. This makes sense to Wang, who, although a firm believer in science, knows science is not the end-all to life.



This is best illustrated in where Wang heads following the flickering of the universe and his frustration with Three Body – to a Catholic church. Wang draws near, but does not enter the church, a demonstration not of his own faith – he believes that there is a higher power in God, even if he belongs to no organized religion specifically – but of China's own difficult relationship with religion. Under the worst days of the Communists, religious believers were butchered and declared Westerners. Likewise, faith was considered a source of human weakness rather than strength – a thought that has continued to overshadow contemporary China. While religious belief is on the rise in China as evidenced by Wang, China has not embraced or committed to such a path. China in general has drawn near, but not gone into the House of God.

Nevertheless, Wang's belief in a higher power is enough to help steady him when the floor of science is pulled out from under his feet. The reader should also note that the church to which Wang heads – Saint Joseph's – in particular is of symbolic importance, especially to those of the Christian faith. Saint Joseph, husband of Mary, helped guide and protect Mary on the journey to Bethlehem, where Mary gave birth to the Savior, Jesus. In many ways, the guide that Joseph helped to serve as pointed the way toward the truth in Jesus, which in turn manifested itself in salvation. Wang himself is now being swept along on a journey toward truth, from which salvation will be needed. (The reader should also note the three spires of the church that point toward the sky in the greatest moments of Wang's doubt. These three spires symbolize God, Jesus Christ, and the Holy Spirit, and direct Wang upward toward eternal truth.)

The investigation that Wang continues ultimately leads him into the past. He learns of Ye Wenjie's history, from the Cultural Revolution to her days at Red Coast Base. As it is revealed, Red Coast set itself to many different purposes, but was primarily geared toward establishing contact with alien lifeforms. Officially, and according to Ye Wenjie, Red Coast was ultimately closed down because it failed in its mission. However, both Wang and the reader suspect that there is more to the story than what Ye Wenjie has let on. At this particular moment, Wang does not press the matter further because it appears to have no connection to the situation of the scientific community.

Discussion Question 1

What is Wang's reaction to the flickering of the universe? Why does he not fall apart the way Dong seemingly did?

Discussion Question 2

Why does Wang become so invested in the Three Body game? What impact does it have on him? Why?



Discussion Question 3

What does Ye Wenjie reveal to be the true mission of the Red Coast Base? Was the mission successful? How does Wang react to the answer? Why?

Vocabulary

cultivated, cosmic, metaphor, eons, immersed, mysticism, innumerable, indispensable, telemetry, fortuitously, gradualistic, exacerbate



Part 2, Chapters 15 – Part 3, Chapter 21

Summary

Part 2, Three Body (continued)

In Chapter 15, Three Body: Copernicus, Universal Football, and Tri-Solar Day, Wang returns to play Three Body. More time has passed. Wang is now in the European High Middle Ages, where he meets Pope Gregory, Aristotle, Galileo, Leonard da Vinci, and Copernicus. Wang explains their world has three suns, whose gravitational pull affects the others. When the planet revolves around one sun, there is a temporary Stable Period. When the other two suns are involved, there is a Chaotic Period, or worse. These other two suns appear to be shooting stars from a distance. Everyone except da Vinci laughs at this. Da Vinci explains there are records from previous civilizations to support this. Everyone, including Galileo, say Wang and da Vinci should be burned. Suddenly, a Chaotic Period rapidly begins, in which all three suns appear and destroy the civilization, Number 183.

In Chapter 16, The Three Body Problem, Wang travels to Shi Qiang's office, where computer specialist Xu Bingbing from the Information Security Division and Wei Cheng, Shen Yufei's husband are. Cheng says his life is in danger. He explains he has long loved math, logic, and reason. However, Cheng says, he felt empty. After consulting with a Buddhist abbot, Cheng says he decided to find his own peace by creating three spheres in his emptiness, a mathematical realm in his mind. This is similar to the three-body problem of physics. Cheng reveals his own research into the problem of how three bodies affect one another is similar to the Monte Carlo Method, in which he seeks to study motion vectors of each body, always eliminating inferior combinations in an evolutionary-like algorithm. It was through his work in this field, Cheng says, that he met Shen Yufei, who was also working on physics and continues to work with the Frontiers of Science. Since then, Cheng explains his algorithm has uncovered over a hundred stable configurations for the three bodies.

Cheng then reveals that the previous day, an anonymous caller told him to stop his research or he would be killed. Cheng reveals the previous night, his wife threatened to kill him with a gun if he did not cease his research, telling him as well that if he stops his research, he will be a sinner; if he continued it, he would be a savior; and if someone destroyed the human race, then Cheng's actions would be twice as much. Given Shen's possession of an illegal firearm, Shi is able to get a warrant to search the house. As Wang, Cheng, Shi, and other officers travel to the house, Cheng compliments Wang's efforts in Three Body. Cheng explains that the game is not native to China, and that the software quality is uncommonly high. People from all around the world play. At Cheng's house, they discover Shen has been shot to death, while the assassin escapes in a black SUV. As the police give chase, Cheng reveals he had heard his wife and Pan Han arguing in the past about how their Lord is coming, how Pan Han wishes to use the Lord's power against those of the human race who deserve punishment, and whether or



not their commander wanted humanity saved or eliminated, siding with the Redemptionists or Adventists. Cheng Wei then gives his research on a CD to Wang to share with some select people, but says humanity as a whole has reached a point where no one is listening to prayers anymore.

In Chapter 17, Three Body: Newton, Von Neumann, the First Emperor, and Tri-Solar Syzygy, Wang returns to play Three Body. There, he encounters Isaac Newton and Leibniz dueling, with Von Neumann trying to stop the fight. Leibniz runs away. Von Neumann reveals that calculations must be carried out by at least 30 million people, so they are headed to see First Emperor Qin Shi Huan. Wang, Newton, and Von Neumann appear before the Emperor to talk about the problem of the three suns. Three soldiers are used to demonstrate gate arrangements for predictions. These gates can be put into a computing system to determine the movements of the sun. The Emperor agrees, and has 30 million of his troops participate in the gate computing system named Qin 1 in honor of the Emperor for the next 16 months. Suddenly, all three suns appear in a line in the sky – a tri-solar syzygy – making the pull of gravity very, very light. The game then ends, announcing the destruction of Civilization Number 184. Wang suddenly receives a call from a Three Body administrator who asks for profile information and invites Wang to a meeting of Three Body Players.

In Chapter 18, Meet-Up, Wang heads to Yunhe Coffee Shop in Xicheng District for the Three Body player meeting. Six people are present. The organizer then arrives. It is Pan Han. Wang is stunned, and texts this to Shi. All those present talk about how much they enjoy Three Body. Han asks them if they believe Three Body is truly a game. Han then explains the world of Three Body, Trisolaris, exists. The ability of Trisolarans to dehydrate is also real, he explains. While the game borrows from human existence to be relatable to players, the real world of Trisolaris is completely different, except for the three suns. The goal of the game itself, Pan Han explains, is to gather together those with similar ideals. He then asks what those assembled think of the Aztecs. Two argue the Spanish conquistadors were brutal and merciless, while three others argue that at least the Spanish stopped the Aztecs from expanding their empire, because the Aztecs were even worse than the Spanish. When asked his opinion, Wang says he agrees with the three. The other two are then ejected from the meeting, and told they will no longer have access to the game. Pan Han says the Trisolarans, like the Spanish, must come to Earth to rid it of its bad human elements.

In Chapter 19, Three Body: Einstein, the Pendulum Monument, and the Great Rip, Wang returns to the online world of Three Body for the fifth time. The great pyramid has been replaced by the United Nations Headquarters. Outside, playing a violin and speaking about how he has been abandoned by God is Einstein. Einstein explains to Wang that Newton's calculations were fatal because they did not account for induced curvature of the space-time described by Einstein's own theory of general relativity. Out behind the UN building, the assembly members are preparing for the rebuilding of the giant pendulum system as a monument to Trsiolaris, as well as a tombstone for the end of the efforts to get to the bottom of the three-body problem. It is announced that no one will be seeking any more answers because the system is purely chaotic, meaning God has abandoned them to a system that is unintelligible.



Things have become further complicated by the new moon, created during the Great Rip at the destruction of the last civilization when three flying stars froze and fell into the world. It is explained to Wang especially that eleven planets have ceased to exist in the solar system, making Trisolaris a survivor of a hunt-like process. The game then ends in a chapter-like way, with writing declaring that Civilization 192 proved there was no solution to the three-body problem, meaning there is a new mission. That is to find a new home. Suddenly, another line of text appears which says the Three Body servers are being shut down, and the final scene will now play out.

In Chapter 20, Three Body: Expedition, Wang discovers that hundreds of millions of Trisolarians have assembled at the place where the UN Headquarters has now disappeared. Einstein welcomes Wang and announces that the Trisolaran Interstellar Fleet is beginning its expedition. It will take as much as half-a-century to find a new home. The game then ends with text that says the expedition is still underway, and that those who remain true to their promise must attend a meeting of the Earth-Trisolaris Organization.

Part 3, Sunset for Humanity

In Chapter 21, Rebels of Earth, Wang attends the next Three Body meeting, at which many more people are now present, as well as a model of the three-body problem. A member questions whether or not Pan Han had anything to do with Shen's death. He admits he has because he says Shen was a traitor to the Adventists. The member continues on that Pan Han had the obligation to create problems to turn people of Earth away from science, not use their Lord's abilities to gather fame and riches for himself. Pan Han denies all of this, and says he is merely devoted to the cause. He says a rebellion will come which will reveal them all to the world. Ye Wenjie then arrives and shouts that human tyranny must be ended. Ye Wenjie then reveals herself as the Commander of the entire Organization. She charges Pan Han with committing a violation of the Organization's rules. Pan Han says he went to eliminate Wei Cheng on orders of Comrade Evans and the committee, but killed Shen Yufei in self-defense.

Pan Han says the Trisolarans must come to Earth to forcibly solve Earth's problems and transform the human race. Rafael, an Israeli member, says this is not true, that the Adventists actually want humankind destroyed. Pan Han must confirm this, saying it was the dream of Comrade Mike Evans. Ye Wenjie says patching over differences is now no longer possible. She also accuses Pan Han of monopolizing communications with the Lord, but Pan Han explains it is their right as they were the ones to build Second Red Coast Base. Ye Wenjie says the Adventists must be converted or eliminated. A young woman then rushes Pan Han and snaps his neck. Ye Wenjie then sees Wang among the attendees, and welcomes him, saying nanotechnology is one of the first things their Lord wants eliminated from Earth. Ye Wenjie then says she will tell him, and everyone, the story of the rest of Red Coast.



Analysis

As Wang's investigation continues, he, Shi, and the members of Battle Command learn that the scientific community is not merely facing an existential crisis, but is actively being threatened, intimidated, and murdered – such as in the case of Pan Han and Shen Yufei. Wang is also drawn into the group that is behind the Three Body game, which meets at a coffee shop, and at which Pan Han is present to explain some of the background to both the group and the game. It is revealed that the game is based on the real world of Trisolaris, and that the dehydrating people of the game are actually modeled on the real aliens of Trisolaris, the Trisolarans. Pan Han then reveals that the Trisolarans must come to Earth to rid humanity of its extremism.

Here, the author of the novel returns to his thematic point that extremism is dangerous to humanity. As Wang learns, Pan Han does not hold the only extremist position in an extreme group of human beings. It is revealed that Ye Wenjie is actually the commander of the Three Body group (ultimately revealed as the Earth-Trisolaris Movement, or ETM), and that the group in general believes that only the outside force of a Trisolaran invasion can restore and redeem humanity. The reader will recall that the idea of an outside force being a leveler for humankind is something Ye Wenjie has carried with her since the Cultural Revolution decades before.

The extreme position of Ye Wenjie has been warped by competing groups within the ETM itself. The two principal sides, the Adventists and the Redemptionists, are at each other's throats. The Redemptionists agree with Ye Wenjie that humanity is incapable of redeeming itself, and so must be redeemed by the Trisolaran alien race, as though a child has his or her problems sorted out by a parent or an adult. The Adventists believe that humanity is irredeemable, that it is so flawed it can never possibly get on the right track, and so, therefore, must be exterminated. Wang is stunned by this level of extremism – and is stunned yet again when Ye Wenjie has Pan Han summarily executed. There is no moderation or compromise among the members of MTE, Wang realizes.

To Wang, a scientist, so little of what the scientist and pro-science members of MTE are doing makes sense. This includes discovering that MTE is trying to do away with science based on the dictates of the Trisolarans. It can be reasoned that this is because they consider science to be pointless anyway given the crimes of humanity, or because they truly believe they are that flawed as human beings. The reader is reminded of Cheng's assertion that humanity is so flawed that he doubts even God is listening to their prayers anymore. What is also troubling is the suspicion that the Trisolarans may have more in mind than just helping a fellow race of intelligent beings after traveling across space for centuries. At the end of the Three Body game, the mission given to the Trisolaran civilization is clear: find a new home. The Trisolarans may be coming to Earth to stay – or worse.



Discussion Question 1

What factions exist in within the Three Body group, ETM? Why does this seem to be so? Which side appears to have more power? Why?

Discussion Question 2

Why does Wang agree to attend the meetings of the group behind the Three Body game? What important information does he learn about the truth behind the game, and the group? What questions does this information raise? Why?

Discussion Question 3

How is the Three Body group, ETM, consistent with Ye Wenjie's belief that only an outside force can redeem humanity? Why does she believe there is no other way?

Vocabulary

derivation, libertine, algorithm, agility, burly, irreconcilable, anachronistic, quagmire, extravagance, insidious, perturbation, tenaciously



Part 3, Chapters 22 – 28

Summary

In Chapter 22, Red Coast V, the events of the novel return to the past. One of the biggest challenges for Red Coast Base is interference from the sun, with solar activity fluctuating unpredictably. But based on her research of the work of other scientists, including Americans, she began to work through the problem. She began with a triangle setup consisting of the sun, Earth, and Jupiter, and noting that energy takes on different forms as it moves around, reflected from one place to the next – what she comes to call energy mirrors. In other words, the sun amplifies radio waves. Ye Wenjie realizes this means that weak transmissions from Earth could be strengthened by the sun. Denied official permission to try this, Ye Wenjie does so secretly on her own, beginning in the fall of 1971. When there is no response, Ye Wenjie feels let down. However, the transmission from Earth continues to spread throughout the Milky Way.

In Chapter 23, Red Coast VI, the novel continues in the past. Over the next eight years, Ye Wenjie continues her work peacefully. Under the guise of research, she reads foreign works and philosophy. She becomes saddened by the dark side of humanity. Ye Wenjie and Yang get married during this time as well, with Ye Wenjie accepting the proposal out of gratitude for saving her life years before. One night, suddenly, a response message from an alien civilization comes in. The messenger reveals himself to be a pacifist in his own world that warns Ye Wenjie not to answer the message or her planet will be located and conquered. The warning "Do not answer!" is repeated multiple times. Ye Wenjie is both thrilled and stunned. Hating nuclear weapons, deforestation, and human problems, Ye Wenjie responds to the message, saying help is needed to solve humanity's problems.

In Chapter 24, Rebellion, back in the present, Wang asks Ye Wenjie why the Lord is so afraid of nanotechnology. She responds that nanotechnology could help humans escape gravity and increase space construction, such as a stationary space elevator. Wang then asks what comes at the end of the countdown. Ye Wenjie claims she does not know. Suddenly, Shi Qiang and dozens of soldiers set in upon the meeting. Wang is yanked to safety. A young woman raises up one of the metal spheres of the three body problem, and says they are all nuclear bombs. An explosives expert confirms this. Shi, learning the force of the blast can be scattered by actually shooting the bomb, does so. A small explosion follows, but the nuclear bomb does not go off. Gunfire breaks out between the Organization and the soldiers. The injured Shi is taken to the hospital. He communicates with Wang by cell phone, expressing amazement at alien involvement.

In Chapter 25, The Deaths of Lei Zhicheng and Yang Weining, a transcript of an interrogation with Ye Wenjie is presented. Ye Wenjie confesses to killing two people on the afternoon of October 21, 1979 – her husband, Lei, and Base Engineer Yang Weining. Ye Wenjie reveals she got in serious trouble with Lei for what she did with the transmission, but that she knew he merely wanted to be the one to claim credit under



the pretense of helping her to hide her crime. Ye Wenjie reveals that while both Lei and Yang were suspended over the face of the mountain to help repair something, which was expected of officers at the time, she cut through their ropes.

In Chapter 26, No One Repents, the novel returns to the past. No one suspects the deaths of Lei and Yang to be anything other than an accident. A new commander arrives, and Red Coast's security rating is reduced. Locals are no longer to be shot for venturing onto the mountain so long as they stayed outside of the actual base. Among the visitors are anxious children and teens, who want to learn about things like physics. Ye Wenjie then begins to tutor locals. Ye, also pregnant, gives birth to her daughter, which nearly kills Ye Wenjie. Numerous locals donate blood to help save her life. When the base is closed, Ye Wenjie returnes to Tsinghua University. As the Cultural Revolution fades from memory, those who have survived persecution are often restored to something resembling their former lives, including an education minister that Ye Wenjie's mother married. This in turn gives Ye Wenjie's whole family important status. However, Ye Wenjie's new stepfather has no remorse about her father's dead, so Ye Wenije never returns to visit them. Ye Wenije then tracks down three of the four girls responsible for killing her father, now in their thirties. They report their idealism quickly faded when they were sent out to live in the countryside, and are horrified that no one will ever remember them. Ye Wenjie then decides that superior civilization must be brought to Earth from elsewhere.

In Chapter 27, Evans, the novel continues in the past. Ye Wenjie becomes a part of a team seeking a prominent place for a radio astronomy observatory. They encounter an American man named Mike Evans planting trees for the endangered northwestern brown swallow. Evans reveals he has run out of money, and cannot ask his oil-rich billionaire father for any more money. He also reveals he is a failure to his father, who wanted him to follow in the oil business and to believe that everything is secondary to man's appetites. Mike Evans reveals he supports animal rights, putting them on the same plane as human beings. He calls it "Pan-Species Communism." Three years pass. Massive deforestation occurs again in the area in which Mike Evans lives. Evans is beside himself with anger and heartache, saying his father has died and has left him \$4.5-billion. Evans does not know what to do now. When Evans learns of Ye Wenjie's alien contacts, he is very interested.

In Chapter 28, The Second Red Coast Base, the novel continues in the past. Three years go by while Evans works to confirm everything Ye Wenjie has told him about alien contact is true. Evans then reaches out to Ye Wenjie, and brings her to Second Red Coast Base, a floating headquarters on a massive ship at sea. Evans explains he has been in contact with the Trisolarians, and that they are due to arrive on Earth in 450 years or so. Evans tells Ye Wenjie she is to become commander-in-chief of the Earth-Trisolaris Movement, which seeks to end human tyranny. Evans explains he has already been collecting members throughout the world.



Analysis

In this section of the novel, Wang learns much more about the past, especially where it concerns Ye Wenjie. The Earth-Trisolaris Movement was formed from her successful contact with the Trisolaran civilization during the days Red Coast Base was operational. The movement grew as a matter of extremism brought about by those one would least expect. This is not surprising, given that even children in the Cultural Revolution could be the most bloodthirsty. For ETM, one of the main driving forces became the unassuming American environmentalist Mike Evans, who in turn came to believe that humanity had to be eradicated for the Earth to thrive.

What is especially disturbing is that Ye Wenjie has apparently been largely unaffected morally by the Cultural Revolution. Having witnessed acts of extremism against her father, having seen the way extremism transformed her mother and sister, and having endured acts of extremism herself, Ye Wenjie has been blinded in her own extremism because she believes extremism is absolutely necessary to destroy extremism in turn. Ye Wenjie is unable to recognize how heartless she is when she kills Pan Han without question, or when she goads dozens of scientists into suicide and condones violence, threats, and intimidations against countless others. Yet, Ye Wenjie's extremism does not end here.

In order to protect her plan to salvage humanity, Ye Wenjie murders her husband and Lei without any real hesitation at all. In an effort to restore the morality and humanity of humankind, Ye Wenjie has hypocritically given up her own morality and humanity to do so. Even the burnt-out lives of the teenage girls who murdered her father do not deter Ye Wenjie from seeking a path apart from extremism. The remnants of Ye Wenjie's family – a mother who remarried for opportunism – still does not deter Ye Wenjie from extremism. Indeed, such encounters ironically strengthen Ye Wenjie's own extremism.

At the same time, it should also be noted that Mike Evans's own experience with extremism on the part of his father who found nature to be useless except insomuch as it was useful, does not deter him from a path of extremism. He uses his father's fortune to construct a mobile version of Red Coast, on a ship, to encourage the Trisolarans to come to Earth to handle humanity. Evan's pattern of thought can easily be traced: by placing animals on the same plane of moral worth as human life, he makes human beings no more, and no less valuable than animals. But such as animals are subject to human treatment, humans, now indistinguishable to Mike from animals, are subject to the treatment of a nonhuman species.

Discussion Question 1

What is Pan-Species Communism? How does this affect the attitude of Mike Evans toward his fellow human beings? How does this affect Mike Evan's relations with the Trisolarans? Why?



Discussion Question 2

What is Ye Wenjie's past experience with extremism like? How does it affect her present life? Why, despite these experiences, does Ye Wenjie pursue her own form of extremism? Can she be justified in doing so? Why or why not?

Discussion Question 3

Is Mike Evans an extremist on par with Ye Wenjie? Why or why not? Can Mike Evans be considered an extremist at all? Why or why not?

Vocabulary

fluctuated, matrix, feasible, fissile, equanimity, impractical, promulgated



Part 3, Chapters 29 – 35

Summary

In Chapter 29, The Earth-Trisolaris Movement, it is amazing to Ye Wenjie how many people have truly given up on their own kind. Most are from the upper classes, or work in elite fields. Soon, the ETM splits into two movements – the Adventists, who have no hope in humanity; and the Redemptionists, who believe humanity can be changed. Still, belief in the supremacy of the Trisolarian race is spread through the video game ETM develops. A third faction later breaks out, calling themselves Survivors, who intend to live better whatever happens with the alien invasion that is coming in several centuries.

In Chapter 30, Two Protons, the novel returns to the present as Ye Wenjie is interrogated further. She is unable to speak to the messages received from the Trisolarans by the Adventists since the Adventists have kept the messages secret. The interrogator notes that the Trisolarans have not attempted contact in four years, that the Adventists want to destroy the human race, that the Redemptionists have come to worship the aliens, and that the Survivors are looking to do whatever it takes to survive. Ye confirms this, and says she has not ordered her forces to attack Mike Evans's ship, Judgement Day, so as not to take a chance those secret messages might be destroyed or moved. Ye Wenjie notes, however, that the Trisolarans have sent on ahead two protons, which will disable scientific development on Earth for the next 450 years. Wang and Ding Yi, listening in, are stunned.

In Chapter 31, Operation Guzheng, Shi Qiang sits beside Wang at an emergency meeting of the Battle Command Center group, letting Wang know he has been cleansed of radiation from the explosion. General Chang addresses the group at large, saying everyone has already been made aware of the situation, and that the mission of the group is now to secure the secret messages on Judgement Day. All Centers around the world are dedicating themselves to this task, especially how to avoid the messages being erased or moved. Shi recommends running Flying Blade – the intensely sharp, intensely strong nanowire filaments developed by Wang – across a canal as the Judgement Day passes through, slicing up the ship, killing everyone on board, and protecting the messages.

The Gaillard Cut in the Panama Canal is decided upon as the scene of the attack. Wang and U.S. Marine Colonel Stanton travel to Panama where they await on the banks of the canal for the plan to be carried out. When the Judgement Day bears down the canal, the zither of filaments is raised. As the ship passes through, sections are sliced off while a man on deck is cut in half instantly. The ship's engines are cut up, and the ship washes ashore. Soldiers rush in. Three days later, Ye Wenjie is interrogated once more. The interrogator finds it odd that Ye Wenjie, who knows nothing about Trisolaran civilization, thinks it can be salvation for Earth. The interrogator also reveals that Mike Evans is dead from the attack on Judgement Day, and that 28 gigabytes of data has



been recovered. The interrogator then gives Ye Wenjie a copy of the preliminary analysis of the captured data.

In Chapter 32, Trisolaris: The Listener, Ye Wenjie reads the analysis. The report explains that the Trisolarians have long had Listening Posts, to pick up signs of intelligent life in the universe. The listener at Post 1379, listening during a Chaotic Era night, is stunned to finally discover an intelligent message, learning all about Earth and everything going on there. To the listener, this was the confirmation of a long-awaited paradise away from the Eras of Trisolaris. The listener then sent out warning messages to Earth, saying "Do not answer!" because the very things which humans love or know – such as beauty and fear, love and sadness – are opposed by the Trisolaran civilization. The listener's message was discovered by the commanding Princeps, who then confronted the listener saying that the Trisolarans must conquer Earth to survive, and could never share it with humans. As a result of his actions, the listener, and all 6,000 other listeners, were dehydrated and burned. The fleet was then readied for departure to Earth.

In Chapter 33, Trisolaris, Sophon, Ye Wenjie continues to read. More than eight Earth years had passed since the launch of the fleet when the Princeps called for an emergency meeting of all Trisolaran consuls under the Pendulum Monument. The Princeps declared that God was blessing them for Earth responding to the "do not reply" message. The Princeps then explained that humans have the ability to accelerate their progress, meaning by the time the Solaran fleet arrives at Earth, human technology will have surpassed their own. In order to balance against this, the Princeps reveals he has enacted a plan to distance humans from science, to work with Earth traitors, and to use the large proton accelerator they are constructing, called Project Sophon, to transmit two protons to Earth to foul up science.

The Princeps then explained Project Sophon has been designed also to turn a proton into a mini-computer, using nine dimensions folded into two to accomplish the task. Tests yielded filaments falling from the sky, and giant eyes appearing in the sky. At the same time, the Princeps learned of the advanced culture of Earth, and ordered it to be kept away from public consumption because there were too many like Listener 1379 who would rather get along with humans than kill them. Proton research continued well for the Trisolaran scientists, who were able to perfect protons they called "sophons" which, when implemented, gave off chaotic results. This, they realized, would throw all of Earth's science into chaos because it will alter accelerators and energy. As Ye Wenjie finishes the report, the Trisolarans flash a message to all humans: "You're bugs!"

In Chapter 34, Bugs, Wang, Shi Qiang, and Ding Yi gather at Ding Yi's home. Wang and Ding are drunk, believing Earth now has no hope. Shi then brings Wang and Ding to see an area of farmland plagued by locusts. Shi asks them if the technology gap between humans and locusts greater than the technology gap between humans and Trisolarans. Nothing humans have done have gotten rid of the locusts for good. The Trisolarans have forgotten this fact, Shi explains. Ding and Wang are heartened by this.



In Chapter 35, The Ruins, Ye Wenjie, despite her age, climbs the ruins of Red Coast. She watches the sunset, believing it is humanity's sunset, and knowing it is her own. She then dies, presumably by suicide.

Analysis

As the novel comes to a conclusion, the dangers of extremism manifest themselves in the coming Trisolaran invasion. As Ye Wenjie learns, the Trisolarans have no interest in helping humanity solve its problems, and have no interest even in conquering humanity because of its moral flaws, but have every interest in conquering and using Earth for their own purposes. Ye Wenjie's extremism has resulted in the sunset of the human species. Efforts to redeem humanity have led to its impending destruction, thanks to Mike Evans and the extremist element of the already-extreme group at large. Here, the author's contention that extremism is a danger to humanity is literally played out in the coming destruction. Mike Evans has gotten exactly what he wanted: the Trisolarans consider humans nothing more than bugs to be squashed.

There is a moment of irony – and perhaps even hypocrisy – for Ye Wenjie when she is confronted by the Interrogator. Ye Wenjie has made the nonscientific assumption as a scientist that a far more technologically-advanced alien race must automatically also be far advanced morally – something which turns out to be completely untrue. In seeking a moral reawakening for humanity, Ye Wenjie has abandoned her own morality, which she believed had always kept her distinct from everyone else. Yet, the irony here is that she is now in the same boat as humankind at large. She may have been distinguished before among people, but now she is merely one bug among many to the Trisolarans.

In another point of irony, Ye Wenjie's hope that humanity would be brought together by an external reason, turns out to be true but for an entirely wrong reason. The Battle Command Centers – involving not only American and Chinese but British and various other global forces – have united the nations of the world against a common enemy, rather than because of their shared humanity. The coming together is now not for moral redemption, but existential survival. The Trisolaran broadcast calling all of humankind "bugs" has ensured this.

At first, Wang and others are devastated by the understanding that humanity will eventually be forced to confront an invasion from the Trisolarans, which they will probably be unable to beat back. Wang feels no more valuable than a bug, especially because human science has been compromised. Yet, Wang has fallen into the same trap as others before him in believing that science is the pinnacle of human existence. It takes the very practical, very gruff Shi to remind Wang that, after thousands of years and technological development, human beings haven't been able to conquer the insect world. Humans still may yet survive as a species. However, Ye Wenjie does not agree. She believes humanity has reached its sunset – and it appears her own life ends in the closing lines of the novel. Whether this is by choice or forced is left uncertain, just as is the eventual fate of humankind.



Discussion Question 1

What is Ye Wenjie's response to the interrogator who questions her unscientific approach to contacting the Trisolarans? Why?

Discussion Question 2

In what ways does Ye Wenjie's contact of aliens uphold the philosophy she developed toward humanity during the Cultural Revolution? In what ways does contact with the aliens negate her philosophy? Overall, are her goals upheld? Why or why not?

Discussion Question 3

How is Shi able to demonstrate that humanity is not necessarily doomed? Why is Shi the one to do this?

Vocabulary

zither, self-interpreting, humanoid, princeps, magnificently, incandescent, depravity



Characters

Wang

Wang Miao is a nanomaterials researcher based in Beijing, where he lives with his wife and son, and where he has most recently developed a razor-sharp wire from nanomaterial. Wang agrees to join the Battle Command Center to help an international coalition determine who is targeting the scientific community, and why.

Wang is generally able to stay above the doubts that have plagued scientists because Wang's own work is largely practical, because Wang does not believe science is the end-all to life, and because Wang accepts God must exist.

Wang's nanowire is used in a Battle Command operation to bring down Red Coast II, which in turn helps Battle Command to decipher the true intentions of the Trisolarians. Upon learning of the probable fate of mankind by the Trisolarians, Wang falls into a drunken depression, but his newfound friend in Shi manages to lift his spirits as the novel ends.

Ye Wenjie

Ye Wenjie is an astrophysicist, daughter of Ye Zhetai and Shao Lin, and mother of Yang Dong. Through seeing her mother turn, her father killed, the environment destroyed, and suffering herself from the extremism of the Cultural Revolution, Ye Wenjie comes to believe that only a force outside of humanity can save and morally restore humankind, doing away with extremism in the process.

When Ye Wenjie establishes contact with the Trisolarans working at Red Coast, she herself becomes an extremist, seeking alien invasion to forcibly redeem humanity. She meets and befriends Mike Evans, who forms the Earth-Trisolaran Movement, of which Ye Wenjie is made leader. Ye Wenjie will do whatever is necessary to ensure the arrival of the Trisolarans, including murdering her own husband and sanctioning tactics that lead to the death of her daughter.

At the end of the novel, Ye Wenjie learns that the Trisolarans are bent on conquering, rather than saving humanity. Whether by her own will or by force, she apparently dies at the end of the novel.

Shi

Shi Qiang is a military veteran-turned-police detective who lives in Beijing with his wife and children. Shi is gruff and practical, has little time for science and philosophy, and spearheads the law enforcement aspect of Battle Command. He befriends Wang as the investigation unfolds, and leads the sting operation on ETM. There, he risks his life to



short-detonate a nuclear bomb, miraculously surviving the blast. It is Shi who later gives Wang hope when the true intent of the Trisolarans is discovered by reminding Wang that bugs have not been beaten yet by humans.

Chang

Chang Weisi is a Major General in the Chinese People's Liberation Army. He is in command of Battle Command Center Beijing, and coordinates with other Centers throughout the world. In Beijing, Chang oversees his Battle Command's efforts to confront and take down the ETM. Chang is the former commander of Shi, and encourages Shi in his very practical work to bring down the ETM.

Shen Yufei

Shen Yufei is a Chinese-Japanese scientist, a member of the ETM, and the person who first exposes Wang to the game Three Body. Shen Yufei becomes the pointwoman who frequently uses threats, fear, and intimidation to try to prevent Wang from continuing scientific practice. Shen Yufei attempts to do the same thing to her own husband, but is later killed by Pan Han presumably because she is not extreme enough, though Pan Han says her killing was a matter of self-defense.

Pan Han

Pan Han is an extremist among extremists in the group Earth-Transolaris Movement. Pan Han is an Adventist, meaning he hopes that the Trisolarans come to Earth not to save mankind, but to destroy them. Pan Han is willing to do whatever he must to ensure this end, such as killing his fellow ETM members, including Shen Yufei. Pan Han is ultimately ordered killed by Ye Wenjie.

Mike Evans

Mike Evans is an American environmental extremist who has come to China to plant trees and protect endangered species, and who believes animals are worth just as much, if not more, than human beings. When Mike learns of the Trisolaran contact through Ye Wenjie, he uses his oil inheritance to build a massive ship, Red Coast II, nicknamed Judgement Day, to continue contact with the Trisolarans. Mike Evans becomes the leading figure in the Adventist movement, wanting the Trisolarans to eradicate human beings from the planet.

Colonel Stanton

Colonel Stanton is an American officer in the U.S. Marine Corps. He is one of the members of Battle Command Center Beijing, and commands the Panama Canal



operation. He oversees the successful destruction of Judgement Day, and the retrieval of its secret communiques with the Trisolaran government.

The Princeps

The Princeps is one of the leaders of the Trisolaran civilization. The Princeps advocates the eradication of humankind so that Earth can be stolen and used as a stable home for the future of the Trisolaran race. He also oversees Project Sophon, which sends alien protons to Earth to disrupt all aspects of scientific practice and advancement.

Ding Yi

Ding Yi is a theoretical physicist, and the boyfriend of Yang Dong. Ding Yi is devastated by the death of Yang Dong, but helped through the loss by his friendship with Wang. Ying Di is later traumatized to discover the coming Trisolaran invasion, but is given hope by Shi who explains that survival is not impossible.



Symbols and Symbolism

Radio astronomy equipment

Ye Wenjie believes Radio astronomy equipment symbolizes hope for help with humanities problem, but it ultimately spells doom for humanity as it tells the Trisolarans where to find Earth.

Radio astronomy equipment is used by Ye Wenjie in her work as an astrophysicist. The equipment, which consists of a massive radio dish, towers, and transmission and monitoring equipment, is kept under careful lock and key at the Red Coast Base, where Ye Wenjie uses the equipment to work. Several years into broadcasting transmissions, Ye Wenjie receives a response from the Trisolaris civilization, which she in turn responds to, allowing the Trisolarans to trace Earth's coordinates and set a course for the planet.

Pool balls

Pool balls are used not only in games of pool, but in the demonstration of a practical point that physics does not exist. Ding Yi plays a round of pool with Wang at his apartment in the novel, during which time he speaks about physics. There are three energy-accelerated pool tables in the world, wherein when a pool ball is struck, something different happens every time. This means that what is perceived to be physics does not exist.

Three Body

Three Body - threebody.net- is an online computer game created by the Earth-Trisolaris Movement to expose players not only to the problems faced by Trisolarans, but to the idea that physics does not exist. In the game, a player is given the ability to determine and predict solar movements of three suns to ensure the survival of a civilization. Yet, each time a prediction is set, it fails. It fails because the three bodies of the three suns exert chaotic gravitational pull on one another, and Trisolaris, meaning that physics does not exist.

Mini nuclear bomb

A mini nuclear bomb in the shape of a silver sphere is wielded by a radical in the ETM when Shi and his forces raid the ETM meeting at which Wang is present. The radical woman threatens to blow everyone up, but Shi is unconcerned. Learning from an expert that shooting the bomb will avoid a major detonation, but ensure a small explosion, Shi shoots the bomb. It explodes, killing several and wounding many more. Fortunately, the blast is relatively small, and harms no one else.



Nanowire

Nanowire is a kind of nanomaterial developed by Wang and his team which is razor sharp and extremely strong. It is described as strong enough to pick up or slice through a car with a single fiber of the material. The nanowire is used in a trap for the Judgement Day as it passes through the Panama Canal. Strands are raised as the Judgement Day passes through, slicing the ship into sections and killing everyone on board, thus enabling the safe recovery of secret correspondence with the Trisolarans.

Inheritance

An inheritance of \$4.5 billion is received by Mike Evans from his father, an oil company magnate. The inheritance is used by Mike Evans to purchase a massive ship and to transform it into Red Coast II, or Judgement Day. The money also helps Mike to fund the ETM group, and to create the online computer game Three Body.

Sophons

Sophons are Trisolaran modified protons that do not exist on Earth, which fold several dimensions into two and which, upon release, will cause chaos in scientific results and scientific observation. The protons are fired at earth by an accelerator, which will allow the protons to arrive long ahead of the Interstellar Fleet. The protons will destroy any hope of scientific progress, to ensure that the Trisolarans remain technologically ahead of humanity even though they are not due to arrive for another 450 years.

Secret Trisolaran messages

Secret Trisolaran messages are exchanged between Trisolaris and the ETM Adventists aboard the Judgement Day. These messages detail the truth about the Trisolaran interest in Earth. The Trisolarans do not wish to save humanity, but to destroy it and to seed new Trisolaran life on Earth. The messages are retrieved during the Panama Canal operation following the slicing apart of the Judgement Day.

Trisolaran Interstellar Fleet

The Trisolaran Interstellar Fleet is launched from Trisolaris, and will be the initial wave of Trisolaran invasion that will wrest control of Earth away from humankind. The Trisolaran Interstellar Fleet is not prepared for such a long trip, and it is expected that many ships will be destroyed or lost along the way. Still, the Fleet is determined to succeed in their mission so that Trisolarans might have a new home.



Bug message

Trisolarans announces their existence and their intentions by broadcasting a message to Earth, calling all humans bugs, which symbolizes how humans appear to the Trisolarans. This sends many people into an existentialist crisis, including Ding and Wang. Yet, it is Shi who reminds them that technologically-superior human beings have never been able to overcome the insect world on Earth, so human beings have every chance of surviving the technologically-superior Trisolarans.



Settings

Red Coast Base

Red Coast Base, known colloquially as Radar Point, is a Chinese military scientist installation located on a mountaintop in the Greater Kinghan Mountains. Red Coast Base has as its primary, but classified mission, the search for extra-terrestrial life. Ye Wenjie spends decades isolated at Red Coast with her husband in pursuit of such alien contact. Ye Wenjie succeeds, but in order to keep the truth to herself, she kills her husband and the base commander. The mission is officially declared a failure, and the base itself is later shut down. At the end of the novel, Ye Wenjie returns to Red Coast to contemplate the sunset of humanity. It is believed she dies there, though whether by her own hand or by force is not clear.

Red Coast II

Red Coast II, known officially as Judgement Day, is a massive ship purchased and outfitted by Mike Evans using inheritance money to continue Ye Wenjie's work from Red Coast Base to keep in touch with the Trisolarans. Red Coast II becomes the haven for the most radical of the ETM extremists, who want to see mankind eliminated by the Trisolarans. They store secret communications with the Trisolarans on board Red Coast II, with the ship itself later being destroyed in the Panama Canal by way of nanowires.

Beijing

Beijing is a major city in China, and is home to Wang, his family, Shi and his family, Ye Wenjie, and many other characters in the novel. It is also home to Battle Command Center Beijing, where General Chang directs operations against the ETM. It is in Beijing that the tactics of Ye Wenjie and the ETM lead to the deaths of countless scientists, by suicide or by force. It is in Beijing that a large part of the ETM is finally broken apart in a raid led by Shi. It is also in Beijing that Ye Wenjie is interrogated about her knowledge of the ETM's activities, and its entreaties with the Trisolarans.

Earth

Earth is the home of humankind, and home to billions of people with tremendous intelligence, culture, and technology. Earth is gravitationally stable, with very predictable solar cycles, seasons, and physics. Others, like the ETM, see Earth as horribly corrupted as a result of humans, due to such things as political extremism and misuse of the environment. This leads the ETM to entreat the Trisolarans to come to Earth to fix all their problems. However, the Trisolarans see Earth as a new, stable home for their civilization to flourish. Earth thus becomes the target of the Trisolaran Interstellar Fleet.



Trisolaris

Trisolaris is a distant planet which harbors intelligent, advanced, and utterly brutal life. The Trisolaran civilization is technologically advanced, but has been forced to endure the brutal, chaotic conditions of living on a planet hounded by three suns. As a result, Trisolarans must live in incredibly strong buildings to survive Chaotic Eras in which conditions are made inhospitable by scorching sunlight. Trisolaris is ruled by a planetwide governing council of consuls, overseen by a Precepts. Seeking a new, stable home, the Trisolarans are thrilled to learn about life on Earth, as well as the planet's location. Though the journey will take at least 450 years, the Trisolaran Interstellar Fleet is launched toward Earth in order to conquer the planet and exterminate the human race.



Themes and Motifs

Extremism is dangerous in general, and dangerous to the human race in particular

Extremism is dangerous in general, and dangerous to the human race in particular in Cixin Liu's novel "The Three-Body Problem." Extremism – essentially an attitude of fanatical devotion to a cause, person, place, idea, etc. – is rampant throughout Liu's novel. Various forms of extremism exist, including extremism against extremism – and all ultimately prove dangerous not only in general, but to the human race in particular.

When the novel begins, the reader is introduced to the brutality of the Chinese Communist Cultural Revolution of the mid-to-late 1960s. Factions with the Communist movement sought to demonstrate that they were the most radical and loyal to the Communist cause, and were quick to harm, torture, imprison, and kill others who showed even the slightest symptoms of anything other than radicalism. Ye Wenjie firsthand sees her mother transformed by such extremism, coming to sell out Ye Wenjie's own father. Ye Wenjie witnesses the brutal death of her father, carried out by four teenage girls and their uniform belts.

Ye Wenjie is later forcibly conscripted to assist the Communist government in deforestation, which breaks Ye Wenjie's heart. Communism takes the extreme position that nature is only as good as it is useful to progress, which in turn causes Ye Wenjie to believe that mankind needs a moral awakening, and that his moral awakening can only occur by an external force. She is joined in these sentiments by American environmental extremist Mike Evans, who believes animals have the same moral worth as human beings, ultimately comes to find that human beings are worth less than animals, and are too corrupt to be saved. Whereas Ye Wenjie takes the extremist position that only an alien civilization can save humanity, Mike Evans comes to believe that aliens must actually destroy humankind.

Compared to Mike Evans, Ye Wenjie appears to have a less extreme position, but her position is still very extreme. In order to ensure the arrival of the Trisolarans, Ye Wenjie murders her own husband and base commander, sanctions tactics that lead to suicide and murder (including the suicide of her own daughter), and is not afraid to condone threats, fear, and intimidation to achieve her ends of breaking down the scientific machine in China. Ironically, Ye Wenjie's extremism blinds her to the fact that the Trisolarans are only using her to destroy mankind, yet another extremist position. Ye Wenjie's determination to fight extremism with extremism to save humanity has led to the impending doom of humanity.



Humanity is too flawed to redeem itself

Humanity is too flawed to redeem itself, according to certain characters in Cixin Liu's novel "The Three-Body Problem." While some characters say humanity is too flawed to redeem itself, others say it is irredeemable altogether. Both conceptions of humanity ultimately lead to the enticing of the Trisolaran race to invade Earth under the pretense that they will reform humanity.

Ye Wenjie is the predominant character who has lost faith in the human race. This comes as a result of witnessing what the horrors of Communism have done to China, and to her family in particular. The extremism common in Communism has led to the deaths of her sister and father, and the snapping of her mother into a bloodthirsty fanatic. The political crimes she herself is accused of (writing a pro-environment letter) only add to her conception that humanity has become evil. Likewise, the disdain that Communism holds for nature – by way of mass deforestation, for example – is another immoral extremism that Ye Wenjie cannot tolerate.

It is while considering all these problems that Ye Wenjie comes to believe that only a force far more powerful and outside the human race will ever cause unity and a moral redemption. Ye Wenjie believes that humanity has corrupted itself too much to be able to handle restoring itself. Mike Evans comes to believe that humanity is incapable of redeeming itself as well, but goes one step further. Evans also believes that humanity cannot be redeemed, either by itself or by an external force. In other words, Evans believes that humanity has no hope, and so humankind must be exterminated.

Ironically, Mike Evans believes that even people like Ye Wenjie, Wang – and Mike himself – are too far gone to possibly be redeemed. He goes along with Ye Wenjie's plan to bring the Trisolarans to Earth. But whereas Ye Wenjie wants the Trisolaran aliens to reform humankind, Mike Evans wants the Trisolaran aliens to destroy humankind. Yet even when Ye Wenjie learns the truth about the real reasons the Trisolarans have for coming to Earth, she is largely unconcerned. This is perhaps because all along, she secretly held the same belief as Mike Evans.

Science, though crucial to humankind, is not the summation of humanity

Science, though crucial to humankind, is not the summation of humanity in Cixin Liu's novel "The Three-Body Problem." Science and scientific endeavor are major drivers of medicine, technology, and human wellness, which in turn benefit humankind in tremendous ways. Many believe that the sum of human existence is its scientific knowledge and scientific capacity, but others believe differently.

The Earth-Trisolaris Movement seeks to undermine human faith in science and scientific advancement in order to give the Trisolarans an edge over humankind when the Trisolaran Interstellar Fleet arrives to invade Earth. On Earth, science is seen as



something stable and predictable – unlike on Trisolaris. Physics on Earth do not apply to the environment of Trisolaris, with its three suns. When scientists begin to learn that their absolute faith in science has been misplaced because of reasons like physics not existing, they are beside themselves with horror. For someone like Dong, who has invested everything she is into science, the result is catastrophic: she commits suicide.

However, for someone like Wang, who places great faith, but not all his faith in science, the undermining of the scientific field is not his undoing. Because Wang's scientific work has to do primarily with practical application – such as with the nanowire he develops – he is less concerned that scientists who work primarily in theory. At the same time, Wang accepts the existence of God, and knows that science is not all there is to life. When Wang sees the universe flicker, he turns to God for comfort.

Yet, when Wang and Ding learn that the Trisolarans are not only seeking to undermine scientific advancement by the work of the ETM, but through sophons, they are devastated. They believe that humanity is now in its twilight years, and will never stand a chance against the Trisolarans. It is as if humankind has become the bugs that the Trisolarans have labeled them as. Yet, as Shi reminds Wang and Ding, mankind has not been able to subdue the insect world on Earth, so humankind will find ways to avoid being subdued by the Trisolarans.

Only an external threat will unite humankind

Only an external threat will unite humankind in Cixin Liu's novel "The Three-Body Problem." This sentiment, considered by Ye Wenjie while working in deforestation in the 1960s, turns out to be the case many years later. Ye Wenjie hopes that such a threat will not only unite, but redeem humanity – but what happens is not as expected.

The Earth-Trisolaris Movement – in which alien help is sought to address the problems of humankind – gains numerous followers and financial backers, including Mike Evans. This gathering consists of people from all over the world united in a common movement: to do something about the depravity of man. Unfortunately, the method by which the group seeks to handle the evils of mankind is vastly different. Ye Wenjie wants humans forcibly redeemed, while Mike Evans wants humanity eradicated.

Given the crisis that erupts in the global scientific community, leaders from the nations of the world – including America, China, and Great Britain – come together in Battle Command Centers. There, the united powers of the world seek to determine what is causing such violence and death in the scientific field. When the ETM's operations on Judgement Day are discovered, an American-led operation consisting of a multinational force is set up in Panama to destroy the ship and salvage secret transmissions to the Trisolarans.

The greatest cause for uniting comes at the end of the novel. The Trisolarans announce both their existence and their intentions by way of the broadcast message, "You're bugs!" In other words, mankind is considered little more than an insect to the Trisolarans



– bugs which will be squashed. In their darkest moment, people from around the world begin to rally together to do what they can to prepare for the invasion. Although it is still 450 years away, there is no time to waste. Even humankind at the local level unites in ways never before – such as when the practical, no-nonsense Shi lifts the spirits of the scientific Wang and Ding.

No form of advanced, intelligent life is necessarily moral

Cixin Liu argues that no form of advanced, intelligent life is necessarily moral in his novel "The Three-Body Problem." In the novel, two forms of life, or races, and three groups are presented to the reader. All three groups (with two groups being from one race) are highly intelligent, technologically advanced, and morally flawed.

Humans are first presented in the days of the Cultural Revolution. Despite their technologically advanced state, the Chinese Communists were utterly brutal. Academics that did not stand in line with Communist ideology were often killed, as in the case of Ye Wenjie's father. Others, like Ye Wenjie herself, who supported ideas such as environmentalism, were suppressed, oftentimes violently. The Communist conception of the Western world at large was crude and dismissive, such as the declaration that microwave ovens were Western luxury playthings, and that Westerners were weak and worthy of being crushed. Despite the ability to contact alien life through Red Coast Base, the Communists had no morality in their governance.

Decades later, the highly advanced Earth-Trisolaris Movement – complete with their own ship and technology capable of contacting Trisolaris itself – has come to seek to undermine the scientific community to make invasion easier. Despite the highly advanced nature of human technology at this point, the ETMs are no more moral than humankind at large. The ETMs are violent, relying on threats, fear, intimidation, encouraged-suicide, and murder to achieve their ends. The have become the very extremists they hate, and are thus deeply morally flawed. Their technological status is not guarantee of their morality.

The second race, the Trisolarans, are presented as a civilization that is highly advanced with tremendous technological prowess. Ye Wenjie makes the very unscientific assumption – based on zero evidence – that such prowess must necessarily mean an advanced degree of morality. As such, she invites the Trisolarans to come to Earth. And, as it turns out, Ye Wenjie is completely wrong. The Trisolarans do not desire to help humanity, but to destroy humanity and colonize Earth. Those who have moral qualms about killing humans are themselves immorally killed in the name of the greater good. Like the Communists and the ETM, the technological advancement of the Trisolarans has no bearing on their moral nature whatsoever.



Styles

Point of View

Cixin Liu tells his novel "The Three-Body Problem" in the third-person, limited omniscient narrative mode. This is done for at least two reasons. First, the sheer scope of Liu's novel – moving across not only decades, but great distances between Earth and Trisolaris – is made accessible by a single, constant narrative voice that does not change even when events, settings, and characters do. A single, story-unifying voice brings the reader from the darkest days of the Cultural Revolution in China to Beijing of the 2010s to the highly advanced Trisolaran civilization lightyears away. Second, the limited-omniscient perspective of the narrator – withholding important information until later in the novel – creates a sense of both mystery and desperation as Wang and others race against the clock first to save the scientific community, and then humanity at large from the Trisolarans. This also creates a realistic atmosphere, as knowledge is something which must be sought and learned, and is not always readily available. This is certainly the case when it comes to the true intent of the most extreme members of ETM, and the true plans of the Trisolarans to conquer Earth.

Language and Meaning

Ken Liu translates Cixin Liu's novel "The Three-Body Problem" into language that is simple and straightforward. This is done for at least two primary reasons. The first is the tremendous scope of the novel, which follows events across decades and generations, and across great distances that range from China to Panama to the reaches of space. The simple language allows for a brisk pace, and helps to undergird the sense of desperation accounted for by the limited-omniscience of the narrator: time is of the essence. The second reason is the massive amount of scientific information necessary to convey to readers to make the plot of the novel plausible. Because most readers will have only a general understanding of science – everything from astrophysics to nanotechnology – Liu and Liu break otherwise difficult concepts, ideas, theories, and laws into easy to understand language. The problem of three bodies and energy amplification become readily grasped by readers, which in turn help to explain why the Trisolarans wish to colonize Earth, and how humankind is able to transmit a radio signal strong enough to the Trisolarans in the first place.

Structure

Cixin Liu divides his novel "The Three-Body Problem" into three parts, with each part being subdivided into 35 consecutive chapters numbered 1 to 35. Each part of the novel deals with a major part of the plot, while individual chapters deal with events and situations pertaining to those major parts of the plot. Part 1, Silent Spring, deals with the events of the Cultural Revolution, Ye Wenjie's traumatic experiences during the period,



and her understanding that humanity needs to be reformed by an external force. Part 2, Three Body, leaps ahead decades and deals with the introduction of Wang to the three-body problem in physics, the undermining of the scientific community, and contact and encouragement of the Trisolaran civilization. Part 3, Sunset for Humanity, deals with fallout from knowledge of the truth behind the contacting of the Trisolarans, and the true intentions of the Trisolarans. Throughout the three parts, several chapters, all bearing the subtitle "Red Coast," recount events of the past described by Ye Wenjie, who explains her life at Red Coast and in contacting the aliens.



Quotes

I can tell how you're feeling. The two of us are the only ones who feel this way. -- Bai Mulin (Chapter 2)

Importance: Following the factional wars of the mid-1960s, Ye Wenjie is drafted into the Inner Mongolia Production and Construction Corps, where she is forced to cut down trees. Ye Wenjie does not like the mass deforestation going on, just as she is not overly thrilled with the Revolution. She is joined in her sadness over deforestation by Bai Mulin. Bai and Ye Wenjie are very rare individuals who must keep their sadness a secret, or they will be considered pro-Western and reactionary to progress.

To achieve moral awakening required a force outside the human race." -- Narrator (Chapter 2)

Importance: Here, the narrator reflects on Ye Wenjie's consideration of the book Silent Spring by Rachel Carson, which deeply troubles her based on the deforestation of the Communists. Ye Wenjie is not opposed to progress, but is opposed to the devastation of the land to achieve it. Ye Wenjie's consideration that only a moral awakening caused by something outside the human race could be enough to change things for the better is an omen for the alien outreach the Chinese will attempt in the coming chapters.

Then there's no choice but to use her.

-- Yang Weining (Chapter 3)

Importance: Just as Ye Wenjie believes she is about to die, she is saved by Yang Weining and Lei Zhicheng of the Red Coast Base. They have saved her life to compel her, based on her knowledge and education, to cooperate with their secret project. No one in the military has Ye Wenjie's qualifications, and the project's operators cannot risk raising questions by conducting an extensive search outside the army. Likewise, the project needs someone who can remain on base for an extended period of time. Le Wenjie has such potential.

It means that laws of physics that could be applied anywhere in the universe do not exist, which means that physics... also does not exist.

-- Ding Yi (Chapter 5)

Importance: After Wang is taken in by Chang to determine the reason for so many scientists committing suicide, Wang meets with Ding. Ding uses a game of pool to demonstrate the believed nature of physics: each time a ball is hit, it moves and goes into a hole. But when available energy is increased by an accelerator, the balls never behave the same twice. This means there is no identifiable law as to how they behave as they do, meaning that physics does not exist. This is stunning to Wang, and will be of immense importance in coming chapters.



Everything that's happening is coordinated by someone behind the scenes with one goal: to completely ruin scientific research.

-- Shi Qiang (Chapter 10)

Importance: After Wang watches the universe flicker, and after he has something akin to a crisis bringing him toward faith, he meets with Shi. Shi explains he knows relatively little about what is going on, but notes that something is indeed happening behind the scenes. Crimes, murders, and suicides are plaguing the scientific community while environmentalists are becoming bold and film and culture are advocating a return to the good old rustic days of the past. Shi believes someone is trying to destroy the scientific field. But who, or why, he cannot say.

He had told Ye that to do astrophysics research, it was useless to excel at theory without knowledge of experimental methods and observational skills – at least, that was true in China.

-- Narrator (Chapter 12)

Importance: When Ye first goes to work for Red Coast II, she reflects on her time in college. Among the things she remembers is how she came to accept and believe in the idea that practical experience in science is important in addition to theoretical knowledge. This becomes the case not only in her work, but in her time she spends at Red Coast II. Her skills in radio astronomy, electrical engineering, and computer science will be very important. This is because she will be helping to seek out alien life in the galaxy.

Human society is incapable of self-improvement, and we need the intervention of an outside force.

-- Pan Han (Chapter 18)

Importance: Pan Han reveals the world of Trisolaris in the game Three Body is real. He explains that the Trisolarans are a real alien race who have to deal with three suns. He also contends the Trisolarans must come to Earth to rid it of the bad people there are. This is unnerving to Wang, who realizes that Pan Han is very dangerous.

The new goal is: Head for the stars; find a new home.

-- Three Body game text (Chapter 20)

Importance: In the Three Body game, Wang discovers that there is no solution to the three-body problem. This leads the game to explain that a new home is necessary. This will become the mission of the player – but also the mission of the Trisolaran aliens who must leave their homes. As Wang will soon learn, this isn't only a game.

Human society can no longer rely on its own power to restrain its madness. Therefore, we ask our Lord to come to this world, and with its power, forcefully watch over us and transform us, so as to create a brand new, perfect human civilization.

-- Pan Han (Chapter 21)



Importance: During the largest meeting of the Organization yet, Pan Han explains the official position of the Adventist faction. They believe humanity is deeply flawed and has committed enough horror to be unable to correct the problem on their own. As a result, they believe the aliens of Trisolar must come to Earth to forcibly fix these problems, and forcibly change humankind. However, this is only the official position of the Adventists. In reality, they want the human race exterminated.

Why do you have such hope for it, thinking it can reform and perfect human society? -- Interrogator (Chapter 31)

Importance: The interrogator questions Ye Wenjie about her knowledge of the Trisolaran civilization. She knows nothing about them, but imagines that anyone with the advanced technology to fly through space must also have an advanced morality. The interrogator finds this highly assumptive and unscientific for a scientist to conclude. The Interrogator then hands Ye Wenjie an analysis report of the data gathered from the attack on Judgement Day, revealing disturbing truths about the Trisolarans.

You're bugs!

-- The Trisolarans (Chapter 33)

Importance: As the Trisolarans travel toward Earth, the reality of their mission becomes clear. They are not coming to help Earth, but to conquer it. Their consideration of humans as nothing more than an inferior species is summed up by their first message to all humans on the planet, that they are nothing more than bugs.

Is the technological gap between humans and Trisolarans greater than the one between locusts and humans?

-- Shi (Chapter 34)

Importance: Wang and Ding lose hope and heart when they believe the Trisolarans have outmatched them technologically, and outwitted them as a species. Shi brings Shi and Ding to see a wheat field plagued by locusts and asks them who has the upper hand. Humans have been unable to get rid of locusts for thousands of years, no matter how advanced human technology has become. While bugs may be beaten back or temporarily sent away, they have never been defeated.