# Combination of Science and Myth in Liu Cixin's Short Stories

# —— Taking The 'Angel Age' and 'Taking Care of the World' as Example

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#### Abstract:

Liu Cixin is the first Chinese science-fiction writer to win the Hugo Award. Since the release of the film of the same name adapted from his novel the Wandering Earth in 2019, the academic research on his works has climbed to a peak. But relatively few studies have been conducted on his short stories other than the Wandering Earth. This paper aims to explore the characteristics of the combination of science and mythology in Liu's short stories through the two works of 'Angel Age' and 'Taking Care of the World '. This paper argues that the characters and things in these two works have characteristics. Therefore, the word frequency statistics of the words related to science and mythology are carried out. And mythological archetypes are analysed for characters and things characterised by myths. Based on the analysis of the work, this paper summarises the three main ways in which science and myth are combined in Liu's work, including 'Myth Scientize', 'Mythologizing Science' and 'Fusion Construction of Science and Myth'. Through in-depth analysis of the combination of science and myth in Liu's short stories, this paper reveals the 'Liu Cixinstyle 'of science fiction writing and provides new insights into Liu's science fiction works.

**Keywords:** Liu Cixin; scientific myth; Angel Age; Taking Care of the World.

# 1. Introduction

Science fiction has grown rapidly since its creation in the 19th century. To this day it has become an integral part of the literary landscape. In recent years, Liu Cixin's science fiction has become the focus of attention of scholars in China and abroad. Many scholars have examined the scientific and mythological narratives in his works. He Jie discusses the mythological narrative in 'The Three-Body Problem 'in his paper [1]. Pointing out that Liu has created a grand view of the universe through the combination of technology

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and myth. Zhang Dong analyzed the mythological elements in the 'The Three-Body Problem' from the narrative angle [2]. And believed that Liu used multiple narrative techniques to create a new narrative form through the combination of science fiction scenes and mythological images, giving science fiction a deeper cultural connotation. Han Yingqi and Liu Yanxia focus on the analysis of the scientific narrative in Liu's novels, pointing out that the core of his works is how to unfold the storyline through scientific thinking and scientific logic [3]. These scientific narratives are often intertwined with myths and religious concepts, forming a unique narrative style. Li G and Nathaniel I. discuss the significance of Liu's science fiction in global literature [4]. Especially in the process of China 's outward looking, Liu's works show the integration of global science and technology narrative and Chinese culture. Xuening L. analyzed Liu's narrative art [5]. And believed that the combination of science and technology and mythology in his works enhanced the tension of narrative and created a literary world with unique aesthetic characteristics. Although scholars have discussed the narrative of science and technology and myth in Liu's works from different angles. There is still a lack of systematic research in this field. Especially in the discussion of the combination of science and myth, there is still room for further exploration. Liu's works often use Chinese and Western myths and legends, combine them with developed science and technology to provide readers with a grand and fantastic reading experience. The vast majority of the worlds in Cixin Liu's work are constructed from scientific theories that are known but not applied today. It is a world where science and technology are extremely advanced, far beyond today's technological level. Readers see the world as the ancients see the modern world, is mythical incredible. In such a world, the role or civilization that has mastered advanced science and technology can control and change or even create the world or universe like 'God'. The 'Gods' that once appeared in myths can be created by means of science and technology. Technology has gone beyond 'God' to the stage where it can 'make God'. At this point, the characters or civilisations that have mastered technology are 'new gods' to the readers. The new worlds built by technology and the stories that take place in these new worlds are like 'new myths' to the readers, which are shocking and awe-inspiring. Up to now, there is a considerable amount of academic research on the mythological narratives in Liu's works. But most of it still focuses on the study of his long novels. Through reading, the author found that his short stories are rich in the use of mythological narratives, but the academic research in this area is almost blank. Therefore, the author chooses two short stories 'Angel Age 'and 'Taking Care of the World 'which are closely combined with myth and scientific narrative to study. Through the data research on the vocabulary of myth and science in his works, the typical characters and plot research, this paper discusses the application and combination of science and myth in Liu's short stories.

# 2. Science and Myth in the 'Angel Age'

The full text of , Angel Age , is more than 21,000 words. The author makes statistics on the vocabulary related to science and mythology. And ranks them according to the number of occurrences from more to less. The statistical words are all important for plot development or characterization. And the number of occurrences is not less than 2 times. According to statistics, there are 133 times of 8 words in the representative scientific aspects and 98 times of 7 words in the mythological aspects. The specific data are shown in Table 1.

Vocabulary (science)	Gene	Biology	Programming	Engineering	Science	Molecu- lar	Technology	Computer
Times	38	27	22	14	12	9	8	3
Vocabu- lary(myth)	Flying man	God	Devil	Wings	Snake	Elf	Creation	
Times	65	14	7	5	3	2	2	

Table 1. Science and Myth related vocabulary statistics

Mythology is the early artistic creation of human beings. 'Myths are sacred narrative explanations of how the world and people came into being and became what they are today', People recorded this narrative interpretation in the form of stories, which were passed down through history and became the myths we know today [6]. Through the

analysis of the table1. The author finds that the vocabulary of myths in the novel is mainly related to 'flying man', that is 'angel'. For example, the 'devil' opposite to the 'angel', the iconic feature of the 'angel' 'wings' and so on. The vocabulary related to science revolves around the 'gene programming technology 'that creates 'flying man

' in the novel. For example, ' biology ' and ' molecule ' related to 'gene', 'computer' related to 'programming '. In this novel, the black doctor Ita, who has mastered advanced technology, creates a Sambian soldier with wings like 'angels 'who can fly like 'gods '. Some scholars have defined the role of "divine power" in Liu's novels, named it " scientific god, " and distinguished it from the god in traditional mythology: 'The difference with traditional gods is that the divine power of traditional gods is sacred and unknowable. The divine power of the scientific God is the scientific power that human beings can achieve through the development of science and technology that is knowable [7]. 'It can be seen that 'God of Science' is a typical character in Liu's works that combines science and myth, and its appearance is not accidental, but the author's deliberate. The study of the characters and mythological archetypes associated with the 'god of science' helps to better explore the combination of science and myth in his novels. 'Angel' is a character that appears in Western mythology. In Christian, Jewish, and Islamic mythology, Angel is God 's Messenger, responsible for conveying His will to protect and guide humanity. 'Angel ' is usually depicted as a beautiful existence with wings. Through investigation and research, the author believes that the 'angel' in the novel is the 'flying man' in the table statistics. The mythological archetype is Michael, the angel in the Bible. In the Bible, Michael is the guardian of Eden designated by God. In the 'Angel Encyclopedia', a priest 's poem praises him: 'You have successfully protected women and children; subdued the dragon, but also locked his power'

[8]. In different religious traditions, he was given different roles, but usually related to fighting and protection. This image is very similar to the image of the flying man depicted in Liu's novels. In the novel, the flying men fight with the United Nations forces to protect the people of Sambia. The capitalist countries that are not willing to help the people of Sambia and launch an attack on them after knowing that the doctor has genetically modified the Sambians are similar to the 'devil' in the myth. That is the 'dragon' mentioned in the poem. The flying men who defend their country are 'angels 'in myths in terms of biological image and moral image. Liu combines science and myth perfectly. The 'angel' in the story is created through science. In this case, science and technology is the 'creation software 'mentioned by Liu. The protagonist of the story, Dr Ita, is a God-like being to the Sambians, a 'scientific god'. He created 'angels' and made them fight for the Sambia nation, just as the Archangel Michael fought for 'God' in the 'Bible '.

# 3. Science and Myth in the 'Taking Care of the World'

,Taking Care of the World 'includes two short stories: 'Taking Care of the God 'and 'Taking Care of the Human '. The full text is more than 42,000 words. According to statistics, there are 222 times of 8 words in the representative scientific aspects and 273 times of 6 words in the mythological aspects. The specific data are shown in Table2.

Table 2. Science and Myth related vocabulary statistics

Note. "	The Ultimate	Capitalist'	is the	author's	original	new term	with n	nvth color
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Vocabulary (science)	Spacecraft	System	Machine	Technology	Light Speed	Science	Software	Engineering
Times	100	27	26	22	19	9	6	5
Vocabu- lary(myth)	God(s)	create	Destroy	The Ultimate Capitalist	immortali- ty	creation		
Times	231	20	8	7	4	3		

Through the analysis of Table2, the author finds that the vocabulary of myths in the novel is mainly related to 'gods', such as its physiological characteristics' immortality', its initiative 'creation' and 'destroy'. Therefore, in terms of mythological narrative, the author mainly focuses on the mythological prototype analysis of the word' gods' and its combination with science. The words related to science in the novel are all related to the 'spacecraft' used by the 'gods'. Such as the speed of the spacecraft 'light speed', the operation of the spacecraft depends on

'technology' system' and so on. Therefore, in terms of scientific narrative, the author mainly analyzes from the spacecraft' as a starting point.

Liu depicts the image of 'gods' in his works in this way.' In the world 's major cities, there have been some wandering old people, they all have some common characteristics: very old, with long white beard and white hair, wearing the same white robes '[9]. In Chinese mythology, the images that are in line with it are the Taishang Laojun, Shouxing (one of the three stars of Fulushou). In Western

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mythology, the images that correspond to it are Odin in Norse mythology and Moses in the 'Old Testament'. Although these 'gods' come from different cultural backgrounds, they are endowed with similar symbolic meanings. Such as immortality, wisdom, control of mysterious forces. These common characteristics make them an influential and respected image in their respective cultures. The image of 'gods' in 'Taking Care of the World 'inherits the characteristics of 'god' in Chinese and Western mythology, but it is different from it. The gods in myths will not face realistic problems such as eating and illness. In the novel, it is mentioned that 'the gods have very serious bronchitis, which is not a disease that costs a lot of money, but requires long-term treatment and maintenance, and money is naturally to be spent constantly' [9]. Liu's setting of the image of the immortal broke the image of God 's omnipotence and perfection in traditional mythology. And endowed the immortal with human vulnerability, such as bronchitis and other diseases, so that it has human characteristics. The immortality of the immortals and the coexistence of bronchitis also show that although the development of science to a certain extent can bring the potential to go beyond the limits of nature. But at the same time, some natural laws are still not violated.

There is a profound connection between the 'creation' and 'destroy' of the 'gods' in the novel and the Eschatology of Christianity. Christianity 's Eschatology is a theological theory about the end of the world and the ultimate fate of mankind. 'Destruction 'is the core concept. However, destruction is not the ultimate outcome. The destruction of the world will pave the way for the arrival of a new world. The 'gods civilization' in the novel is a creator who created human and other brother civilizations. However, due to the development of civilization and the passage of time, the 'gods' gradually aging, one day they will' end '. This end is inseparable from the 'destruction' in eschatology. At the same time, in the first chapter of the novel 'Taking Care of the God ', the immortals came to the earth to 'support the elderly 'and in the second chapter' Supporting the Humans ', the brotherly civilized humans came to the earth to find a new home, which is similar to the Second Coming of Christ.

At the same time, the arrival of the gods on Earth to 'Elderly care' in the first part of the novel 'Taking Care of the God', as well as the arrival of the brother civilisations of mankind on Earth in search of a new home in the second part 'Taking Care of the Human' are both similar to the Second Coming of Christ. The return of Christ is the central theme of Christian eschatology, which means that Jesus Christ will come to the earth again and complete the unfinished work of salvation. Christianity believes that Jesus Christ will come for the second time in the end of the

world, and its return marks the official arrival of the end of the world. In the novels, the initiative of 'creation 'and 'destroy 'is not only the product of science, but also has the color of myth and religion. The author combines the elements of Christian eschatology with scientific narrative to reinterpret traditional religion in science fiction works. This combination challenges the traditional religious concepts and makes the scientific narrative and mythological narrative skillfully integrated.

# 4. Combination of Science and Myth

The combination of science and mythology in Liu's works can be summarized in the following ways. Next, the author will analyze the different ways of combination in detail for the specific examples in the 'Angel Age' and 'Taking Care of the God '.

### 4.1 Myth Scientize

The specific practice of 'Myth Scientifze' in the novel has two ways: 'Explaining Myths scientifically' and 'Scientifically reshaping myths'. The method of 'Explaining Myths scientifically' mainly explains events, characters or phenomena in myths through scientific theories or technical means, so as to rationalize myths in the context of modern science. In the 'Angel Age', Liu scientificized the image of angels and gave them a clear biological background. 'Angels ' is product of modern science and technology. They are created by science and technology, that is 'gene programming '. At the same time, Liu has carried out detailed science popularization and elaboration on scientific and technological means such as gene programming and biological science in the novel. So that readers can truly feel the existence of 'angel', a 'new human' programmed by gene.

The ,god' in 'Taking Care of the God' is actually a higher intelligent civilization, rather than a true religious god. The transformation of the 'god' from an abstract, supernatural existence to a high-dimensional intelligent creature that can be scientifically explained has a scientific color. From a scientific point of view, the author explains the existence of 'god' and the decline of its civilization through logical reasoning and scientific theory. It highlights the understanding and control of the laws of the world in scientific narratives. Through scientific language and logic, Liu scientificizes the 'god' in the myth and gives it a sense of understandability and reality.

The method of 'Scientifically reshaping myths' mainly reinterprets or reinterprets the characters, concepts or story lines in myths, and transplants them into modern or future technological backgrounds to make them part of scientific narratives. The two short stories discussed by the author

both reshape the relationship between human beings and the 'God' in the myth.

In ,Taking Care of the World ', 'god' is no longer an omniscient god in traditional mythology, but an extremely old and weak existence that needs human support. The author reshaped the image of 'god'. At the same time, the relationship between human beings and gods in the novel has a strong mythological color. The human 's ' support of the gods is a reinterpretation of the modernization of the gods worshipped by human beings in the myth. Human beings have a tradition of offering sacrifices to gods for shelter. And there are many stories about offering sacrifices in myths. In Chinese traditional culture, people often sacrifice their ancestors in major festivals. The main ways are burning incense, offering wine, offering food, burning paper money and so on. The West often worships gods and sacrifices before festivals and wars, which is particularly common in Greek and Roman mythology. There are many stories about sacrifices in Greek mythology. For example, 'Sacrifice of Iphigenia before the outbreak of the Trojan War', 'The Underworld Sacrifice of Odysseus', 'Achilles ' sacrifice to Patroclus at the funeral ' and so on. There are various forms of worship in Chinese and Western mythology, which reflect the awe of human beings to gods, nature and ancestors. The worship in Chinese mythology emphasizes the harmonious relationship between man and nature and ancestors. Sacrifice in Western mythology emphasizes the contractual relationship between man and gods, and expresses loyalty to gods through sacrifices and rituals. Although the forms of worship of gods in China and the West are different, they all reflect the respect and worship of supernatural forces in human culture. In 'Taking Care of the World ', Liu re-enacts this kind of offering as human support for the immortals, and transforms its background from superstition to science. The various problems encountered by the God civilization, such as the aging of civilization, the aging of spacecraft, and the forgetting of technology, are based on scientific theories rather than mysterious forces. In the past, the worship of the immortals had a strong mythological and religious color. In the novel, the human 's support for the gods is concrete and realistic, which is similar to the support for the elderly by children in modern society. The relationship between human beings and gods is transformed from the original worship and awe into a kind of morality and responsibility. The human 'support 'fairy has been given mythical depth and complexity.

Explaining myths scientifically and 'Scientifically reshaping myths' both transform myths into a story with scientific logic, combining myths with modern science, and myths become scientific. This narrative method transforms the characters in the myth into the object of

scientific exploration, and endows the myth with scientific significance. It highlights the role of human beings in the era of science and technology and emphasizes the power of human beings to create and destroy themselves. Make science a 'new myth 'and science fiction a 'new 'Bible 'for the future world. Therefore, the author believes that the narrative method of 'Myth Scientifze' is one of the important ways of combining science and myth in Liu's works.

### 4.2. Mythologizing Science

The specific practice of 'mythologizing science' in novels includes two ways: 'Future technology triggers myth recovery' and 'Giving science the concept of myth'.

The scientific mythologizing approach of 'Future technology triggers myth recovery' is usually done through some kind of technological means to stimulate the power or events in the myths, so that the myths become real again. In 'Angel Age', technology is depicted as being able to activate or reproduce supernatural powers from mythology. In the novel, the 'flying man' created by the cutting-edge technology of 'genetic programming' activates the mythological archetype of the 'angel'. Liu makes mythological gods real through various technologized settings. Science has a mythical quality to it. 'People once scientifically proved the falsity of myths, but a new spatio-temporal framework makes such seemingly absurd imaginings possible[10].' This intersection of science and myth has revitalized myth in the world of science and technology. In 'Taking Care of the World ', 'spacecraft' is the focus of the author's research as the most frequent science-related word. Spacecraft are closely related to mythology. As an important element in science fiction, spacecraft are often given a function similar to that of a mythological sacred tool or vehicle. Inheriting the symbolism of the mythical sacred vehicle in scientific narratives as a symbol of exploration, redemption and adventure. In Western mythology, there are many sacred vehicles like 'spacecraft '. For example, Iason and the other heroes searched for the Golden Fleece aboard the Argo. Another example is Noah's Ark in the Bible. It was built by Noah at the behest of God to protect Noah and his family, as well as all land creatures of the world from floods. In mythology, the Ark was often used as an instrument of divine salvation to protect mankind from destruction. In 'Taking Care of the World ', 'spacecraft' is the means of transportation used by god civilization to come to Earth. It's the home where the gods live. it's also the means of transportation for the humans of the First Earth in search of a new home. In the novel, the 'spacecraft' is a symbol of the modern 'ark'. It often used as a means of escaping catastrophe, finding a

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new home or saving civilization. Liu brings the sacredness and mystery of mythology into the modern technological context through the spacecraft. Making the spaceship not only a product of future technology, but also a product of the future. It is also one of the central elements of the "new myth" under the scientific narrative, and is the symbol of the "new ark". This combination of science and myth makes the spaceship a bridge between the past and the future. This combination of science and myth makes the spaceship a bridge between the past and the future, perpetuating mankind's exploration and contemplation of the universe and itself.

The way in which the 'Giving science the concept of myth' is generally reflected in the novel: In a civilized world where science is extremely advanced. Things or concepts that once existed only in myths become a reality. Therefore, the author assigns science and technology to mythological concepts. In 'Taking Care of the World ', god civilization ' immortality ' by means of science and technology. This physiological property is a scientific concept in the novel: 'Such as information technology and the life sciences.'

,Immortality' is a typical and representative image in myths, which appears many times in both Chinese and Western myths. For example, in Chinese mythology,the Queen Mother of the West is the immortal in charge of immortal medicine, punishes evil, and warns of calamities. In the story of Chang'e's journey to the moon. Chang'e is the one who took the immortality pills and ascended to the moon successfully. And in Greek mythology, gods were immortal and some heroes and mortals were able to live forever through the gifts of the gods or certain magical objects. 'Immortality' is not only a common element in mythology, but also in human imagination and exploration of the limits of life. Liu assigns science to the concept of myth in his novel. This combination of science and myth allows the story to maintain both the rationality and logic of a scientific narrative and the mystical and philosophical depth of a mythological narrative.

### 4.3 Fusion Construction of Science and Myth

The concrete practice of 'fusion construction of science and myth' in the novel includes two ways: 'use the common elements of science and myth' and 'fusing science and myth to form new elements'.

The way about 'use the common elements of science and myth' refers to the use of elements in the novel that have maintained a relatively stable meaning or image from ancient times to the present. And the use of this element in scientific narrative and mythological narrative is reasonable. For example, in 'Angel Age', 'Snake' appears three

times. It has almost nothing to do with the storyline and characters of the novel, but appears several times in the text. So 'Snake' attracted the author's attention. The three occurrences of 'snake' in the novel are all negative images or metaphors. 'The snake on the ground died of thirst and was dried up by the scorching sun, and when it was trodden on, it became crushed [11].' In Western mythology, especially in the Bible, snakes often symbolize temptation, sin, terror, and destruction. Liu frequently uses the image of 'snake' in his novels. While constructing the future world and telling science fiction stories, he continues the deep mythological tradition of human culture, combines myth with science in depth, and constructs a new 'science myth'.

The way of 'fusing science and myth to form new elements' refers to the combination of science and myth to create a new narrative element with dual attributes. And this element has both scientific and mythological properties. 'The Ultimate Capitalist' in 'Taking Care of the World ' is an image created by Liu with both scientific and mythological attributes. The Ultimate Capitalist' as an individual with almost unlimited resources and wealth, embodies the author's imagination of the extreme development of capitalism. Want to know what the Ultimate Capitalist owns? He owns the entire First Earth! All the continents and oceans of this planet are his family's living rooms and courtyards, and even the atmosphere of the first earth is his private property.'[9] This description is similar to the absolute rule and possession of the world by the gods in mythology. The power of the Ultimate Capitalist is magnified to the limit by means of science and technology. At the same time, the extreme social divisions and the gap between the rich and the poor in the novel also have similarities with the mythical divisions between heaven and hell, between gods and men. It Reflects the extreme inequality of the social structure of the First Earth as a result of technological overdevelopment and unchecked capitalism. Liu created a new element 'the Ultimate Capitalist', skillfully combines the imagination of science fiction with the narrative tradition of mythology. And created a complex world that is both scientifically logical and mythologically colored.

## 5. Conclusion

Through an in-depth analysis of Liu's short stories 'Angel Age ' and 'Taking Care of the World '. This paper explores the combination of science and myth in his works and analyzes in depth the ways in which the two are combined. This combination not only plays an important role in advancing the plot and characterization, but also provides readers with insights into the future of mankind,

technological advancement and cultural heritage.

This paper analyzes the text using "word frequency analysis", "myth-archetype criticism", and "textual analysis" to show the "Liu Cixin-style" narrative art. And reveal how Liu enriches the narrative content by interweaving science and myth in different works.

The analysis in this paper provides a practical case study of science and myth in Liu's work. It will help future scholars to build on this foundation. In addition, the narrative approach revealed in this paper is not only important for research in the field of science fiction literature, but also provides new perspectives and ideas for studying the symbiotic relationship between science and myth in literature.

This study also has the limitation of not being able to fully cover all the cases of combining science and myth in all of Liu's works. Therefore, future research can further explore the diversity of the combination of science and mythology in Liu's other works. And systematically analyze how these combinations work in different texts. Further explore the influence of the combination of science and mythology on literary narrative, and provide more inspiration for the criticism and research of science fiction literature.

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