

NOT JUST HAUNTING, NOT JUST LOVE, NOT JUST HUMANS: GHOSTS, WEAPON
FETISHISM AND NON-HUMAN-CENTRED NARRATIVE IN LIU CIXIN'S *THE THREE-
BODY PROBLEM* TRILOGY AND *BALL LIGHTNING*

by

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Not Just Haunting, Not Just Love, Not Just Humans: Ghosts, Weapon Fetishism and Non-Human-Centred Narrative in Liu Cixin's *The Three-Body Problem* Trilogy and *Ball Lightning*

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Abstract

This study sheds new light on how Liu Cixin's SF writing goes beyond a human-centred narrative structure and investigates the systematic appearance of ghosts and weapon fetishism in *The Three-Body Problem* trilogy and *Ball Lightning*. The narrative functions of ghosts and weapon fetishism are shown to establish what I call a "heaven-centred narrative (*tianjie zhongxin xushi* 天界中心叙事)" within a SF framing to replace the narrative centre that a human-centred narrative usually occupies. "Heaven-centred narrative" means a narrative that centralizes a fictional non-human world with advanced physics rules unknowable to humans. "Ghost" here refers to spirits from the dead (hauntings that can be metaphorical or literal). Weapon fetishism means the intimacy with, desire for, and/or aesthetic appreciation of, weapons (specifically those that are SF innovations). *Tianjie* 天界 (heaven) in my study means a realm above the human realm that influences the latter uni-directionally, and it also suggests the outer universe or another space that appear in the novels. This study argues that ghosts and weapon fetishism enhance the heaven-centred narrative by shifting the plot and cognitive centre to a transcendent non-human-centred space.

Lay Summary

This study explores ghosts and rewriting of fetishism as a vehicle for transcending human-centred narrative in Liu Cixin's SF writing. Focusing on Liu Cixin's *The Three-Body Problem* trilogy and *Ball Lightning*, this study argues that ghosts in the four novels form a non-human-centred narrative subject and space with their own story and worldview. Ghosts open and dominate the two stories, and also draw human characters away from the human world. Usually appearing together with ghosts, desire surrounding weapons further allures characters to enter the ghosts' world. By investigating these two objects, this thesis roots the entanglement of ghosts and desire in Liu Cixin's literary experiment to de-centre human-centred narrative through re-directing the narrative structure to create a transcendent non-human space .

Preface

This thesis is original, unpublished and independent work by the author, Chen Chen. No Generative Artificial Intelligence tools were used in the research or writing process.

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I want to express my gratitude to my family, who always love me, trust me, and back me up.

Finally: to the moments when the stars pluck our mind.

Chapter 1: Introduction: Entering The World of Ghosts, Humans Forgot About Themselves (昔者人梦入鬼境, 不知人也)¹

Singer sang one of these classical songs as he reviewed the data.
I see my love;
I fly next to her;
I present her with my gift,
A small piece of solidified time.
Lovely markings are carved into time
As soft to the touch as the mud in shallow sea.

...

She covers her body with time,
And pulls me along to fly to the edge of existence.
This is a spiritual flight:
In our eyes, the stars appear as ghosts;
In the eyes of the stars, we appear as ghosts.

As he continued to sing, Singer picked up the dual-vector foil with a force field feeler and carelessly tossed it at the Star-Pluckers.

--Liu, Cixin, *Death's End*²

As the contemporary Chinese science fiction (hereby SF) writer Liu Cixin (1963-)'s representative works, *The Three-Body Problem* trilogy (hereby the *Three-Body* trilogy) and its prequel, *Ball Lightning*,³ both feature stories beginning and climaxing with ghosts (metaphorical or literal).

¹ This thesis will focus on textual analysis; when referring to authorship, this thesis will only discuss Liu Cixin's role as the text creator instead of Liu Cixin as the real person. The controversies surrounding Liu Cixin's viewpoints on social issues in and outside his works are not within the scope of this thesis.

The title of Chapter One is inspired by a famous quote from *The Adjustment of Controversies* [*Zhuangzi Qiwulun* 庄子·齐物论], see "*Qiwulun* 齐物论[The Adjustment of Controversies]," ctext, <https://ctext.org/zhuangzi/adjustment-of-controversies/zhs>.

Original Chinese text: 昔者庄周梦为胡蝶, 栩栩然胡蝶也, 自喻适志与! 不知周也。

Translation: In the past, Zhuang Zhou dreamed of himself becoming a butterfly. He was so vividly a butterfly (in the dream), and he knew it fits his will. He then forgot about himself as Zhuang Zhou.

² Liu, Cixin. *Death's End*, translated by Ken Liu (New York: Tor, 2016), 894, 907.

https://readingservices.kobo.com/ReadNow/d72c89b1-ab34-4c5d-9af7-61933af5bbd1?backref_url=https%3a%2f%2fwww.kobo.com%2fca%2fen%2flibrary%2fbooks.

³ In this thesis, I regard *Ball Lightning* as the prequel to the trilogy. Firstly, although Liu Cixin did not formally claim this relationship, there is a continuity in the storyline between the two works, and their worldviews do not contradict each other. Ding Yi, a major character in *Ball Lightning*, is also an important character in the first and second volumes of the *Three-Body* trilogy, and he mentions macro-atom, the core setting of *Ball Lightning*.

These ghosts either have no human origin at all or are ultimately removed from any connection in terms of identity in human society. The ghosts' shadow over humans' story are entangled with humans' desire and intimacy linked to weapons as non-human-crafted SF innovations. Behind these shadows shines a literary experiment that attempts to detach humans from the narrative centre through humans' most intense way of being—death and desire. This study examines the systematic appearance of ghosts, as well as characters' sensual and aesthetic attachment to weapons in these two works. Questions explored include: What do ghosts and weapon fetishism do in Liu's two works, and why do they matter? Is there an inner mechanism behind the connection between ghosts and weapon fetishism in the narrative? To answer these questions, this thesis will do a close reading of the influence of ghosts and weapon fetishism on the narrative structure. This thesis shows specifically how Liu Cixin detaches the human-centred narrative in fiction, which has been noticed by some scholars but not comprehensively analyzed. This chapter briefly introduces Liu Cixin's four novels and the context of Liu Cixin's SF in the history of Chinese SF. Next, it provides a literature review and a detailed thesis statement.

The trilogy and *Ball Lightning* as the representatives prove that Liu Cixin's SF works not only imagine but also experimentally show a way of imagination: to detach from humans through *humans'* most intense cognitive experiences: death/haunting and desire, enabling humans to detach from themselves through themselves, completing an almost-paradox. Liu's works thus feature a unique way to approach humanness and nonhumanness. Unlike Liu Cixin's SF, much of the

Second, Lin Yun, the human protagonist in *Ball Lightning*, also appears in the photo Ding Yi collected. See both cases in Liu Cixin 刘慈欣, *Santi diqiu wangshi sanbuqu zhiyi* 三体·地球往事三部曲之一. (Chongqing: Chongqing chubanshe, 2008), 293-294.

In *Dark Forest*, macro-atomic fusion was also considered a way to attack Trisolarans. See Liu Cixin 刘慈欣, *Santi er heian senlin* 三体 II·黑暗森林 (Chongqing: Chongqing chubanshe, 2008), 173-175.

Moreover, *Ball Lightning* and the trilogy share a similar narrative and thematic structure as described at the beginning of this chapter, with the entangled spectrality and weapon fetishism as the climax and the appearance of ghosts at the beginning.

history of Chinese SF is shaped by the texts' discussion surrounding relationships and order within human society, from the combination of nationalism and technological progressivism with the theme of exploring the future of China in the Republican period, to the combination of socialism and technological futurism.⁴ Then, after the silence during the Cultural Revolution and the 1980s due to SF's "western" origin, Chinese SF revived in the 1990s.⁵ From this period on, Chinese SF presents more diversity. Besides the continuation of the topic of technological advancement as the response to the political and economic blueprint of modernization in China at the end of the century,⁶ SF as a literary form also showed influence of modernity and grand narratives.⁷ The Chinese "New Wave" SF is an important example. Borrowing the term "New Wave" from Anglo-American SF history, Mingwei Song referred to this term in discussing the experimental and "subversive" SF works that became the mainstream of Chinese SF since the beginning of this

⁴ In the late Qing and Republican periods, science fiction flourished in China, combined with the progressive imagination about a modernized China in the future [For example, see Han, Song. "Chinese Science Fiction: A Response to Modernization." *Science-Fiction Studies* 40, no. 1 (2013): 15. Wang, David Der-Wei. "Chinese Literature from 1841 to 1937," in *The Cambridge History of Chinese Literature*, edited by Chang, Kang-i Sun and Stephen Owen (Cambridge: Cambridge University Press, 2010), 453. Song, Mingwei, "After 1989: The New Wave of Chinese Science Fiction," *China Perspectives* 2015, no. 1 (101) (2015): 7. Wang, Yao 王瑶, "Quanzhihua shidai de minzu yuyan dangdai zhongguo kehuan zhong de wenhua zhengzhi 全球化时代的民族语言——当代中国科幻中的文化政治 [National Language in the Globalization Era: Cultural Politics in Contemporary Chinese Science Fiction]" in *Zhongguo Ke Huan Wen Xue Zai Chu Fa 中国科幻文学再出发[Chinese Science Fiction : A New Beginning]*, edited by Guangyi Li, (Chongqing: Chongqing da xue chu ban she, 2016), 153.] This period also saw the introduction via translation of famous foreign SF works that are usually related to the fate of China, linking SF to the "saving China" nationalist background [See Wang, David Der-Wei. "Chinese Literature from 1841 to 1937," 453-454 for more examples].

The early PRC period or Mao period, especially the 1950s, saw a temporary burgeoning of SF featured by the futuristic narrative and depiction of technological details. Influenced by Soviet SF writing highlighting "science as a mode of thinking," Chinese SF in this period also combined fantasy with detailed rules of science to construct a spectacle of a technologically advanced future to come for the young generation. Besides fulfilling the demand for science popularization, Chinese SF, with such technological futurism, remained relatively independent from Communist propaganda [See Volland, Nicolai, *Socialist Cosmopolitanism: The Chinese Literary Universe, 1945-1965* (New York: Columbia University Press, 2017), 110, 112, 116-117, 119 for more examples].

⁵ Han, Song, "Chinese Science Fiction," 16.

⁶ Li, Hua, *Chinese Science Fiction during the Post-Mao Cultural Thaw* (Toronto: University of Toronto Press, 2021), 115, 118-119.

⁷ Li, Guangyi 李广益. "Zhongguo zhuanxiang waizai lun Liu Cixin kehuan xiaoshuo de wenxueshi yiyi 中国转向外在：论刘慈欣科幻小说的文学史意义[China Turning Outward: On the Meanings of Liu Cixin's Science Fiction on Literary History]," *Zhongguo xiandai wenxue yanjiu congkan 中国现代文学研究丛刊* no. 8 (2017): 51.

century. Liu Cixin, Han Song, and Wang Jinkang are among the representatives. They depict apocalyptic spectacle and technological dystopia in their works, overshadowing the techno-progressivist utopia.⁸

Compared with his contemporary counterparts, such as Han Song, who focused on the entanglement of technology, history, and politics,⁹ Liu Cixin's SF, such as the four novels this study investigates, simplified the humanist discussion and gives more agency to a grander world outside of human society and humans' perception of meanings. For example, the narrative focus of *Ball Lightning* is supervised, directed and determined by the omnipresent quantum ghosts in another macro physical space; and the protagonist's life is revealed surrounding the exploration of the enchantment of the quantum world. Similarly, in the *Three-Body* trilogy, the ultimate direction of the story is also determined by another unknown cosmic civilization with its own worldview. On the other hand, in these two works, Liu Cixin's detachment shapes his unique and *indirect* way to approach humanity: through representing and projecting humankind's religious passion towards an imagined heaven that appears as the characters' most intense human experiences (i.e., collapse of self, death, and desire) that are directed outward instead of inward.

In the first volume, *The Three-Body Problem*, 21st Century nanoscience technology expert Wang Miao is engaged in the case of scientists' mass suicide, behind which was a suspicious research group "Frontiers of Knowledge," a branch of Earth Trisolaris Organization, or ETO, ruled by Trisolarans (*Santiren* 三体人) from a cosmic civilization in Trisolaris (*Santixing* 三体星). The latter invents a proton-sized micro-computer that can move at hyper-light-speed, Sophon (*zhizi* 智子). Sophon is used to monitor humankind and generate quasi-miraculous phenomena that humans

⁸ Song, Mingwei, "After 1989," 8.

⁹ Song, Mingwei, "Variations on Utopia in Contemporary Chinese Science Fiction," *Science-Fiction Studies* 40, no. 1 (2013): 87-89.

cannot scientifically explain. The latter, because of the collapse of belief in physics it caused, inspired mass suicide, the victims including Dr. Yang Dong, Ye Wenjie's daughter. Ye Wenjie, the head of ETO, is a retired physics scholar at Tsinghua University. The personal and general tragedy during Cultural Revolution causes her to lose hope in human nature. Thus, she sends a cosmic message to Trisolaris civilization and invites them to come to the Solar System and help reform humankind. However, Trisolarans plan to occupy the Earth directly because of the harsh environment on their planet, caused by the irregular three-body movement of the three "suns" in their galaxy. The second volume, *The Dark Forest* (*Heian senlin* 黑暗森林), is named after the basic cosmic laws in the trilogy, which prioritizes survival and assumes the constant total amount of substances in the universe. Because of this, in addition to the impossibility of honest communication due to the distance and barriers among species, and the possibility of the boost of technology development of every suspicious cosmic rival, when one cosmic civilization discovers another one, the only choice is to eliminate it. After the discovery of Dark Forest Rules, humans finally build a deterrence towards Trisolarans: humans could send their position into the universe at the risk of the exposure of the Solar System, which is close to Trisolaris, thus creating a mutual threat of destruction.

In the third volume, the mutual deterrence between Trisolarans and humans is broken, but the position of Trisolaris is finally sent to the universe by humans who were exiled into the universe on starships. Humans thus begin preparation for the attack from the universe. However, they do not expect that the rivals are so technologically advanced that they can change the spatial dimensions to eliminate a cosmic civilization: Singer, a low-class "cleaner" from another technologically advanced cosmic civilization, discovers the Solar System and throws out a Dual-Vector Foil (*erxiangbo* 二向箔), which condenses the whole Solar System into a two-dimensional

space. Dr. Cheng Xin and her friend Ai AA escape from the apocalypse with Halo (*xinghuanhao* 星环号), one of only two Lightspeed Spacecraft. They meet Dr. Guan Yifan in space and learn more about the collapse and disorder in the universe. The fate of the great universe remains unknown.

The main human character of *Ball Lightning* (*qiuzhuang shandian* 球状闪电),¹⁰ is Lin Yun, a Chinese Army officer who is obsessed with advanced weapons. The narrator, Dr. Chen, meets her at the top of Mount Tai. They are both searching for ball lightning: Dr. Chen wants to figure out the truth of his parents' death, while Lin plans to invent a new weapon based on it. During their research in the army, they invite scientist Ding Yi (who is also an important figure in the *Three-Body* trilogy) to their group. Ding Yi manages to figure out the essence of ball lightning: a macro electron (*hong dianzi* 宏电子), that belongs to a “macro world,” (*hongshijie* 宏世界). The macro world is a physical space based on the same particle-atom structure of the human world but of a much larger size. Quantum mechanics and string theory also work for the macro world. The protagonists also discover that the target of ball lightning would become quantum ghosts (*liangzi youling* 量子幽灵). In other words, with the presence of any observer,¹¹ living beings or matters such as quantum ghosts would “collapse” into a destruction state, or the state they are in the normal real world, such as a corpse or ashes; when they are not observed, however, they will be in a quantum superposition state, where their existence will be uncertain. During an ensuing war, Lin Yun and Ding Yi find two strings or the nucleus of macro atoms. Lin Yun ignores the order to stop macro-atomic experiments and generates macro-atomic fusion (the set target was computer chips). Lin Yun becomes a quantum ghost, but this time, despite many observers, she does not

¹⁰ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电 (Chengdu: Sichuan kexue jishu chubanshe, 2004) .

¹¹ Any being that is present and gazing at the quantum ghost could be an observer. See Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电 (Chengdu: Sichuan kexue jishu chubanshe, 2004) , 163-165.

immediately disappear. As Ding Yi speculates, this is because if a quantum ghost acquires consciousness, then the ghost itself is also an observer from within, which could offset the external observation. The exact truth and the physics system in the quantum macro-world, though, remains unknowable.

In summary, the *Three-Body Trilogy* and *Ball Lightning* tell a story (or two stories) about how humans, following their scientific and technological exploration, discover the unknown and unknowable truth of the universe, which renders their scientific knowledge and cognition invalid. This process involves characters encountering ghosts, and then getting lost and enchanted by the ghostly world. What is unusual is that these moments of ghostly intimacy tend to involve weapons.

The Story Before the Story

Previous research regarding ghosts in Liu Cixin's SF notices haunting (by haunting I mean the unexpected intrusion of the image of the dead into humans' consciousness) as singular and isolated cases under other theoretical exploration, lacking the attention to Liu Cixin's experiment in reforming the overall narrative structure in which ghosts and haunting play a proactive, systematic and structural role. For example, Jeff Dories focuses on the haunting, human-environment relationship and Liu Cixin's anti-anthropocentrism attempts in *The Three-Body Problem* and *Ball Lightning*.¹² Dories points out that, in the trilogy, Liu Cixin challenges anthropocentrism by placing characters in ghostly encounters when the environment that humans used to sabotage turns back on humans through uncanny and traumatic experiences. Responding to this call, human characters like Ye Wenjie become extremists that deny human beings. In *Ball Lightning*, similar experience of horror and emotional dislocation brought by the outside world also happen to

¹² Dories, Jeff. "Decentering Anthropocentric Narcissism: The Novum and the EcoGothic in Cixin Liu's the *Three-Body Problem* and *Ball Lightning*." *Southeast Asian Review of English* 59, no. 1 (2022): 113, 120.

protagonists, yet Lin Yun and Dr. Chen choose opposite responses to such experience: Chen detaches from the direct engagement of the estranged world that brings the uncanny, yet Lin Yun over-engages it and react to such experience in an extremist way.¹³ Referring to Darko Suvin, Dories argues that technological innovation in SF settings generates such estrangement.¹⁴ In a 2024 paper, Mellisa Hosek also notices the relationship between uncanny experience and human-non-human relationship. To Hosek, when Ye Wenjie witnesses a tree being cut down, it generates the illusion of her father's death as the incarnation of the overlapping entanglement between the environmental destruction and the suffering of scientific rationality under extreme political idealism, both of which, according to Hosek, are presented as humans' demise of and confrontation with the objective non-human world outside them.¹⁵ Therefore, both Dories and Hosek notice the uncanny experience and the cognitive radicalness behind it, but Hosek further specifies its significance lies in politics, a sphere I do not discuss in my analysis because I see a different focus in Liu's work.¹⁶

Dories and Hosek's insights share some of my concerns in this thesis: haunting in the two works, its relationship with the challenge of human-centred narrative, and human characters' intense cognitive response to this mechanism. However, constrained by their research scope and theoretical concerns, Dories and Hosek do not touch on the systematic appearance of ghosts throughout the trilogy and its prequel, thus ignoring ghosts' narrative functions ("what do ghosts

¹³ Dories, Jeff. "Decentring Anthropocentric Narcissism: The Novum and the EcoGothic in Cixin Liu's the *Three-Body Problem* and *Ball Lightning*." *Southeast Asian Review of English* 59, no. 1 (2022): 113, 120.

¹⁴ Suvin, Darko. "On the Poetics of the Science Fiction Genre." *College English*, 1972, 20.

In Dories, Jeff. "Decentring Anthropocentric Narcissism: The Novum and the EcoGothic in Cixin Liu's the *Three-Body Problem* and *Ball Lightning*." *Southeast Asian Review of English* 59, no. 1 (2022): 112-113.

¹⁵ Hosek, Mellisa Anne, "Ecology, (Post)humanism, and Liu Cixin's *Three-Body Problem*," *Prism: Theory and Modern Chinese Literature*, 21:1(2024): 183-187.

¹⁶ Hosek and Dories both mentioned that when Ye Wenjie witnesses a tree being cut down, it generates the illusion of her father's death, acting as the door opening to a possible dystopic end.

See Dories, Jeff, "Decentring Anthropocentric Narcissism," 116.

Hosek, Melissa Anne, "Ecology, (Post)humanism, and Liu Cixin's *Three-Body Problem*," 183.

do?") and limiting this literary phenomenon to a symbolic exploration ("what do ghosts mean?"). My study will further examine ghosts' specific functions in plots, characterization and settings that serve Liu Cixin's dynamic narration, (rather than specific symbolism), used to de-centralize humans in the text.

Another relevant research stream notices "the non-human" as a symbolic entity in Liu Cixin's SF texts. In a 2016 paper, Mingwei Song points out that, compared with his fellows, Liu Cixin is identifiable by his emphasis on and visualization of the "sublime," or the grand existence of the uncertain and unmeasurable, which is boundary-free and uncontrollable.¹⁷ In his 2023 work, Song further explores the sublime in Liu's SF writing and points out that Liu's sublime is unique because it is combined with sensual details.¹⁸ He also mentions Singer and his civilization, as well as the macro world in *Ball Lightning*, as godlike and sublime beings,¹⁹ but he does not further specify how the text narratively structuralize such transcendental beings to overcome human-centred narrative. Song also notes the tendency of making haunting the transcendence beyond instead of dwelling within human history. In a 2013 article, Song also points out the shadow of dystopia in contemporary Chinese SF writing with examples of Han Song and Wang Jinkang's SF works, in which the techno-progressivist utopia is overshadowed by the sacrifice of individuals, greediness and anti-humanism.²⁰ Song further specifies a "heterotopic interpretation" and argues that, besides the utopia and dystopia that represents a completely positive or negative spectacle, there is a heterotopia, defined by David Wang as an otherized space containing—or imitating—the

¹⁷ Song, Mingwei. "Representations of The Invisible: Chinese Science Fiction in the Twenty-First Century," in *The Oxford Handbook of Modern Chinese Literatures*, edited by Andrea Bachner and Carlos Rojas (Oxford University Press, 2016), 559.

¹⁸ Song, Mingwei. *Fear of Seeing: A Poetics of Chinese Science Fiction* (New York: Columbia University Press, 2023), 137.

¹⁹ Song, Mingwei, *Fear of Seeing*, 116, 123.

²⁰ Song, Mingwei, "Variations on Utopia in Contemporary Chinese Science Fiction," 89-90, 93-94.

elements from the current social order. However, the latter could be transcended, as constructed by New Wave Chinese SF writers like Liu Cixin and Han Song.²¹ If utopia delineates the notion of nationalism-based development and progress in Chinese Science Fiction, and dystopia is its haunting shadow from what it conceals, then heterotopia is the “insurgent utopian impulse of anarchy that fragments our reality, both space and time, into potentially changeable bits.”²² Similarly, compared with the discussion surrounding the ideological themes within human societies in Chinese SF, David Wang directly proposed the term “*youan yishi* 幽暗意识 (dim consciousness)” in contemporary Chinese SF. This term is defined as not only the unknowable intellectual territory outside of reason and rationality but also the way to imagine and explore humanity and see its limit, beyond the boundary of the grand narrative of nation and history.²³ Song and Wang’s insights on haunting as an outward transcendence instead of an inward reflection in SF inspire my systematic investigation on haunting as the mechanism to challenge human-centred narrative. Compared with Song and Wang’s theoretical and symbolic denotation of the existence beyond humankind without systematically delineate a non-human-centred narrative structure and its specific mechanisms, this study will provide a specific narrative analysis of what the non-human-centred world is in the trilogy and *Ball Lightning*, and how Liu Cixin builds a concrete narrative structure that transmits the narrative centre from humanity to this world.

Liu Cixin’s own articles on SF writing shows the authorship in this literary experiment of transcending humans by/through humans. In a 1996 article, Liu highlights that fantasy and

²¹ Song, Mingwei, “A Topology of Hope: Utopia, Dystopia, and Heterotopia” in *Contemporary Chinese Science Fiction*, 2021, 111.

²² Song, Mingwei, “A Topology of Hope,” 111.

²³ Wang, David 王德威, “Shitong san kehan xing zhongguo kehan xiaoshuo de xingqi bofa yu weilai 史统散, 科幻兴: 中国科幻小说的兴起、勃发与未来[The Dispersing Tradition of History and The Rising SF: The Rise, Flourishing and Future of Chinese Science Fiction],” *Tansuo yu zhengming* 探索与争鸣, no. 8 (2016): 107-108.

aesthetics of science should be the center of the ideal SF writing instead of humans.²⁴ Liu believes that science could be an independent literary image in SF writing.²⁵ He expressed strong expectations of SF writing to transcend the narcissistic anthropocentric perspective and explore the grandness of the universe. Humans, he argues, should not be placed in a predominant position.²⁶ Liu Cixin also underlies the term “*mori tiyan* 末日体验 [experience of apocalypse]” in SF writing, which means the fearful moment in darkness and loss when humans directly face the uncertain and unmeasurable universe. This moment, according to Liu, can only be brought by science fiction, the most important task of which is not to explore humanity but to create a new world just like a deity does.²⁷ In a 2001 article, Liu emphasized the “*zongjiao qinggan* 宗教情感 (religious affections)” in SF, which he equates to the fear and respect for the grandness and deep mystery of the universe.²⁸ In addition to what has been discussed in scholarship, Liu Cixin’s own articles on the position of humans in SF narrative further indicate that the transcendence of human-centred narrative is linked to humans’ cognitive experience with a certain intensity. This inspired my systematic investigation of humans’ role in this transcendence in Chapter Four.

²⁴ Liu, Cixin 刘慈欣, “Hundun zhong de kehua 混沌中的科幻[Science Fiction in Chaos],” in *Zuizao de yuzhou zuihao de diqiu liu cixin kehuan pinglun suibi ji* 最糟的宇宙, 最好的地球: 刘慈欣科幻评论随笔集[The Worst Universe, The Best Earth: Anthology of Liu Cixin’s SF Commentaries] (Chengdu: Sichuan kexuejishu chubanshe, 2015), 1-3.

²⁵ Liu, Cixin 刘慈欣, “Cong dahai zhong kanjian yidi shui dui kehuan xiaoshuo zhong mouxie chuantong wenxue yaosu de fansi”从大海中看见一滴水——对科幻小说中某些传统文学要素的反思[Seeing A Drop of Water from The Sea: Reflection on Some Traditional Literary Elements in Science Fiction] in *Zuizao de yuzhou zuihao de diqiu Liu Cixin kehuan pinglun suibi ji* 最糟的宇宙, 最好的地球: 刘慈欣科幻评论随笔集[The Worst Universe, The Best Earth: Anthology of Liu Cixin’s SF Commentaries] (Chengdu: Sichuan kexuejishu chubanshe, 2015), 116.

²⁶ Liu, Cixin. “Beyond Narcissism: What Science Fiction Can Offer Literature.” Translated by Holger Nahm and Gabriel Ascher. *Science-Fiction Studies* 40, no. 1 (2013): 27.

²⁷ Liu, Cixin 刘慈欣, “*xinxing jiyuan houji* 超新星纪元后记 [The Epilogue of *Supernova Era*],” in *Zuizao de yuzhou zuihao de diqiu liu cixin kehuan pinglun suibi ji* 最糟的宇宙, 最好的地球: 刘慈欣科幻评论随笔集 [The Worst Universe, The Best Earth: Anthology of Liu Cixin’s SF Commentaries] (Chengdu: Sichuan kexuejishu chubanshe, 2015), 75-76.

²⁸ Liu, Cixin 刘慈欣, “SF jiao tan kehuan xiaoshuo dui yuzhou de miaoxie SF 教——谈科幻小说对宇宙的描述 [SF Religion: On The Depiction of the Universe in Science Fiction],” in *Zuizao de yuzhou zuihao de diqiu Liu Cixin kehuan pinglun suibi ji* 最糟的宇宙, 最好的地球: 刘慈欣科幻随笔集 [The Worst Universe, The Best Earth: Anthology of Liu Cixin’s SF Commentaries], 31.

Ghosts, Love, and Humans: Thesis Statement, Theoretical Backgrounds, and Why This Story Matters

Overall, this study argues that: ghosts and fetishism are systematic and interconnected narrative mechanisms that belong to Liu Cixin's attempt to replace human-centred narrative with a non-human-centred narrative; through intense cognitive experiences facing a non-human-centred space, humans themselves also become a mechanism of this replacement. Therefore, Liu Cixin's literary experiment reflects on the passion and fear in humanness through the detachment from the latter.

Firstly, in the key chapters (beginnings such as the prelude of *Ball Lightning* and the third chapter of the trilogy; climaxes such as “Macro-Fusion” and “Year 67, Bunker Era”²⁹ near the end of both works respectively; and key turning points such as “String” in *Ball Lightning* and other chapters that are named after the protagonist Lin Yun or named by terminologies related to the macro-world) the texts, Liu Cixin creates a “heaven-centred narrative (*tianjie zhongxin xushi* 天界中心叙事)” to replace the human-centred narrative. Heaven-centred narrative arranges the elements that are not humans, human-crafted using materials within humans' living environment, or related to humans' emotional/social relationships and living environment to dominate and lead humans' story. This narrative highlights a fictional universe or space with physics rules that are ultimately unknowable to humans, or the “*tianjie* 天界 (heaven),” meaning a world above humans' world where deities live.³⁰ I choose this term to describe the one-sided influence from non-human-centred space on humans' world. In *Ball Lightning*, such a space is the quantum macro-space, from

²⁹ I notice that Mingwei Song also mentions the two-dimensionalization of the Solar System as the climax of the trilogy because it is the peak of visualization of the cosmic sublime. Instead, I claim so because it is the intrusion of another worldview and the end of human civilization in Solar System. But generally, because of its importance as the apocalypse, it is reasonable to treat it as the climax.
See Song, Mingwei, *Fear of Seeing*, 138.

³⁰ See “*tianjie* 天界 (heaven),” *Handian* 汉典, <https://www.zdic.net/hans/%E5%A4%A9%E7%95%8C>.
“*Shangjie* 上界 (heaven),” *Handian* 汉典, <https://www.zdic.net/hans/%E4%B8%8A%E7%95%8C>.

which generates the ball lightning, quantum ghosts and macro-atomic weapons; in the trilogy, it is the overall universe outside of the Solar System that consists of and is dynamically constructed by other civilizations and their (eliminatory) interactions. The term “*tianjie*” also speaks to Lin Yun’s first appearance at Mount Tai, and Liu Cixin’s religionization of the non-human-centred world, which will be discussed in detail in Chapter Two and Four.

Secondly, in these chapters, ghosts systematically appear as the warning of the intrusion and domination of the non-human-centred space, the herald from the non-human space that changes and leads the plots in the human-centred space, and a transformative mechanism that brings characters from human-centred space to the non-human space (either through being real ghosts like Lin Yun or through the isomorphic projection between the ghost in Singer’s poem and Singer).

Thirdly, appearing mostly systematically together with ghosts in the climax chapters and sometimes independently in the rest of the chapters indicated above, weapon fetishism is defined as the characters’ intimacy and aesthetic appreciation of weapons that are beyond weapons’ instrumental function. I argue that weapon fetishism is the entry mechanism towards the ghostly non-human-centred space either through luring humans to become ghosts (Lin Yun’s suicide) or by partially bringing separated floating signifiers from the human-centred story into an independent poetic space (Singer and Star-Plucker). Weapon fetishism thus breaks the Freudian dichotomic desire structure of Eros and Thanatos by cancelling the boundary between life and death, inviting an estranged world above the human story.

Finally, humans (characters, the author, and speculatively, the readers) are involved in the transcendence of human-centred narrative through what I call delirium experience that features characters’ intense sensual perception and the collapse of rational cognitive body-self boundary facing and embracing the estranged non-human-centred world. Characters’ delirium experience

speculatively shapes readers' similar reading experience. Liu Cixin, as an "implied author" or the author as the literary mechanism performatively generated by text writing instead of the real author as a human in reality,³¹ applied his own delirium experience and deep emotions facing the imagined estranged world (partially from his own SF reading experience) to his SF writing through applying a separate writing style, macro-details (*hong xijie* 宏细节), which features large amounts of metaphors and sensual details to the depiction of SF novums and the plot relevant to them, making them grander and more vitalized than humans' world.

There are three theoretical contexts behind this argument: haunting, fetishism and cognitive estrangement. Overall, ghosts in Liu Cixin's two works are fundamentally different from the theoretical discussion of haunting in its non-human nature: Liu Cixin's ghosts' are not identified within humans' emotional, social or political relationships. In contrast, haunting in current theoretical context is regarded as a symptom within the realm of humans. For example, Freud proposed the concept of the "uncanny," which means the unexpected emergence of something that already exists and is repressed, such as childhood memory or trauma.³² Focusing on political ethics, Derrida's "haunting" proposed in the 1990s is a way to replace "ontology:" The latter refers to certainty and presence, while "hauntology" brings in the condition between presence and absence, with "ghost" as its symbol.³³ In *Spectres of Marx*, Derrida called for living with ghosts, or accepting those that are neither living nor dead, but always essentially in-between, those that never arrive, those that are "the other." This leads to the ghostly moment that belies the linearity of

³¹ James, Henry, "The Golden Bowl," in *Literary Criticism*, vol. 2. (New York: The Library of America, 1984), 1322. Cited by Stougaard-Nielsen, Jakob in "The author in literary theory and theories of literature," in *The Handbook of Literary Authorship*, (Cambridge: Cambridge University Press, 2019), 272.

³² Buchanan, Ian, *A Dictionary of Critical Theories*, "uncanny," <https://www.oxfordreference.com/display/10.1093/acref/9780199532919.001.0001/acref-9780199532919-e-720?rskey=tjknAk&result=720>.

³³ Davis, Colin. "Hauntology, Spectres and Phantoms." *French Studies* 59, no. 3 (2005): 373-374.

time.³⁴ In these two major theoretical streams, ghosts are always related to that which is repressed and omitted—something that already existed (at least in humans’ meaning and semiotic systems, such as Marxism); something that is an analytical model of humans’ structural defectiveness. Instead, although sharing the essence as the intrusion of the unknown (and unknowable), Liu Cixin’s ghosts are spirits without the dead, which means the spirits who do not ultimately belong to the identity of a body or corpse in the human realm.

Weapon fetishism shows an opposite attitude towards humans’ body-self, compared with mainstream fetishism theories. The term “fetishism” has two theoretical contexts. The Marxist “commodity fetishism,” borrowed from anthropology, means the belief in the naturality of the value of the commodity and the rationalization of investing labour into it.³⁵ In psychoanalytic contexts, fetishism is defined as the assignment of sexual meaning and desire to a non-sexual being, concerning and/or assuming a body-self connection.³⁶ In *Fantasies of Fetishism: From Decadence to the Post-Human* published in 2002, Amanda Fernbach systematically introduced important post-Freudian fetishism theories. Overall, they attempt to challenge the singular phallus-centred narrative in Freud’s text and create “new, non-normative subjectivities” by admitting the constructed and dynamic essence of the self through the transformation of the body into new forms

³⁴ Derrida, Jacques, *Specters of Marx: the state of the debt, the work of mourning and the new international*, trans. Peggy Kamuf (New York: Routledge, 2006), xvii-xviii, xix.

Derrida’s hauntology stems from his reflection on the political ethics in post-Soviet-Union times, about the spectre of Marxism that was claimed to be eliminated and how a new form of justice could be established when the end of history had been claimed to come, and the political self and other were divided (See Derrida, Jacques, *Specters of Marx*, Chapter 2.), but hauntology’s underlying logic about “admitting the existence of the unfamiliar” has been applied in other fields. For instance, in the 1997 Sociology work *Ghostly Matters: Haunting and the Sociological Imagination*, Avery Gordon pointed out that haunting is the way the socially and structurally repressed re-speak for themselves under the condition that they have been systematically cancelled (See Gordon, Avery, *Ghostly Matters: Haunting and the Sociological Imagination* (Minneapolis: University of Minnesota Press, 1997), xvi.).

³⁵ Buchanan, Ian, *A Dictionary of Critical Theory*, ³⁵ “Commodity Fetishism,” <https://www.oxfordreference.com/display/10.1093/acref/9780198794790.001.0001/acref-9780198794790-e-131#>

³⁶ Buchanan, Ian, *A Dictionary of Critical Theory*, “Fetishism,” <https://www.oxfordreference.com/display/10.1093/acref/9780198794790.001.0001/acref-9780198794790-e-246?rskey=Ybt4yP&result=256>.

through various devices that thus break the subject-object boundary.³⁷ Moreover, among these branches is “magic fetishism,” which traces back to the anthropological origin of fetishism and is referred to as the worship of an object with constructed magical power that could represent the “missing material presence of God,” isomorphic to the Freudian concept of fetish that replaces the mother’s missing phallus. Fernbach argues that such fetishism expects technology to make up for the imperfectness of human bodies and enables the latter to transcend their limits into technological heaven and/or immortality.³⁸ Specifically, Laurence Rickles identified military pilots’ fetishism for their planes as an extension of their bodies in the battle in order to overcome wartime anxiety.³⁹ Such embodied intimacy intuitively resonates with the intimacy with weapons in Liu’s four novels (especially Lin Yun’s case). In all the fetishism theories, humans’ body-subjectivity is the centre of discussion, the difference is to fixate on it or extend it to another material realm. However, weapon fetishism in Liu’s works is essentially an impulse to break and deny humans’ body-self.

The concept of cognitive estrangement proposed by Darko Suvin inspires my investigation of humans’ role in Liu Cixin’s transcendence of human-centred narrative. In *Metamorphoses of Science Fiction*, Suvin argued that SF is distinguished from other literature forms by such a “formal framework” defined by “the presence and interaction of estrangement and cognition, and whose main formal device is an imaginative framework alternative to the author’s empirical environment.”⁴⁰ Cognitive estrangement functions through “novums,” or the “strange newness” that is usually a SF innovation.⁴¹ According to Suvin, such a mechanism marked the core tension

³⁷ Fernbach, Amanda, *Fantasies of Fetishism: From Decadence to the Post-Human* (Edinburgh: Edinburgh University Press, 2002), 14.

³⁸ Fernbach, Amanda, *Fantasies of Fetishism*, 104.

³⁹ Rickles, Laurence A., *Crypto-Fetishism* (Minneapolis: University of Minnesota Press, 2002), 23-24.

⁴⁰ Suvin, Darko, *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre* (New Haven: Yale University Press, 1979), 7-8.

⁴¹ Suvin, Darko, *Metamorphoses of Science Fiction*, 4.

of SF writing between readers and the cognitive other.⁴² The notions of “novum” and “cognitive estrangement” help interpret the position and function of ghosts and weapons as the herald of unfamiliar space, and I will further this direction by pointing out *how* Liu’s two works construct cognitive estrangement through the *characters’* cognitive estrangement, in an innovative nesting doll structure.

Liu Cixin’s ghosts, fetishism and heaven-centred narrative are thus worth exploring because they simultaneously represent an innovative way to transcend human-centred narrative and a subtle and unconscious re-attachment of humanness through the conscious detachment from it. On the one hand, heaven-centred narrative shifts the ontological root of haunting and fetishism from humans to the non-human, making humans a temporary, instable and trivial phenomenon on the surface of the universe, while non-human space or universe becomes the permanent and dominating narrative gravity. On the other hand, haunting and fetishism are themselves intense cognitive experiences of humankind. Speculatively, the fact itself that *these* forms are used in the narrative may suggest a potential longing for the fullness of *humans’* cognitive experience that is deeply rooted in the rejection of normalization from *humans’* mundane life. This longing finally appears as the human characters’ extreme delirium facing another world approaching, projecting the author’s isomorphic cognitive experience and arousing that of the reader. The heaven-centred narrative is paradoxically achieved through humanness.

To summarize: Chapter One introduces the research subject: ghosts, weapon fetishism and non-human-centred narrative in Liu Cixin’s *The Three-Body* trilogy and *Ball Lightning* and argues for their interrelation. This chapter reviews relevant scholarship about haunting in Liu Cixin’s SF and examined theoretical background in haunting, fetishism and cognitive estrangement. Chapter

⁴² Suvin, Darko, *Metamorphoses of Science Fiction*, 64.

Two will discuss the three functions of ghosts in the trilogy and *Ball Lightning* as mentioned above, with a close reading of the opening and climax chapters and other key turning points where ghosts appear in the two works. Chapter Three will discuss weapon fetishism and its relationship with ghosts. Chapter Four will be on humans' nesting-doll structure of cognitive experience and its function in the forming of heaven-centred narrative.

Chapter 2: The Spiritual Flight (*Lingtai de feixing* 灵态的飞行): “Spirit Without The Dead”

This chapter discusses ghosts and how they function to establish a heaven-centred narrative in the *Three-Body* trilogy and *Ball Lightning*. Overall, ghosts are the herald from a grander and more vitalized non-human-centred space (the heaven-space mentioned in Chapter One) that runs on physics rules and dominates the human-centred space but not vice versa. In *Ball Lightning*, such space is the quantum macro-world; in the trilogy, it is the universe outside of the Solar System, the physics status of which is finally revealed to be dynamically constructed by the cosmic wars and conflicts. Appearing and functioning in key chapters (opening, climax, important turning points), such a separate space controls the human-centred story. This is what I call heaven-centred narrative. I will first define ghosts in Liu’s two works, after which I will analyze metaphorical ghosts as the warning of the intrusion of the non-human-centred space through the close reading of the third chapter of the first volume of the trilogy and the prelude of *Ball Lightning*. Then, I will move on to ghosts as the key manipulator of the human-centred narrative space, with the close reading of the chapters named after “*Yixiang* 异象 (strange phenomena)” or terms related to the macro-world in *Ball Lightning*.⁴³

Ghosts in the trilogy and *Ball Lightning* include literal ghosts (such as the quantum ghosts) and metaphorical ghosts (such as the stars and the couple allegorized as ghosts in Singer’s song). Overall, all the ghosts mean no more than the literal definition: the spirits of the dead (mostly, the text uses the word “*youling* 幽灵 (ghost)” and sometimes “*guihun* 鬼魂 (ghost),” both denote the literal meaning of “ghost” that is related to the dead).⁴⁴ But uniquely, they are spirits *without the dead*. “Spirits without the dead” metaphorically means that ghosts here are not ultimately

⁴³ This is also a function mostly limited to *Ball Lightning*.

⁴⁴ See “*youling* 幽灵[ghost]” and “*guihun* 鬼魂[ghost],” *Handian* 汉典, <https://www.zdic.net/hans/幽灵> and https://www.zdic.net/hans/鬼魂#google_vignette.

identified with and bound to elements from the human-centred narrative (characters, emotions, relationships, etc.). In contrast, either as a metaphorical symbol or the real spirits, the spiritual state that enables ghosts to be more omnipresent and freer always overpowers ghosts' previous human identities (if any).

The Heralds' Warning

The metaphorical ghost appears at the beginning of the trilogy, as the herald from Trisolarans who belong to the universe unknowable to humans. In the third chapter “The Shooter and The Farmer 射手与农场主” of the trilogy, the first-person narrator Wang Miao experienced “*youling daojishi* 幽灵倒计时 (Ghost Countdown):”⁴⁵ a countdown, which started from 1200:00:00, arbitrarily appearing only on the negative film of the photos he took. Being named “Ghost Countdown,” it then also appeared on Wang's retina.⁴⁶ As revealed in Chapter 34, “Sophon (*zhizi* 智子),” it was the proton-scale intelligent computer-controlled by Trisolarans that moved in and out on Wang Miao's retina and other surfaces in hyper-lightspeed, “waving” out the countdown.⁴⁷ Ghost, the spiritual state that transcends life and death, challenges the human-centred cognitive pattern that is built on the life-death dichotomy and the consistency between body, life and subjectivity. Such a metaphor appears when the boundary of Wang Miao's body—the retina—is broken by the intrusion of the estranged being that seems to have equal agency as him and cannot be controlled, influenced and predicted by him.

⁴⁵ The first volume of the trilogy.

This thesis is based on the 2008 Chinese version of the trilogy, which starts with Wang Miao's encountering with The Frontiers of Science. The English translation begins with Ye Wenjie's experiences in the Cultural Revolution.

⁴⁶ See Liu Cixin 刘慈欣, *Santi diqiu wangshi sanbuqu zhiyi* 三体·地球往事三部曲之一 [The Three-Body Problem: The First Volume of Remembrance of Earth's Past Trilogy]. (Chongqing: Chongqing chubanshe, 2008), 21-25, 30. It is “*Youling daojishi* 幽灵倒计时 (ghost countdown)” in the Chinese version, but the English translation omitted the “*youling* 幽灵 (ghost).” See Liu, Cixin, *The Three-Body Problem*, 131.

⁴⁷ See Liu Cixin 刘慈欣, *Santi diqiu wangshi sanbuqu zhiyi* 三体·地球往事三部曲之一, 290.

The Ghost Countdown is an in-advance warning of not only the arrival of an unknown alien civilization, but also the overall universe in which there exists a space where humans are not the centre, and where there are plots, emotions, relationships, and worldviews that humans cannot fully comprehend and control; this estranged space, in reverse, can nevertheless have significant impact on the narrative space of humans. In the trilogy, humans follow the ghost but finally only to find that the world behind it shapes their fate while they can only scratch the tip of the iceberg of it; humans are always overshadowed by the fear that physics—the pillar and basic rules of their world—is no longer permanent and reliable, which is finally proved to be true. At the beginning, in the first two chapters, the protagonist Wang Miao has indirectly touched on the crisis of the Trisolarans’ planned invasion step by step: in the first chapter, “The Frontiers of Science 科学边界,” he is taken to a secret meeting of the world’s military heads, being told about the mass suicide of physics scientists, who were mostly in touch with “The Frontiers of Science,” an organization that attempted to prove the limit of the knowability of human science, or that human science could not completely explain the natural world.⁴⁸ Among the dead was Ye Wenjie’s daughter, Dr. Yang Dong, who left an important death note: “Physics has never existed, and will never exist 物理学从来就没有存在过，将来也不会存在。”⁴⁹ The “frontier” of science (or the “boundary” of science), as indicated in the chapter title, death, and unknowability, are combined together as the prelude of haunting. In the next chapter, “A Game of Pool 台球,” Wang Miao learnt the truth of how physics “never existed” from Dr. Ding Yi: the results of the experiments in large hydron

⁴⁸ See Liu Cixin, *Santi diqiu wangshi sanbuqu zhiyi* 三体 • 地球往事三部曲之一, 6-9.

⁴⁹ Liu Cixin, *Santi diqiu wangshi sanbuqu zhiyi* 三体 • 地球往事三部曲之一, 9.

English translation: Liu, Cixin, *The Three-Body Problem*, translated by Ken Liu (Tor: New York, 2014), 100.

[https://readingservices.kobo.com/ReadNow/7322da03-2ced-4005-b290-](https://readingservices.kobo.com/ReadNow/7322da03-2ced-4005-b290-8bb38d5d2d76?utm_content=cover&backref_url=https%3a%2f%2fwww.kobo.com%2fca%2fen%2flibrary%2fbooks)

[8bb38d5d2d76?utm_content=cover&backref_url=https%3a%2f%2fwww.kobo.com%2fca%2fen%2flibrary%2fbooks](https://readingservices.kobo.com/ReadNow/7322da03-2ced-4005-b290-8bb38d5d2d76?utm_content=cover&backref_url=https%3a%2f%2fwww.kobo.com%2fca%2fen%2flibrary%2fbooks).

colliders under exactly the same conditions became randomly different, showing that physics rules are not consistent among time and space, which caused the mass suicide of scientists.⁵⁰ Despite the indirect knowledge retold by others, in the third chapter, “The Shooter and The Farmer 射手与农场主,” Wang Miao directly faced the disappearance of physics for the first time. Before the “Ghost Countdown,” Wang Miao thought of the story of “The Shooter and The Farmer,” about how the “physics rules” discovered by less advanced creatures are actually random traces or arbitrary rules from the advanced creatures: a turkey scientist proposed a “universal law” that turkeys will get food every morning at ten o’clock, but this rule is broken when the farmer who feeds them every day kills all the turkeys on Thanksgiving Day; a shooter leaves bullet holes every 10 centimetres on the gun target, making the two-dimensional creatures on the gun target believe that there are holes every 10 centimetres in the universe.

Literally, at the end of the countdown is just the manipulation of Trisolarans, not the collapse of physics. But as its isomorphism, after the climax—the apocalypse of the Solar System led by Singer’s ghostly song—the collapse of physics is proved to exist. Step by step, from the “surreal” phenomenon generated through Sophon, to the Dark Forest state of the universe that is not unveiled until the end of *The Dark Forest*, the second volume of the trilogy, humans always resemble the turkeys in the story. Finally, in *Death’s End*, starting with Singer’s attack, “more than six centuries after Luo Ji had fallen through ice into that lake, another dark veil hiding the truth about the universe was lifted before the gaze of one of the only survivors of Earth civilization 在罗辑掉入寒夜中的冰湖六个多世纪后，在地球文明仅存的人类面前，宇宙黑暗的面纱又被揭开一

⁵⁰ Liu Cixin 刘慈欣, *Santi diqiu wangshi sanbuqu zhiyi* 三体 • 地球往事三部曲之一, 17.

层。”⁵¹ This time, according to Dr. Guan Yifan from the new cosmic civilization established by humans who escaped before the first formal invasion of Trisolarans, Dark Forest Rules are just the tip of the iceberg of the chaotic universe, where there are far more complex cosmic wars (lowering dimensions is one of the important attacking methods), and physics laws could be manually changed for wars. Therefore, the Ghost Countdown opens a haunting in the narrative structure. A systematized mechanism that makes the presence of the non-human universe spread across the whole story and humans be pushed to the narrative corner from the beginning to the end by it. This recalls some narrative patterns. For example, Cara Healey cited the concept of “Forgetfulness Pattern” to describe the narrative mode in SF in which protagonists explore the unknown physics laws in their world, getting piece-by-piece information about a forgotten world.⁵² But again, ghosts in the trilogy make the narrative a cognitive reversion, where the characters know more and more about the universe, only to finally find that their world is not theirs and they cannot fully know and control it. There may not finally be a fixed and complete “forgotten world;” ghosts are not the instrumentalized signs that lead the protagonists to complete their worldview, but the vitalized herald that intrudes in and reveals the existence of the worldview beyond humans’.

Ball Lightning also begins with the metaphorization of ball lightning as ghosts. Narrated from a first-person angle, this metaphorical ghost both declares the presence of the macro-world and allures the human character to explore the macro-world, detaching his emotional and cognitive bond in humanness. The prelude of *Ball Lightning* is Dr. Chen recalling the night of his thirteenth

⁵¹ Liu Cixin 刘慈欣, *Santi san Sishen yongsheng* 三体 III • 死神永生, 470. Liu, Cixin, *Death's End*, translated by Ken Liu (Tor: New York, 2014), 1166.

⁵² Caroti, Simone, *The Generation Starship in Science Fiction: A Critical History, 1934-2001* (Jefferson, NC: McFarland, 2011), 15. Cited in Healey, Cara, "Madmen and Iron Houses: Lu Xun, Information Degradation, and Generic Hybridity in Contemporary Chinese SF." *Science-Fiction Studies* 46, no. 3 (2019): 513.

birthday, when his parents suddenly die under the ball lightning that intrudes into their house. Here, the ball lightning is allegorically compared to ghosts:

This time, though, the arc came in through the wall, emerging like a spirit from the oil painting of a carnival of the Greek gods.....

It whistled as it floated, a deep tone pierced with a sharp high whine, calling to mind a spirit blowing a flute in some ancient wasteland.⁵³

Since it is the very first depiction of the first appearance of ball lightning, “*youling*” here is the warning of the non-human-centred space in the narrative structure (this world incarnates as the macro-world in *Ball Lightning*), similar to the Ghost Countdown. Compared with Ghost Countdown, the ghostly sound of ball lightning in the paragraph quoted above is allegorically located in an “ancient wasteland.” “Ancient” brings out another dimension of time that is independent of the present time in the human-centred narrative (Dr. Chen’s life experience); “wasteland,” correspondently, generates another metaphorical spatial dimension. Both dimensions present grander span and width than that of reality—a narrow room and a transitory moment when the living becomes dead (in humans’ cognition). Such a contrast, together with the spectrality, foresees the non-human-centred macro-world before it is formally introduced in the middle of the novel.

It is ghosts that also enchant Dr. Chen to cognitively and emotionally attach to the non-human world, away from humans’ emotional relationships. For example, the text spatially connect the metaphorical ghost to an oil painting, which is possibly Titian’s 1520 work, *The Bacchanal of*

⁵³ Liu, Cixin, *Ball Lightning*, translated by Joel Martinson (Tor: New York, 2018), 15.

Original Chinese text: 这时它来了，是穿墙进来的，它从墙上那幅希腊众神狂欢的油画旁出现，仿佛是来自画中的一个幽灵……那啸叫低沉中透着尖利，让人想到在太古的荒原上，一个鬼魂在吹着埙。

Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 3.

“*Youling* 幽灵(ghost)” is translated as “spirit” in the English version.

the Andrians, which depicts the carnival of Dionysus and other Greek gods.⁵⁴ As François Quiviger pointed out, this painting is important in the origin of Western erotic art style.⁵⁵ The text specifies that it is about a “carnival.” Carnival also points to a state where one transcends the limits and boundaries lying in the individual body in the grand joy beyond. This can be traced back to theoretical backgrounds. George Bataille links carnival/orgy to the impulsive transgression of individuality, prohibitions and social orders through the loss of self and consciousness in the carnival rituals.⁵⁶ Similarly, Mikhail Bakhtin proposed the concept of carnival in literary criticism to describe the literary space where hierarchy, laws and restrictions, and/or the separation and individualization among people are overturned, and the self-closing is replaced by the opening gesture.⁵⁷ Based on the Greek tradition of carnival of Dionysus’ believers, Nietzsche describes the Dionysian spirit as the moment when individuality and reason break down, which generates a sense of horror, and one then participates in the grand carnival by dissolving into the grand above.⁵⁸ The combination of ghost and carnival transfers the agency from the three humans to ball lightning by vitalizing it as a gesture of overturning, opening and transcendence. This is also reflected in the final words of Dr. Chen’s father left right before being killed by ball lightning: “the key to a wonderful life is you getting enchanted by something 美妙人生的关键在于你能迷上什么东西.” Along with his death right after those words, “obsession” and “enchantment” with ball lightning

⁵⁴ Bertos, Rigas N, "A Short Note on the "Bacchanal of the Andrians", " *Mitteilungen Des Kunsthistorischen Institutes in Florenz* 20, (1976): 408-410.

⁵⁵ Quiviger, François. "Drunkenness, Sex and Desire in Titian’s *Bacchanal of the Andrians*," in *Images of Sex and Desire in Renaissance Art and Modern Historiography* ed. Angeliki Pollali and Berthold Hub (New York: Routledge, 2018), 169.

⁵⁶ Bataille, George, *Death and Sensuality: A Study of Eroticism and the Taboo* (New York: Walker and Company, 1962), 112-113.

⁵⁷ Bakhtin, Mikhail, *Problems of Dostoevsky's Poetics*, translated by Caryl Emerson (Minneapolis: University of Minnesota Press., 1984), 122-123.

⁵⁸ Nietzsche, Friedrich, *The Birth of Tragedy*, translated by Douglas Smith (Oxford: Oxford University Press, 2000), 22-23.

become the core of Dr. Chen's story—which is the novel itself.⁵⁹ At the end of the prelude chapter, Dr. Chen recalled:

A week later, when my mind had mostly returned to normal, the first thing I remembered was that it had happened on my birthday night. There should have been one candle on the cake—no, no candles at all, because on that night my life started anew. I was no longer the person I once was. Like Dad had advised in the last moments of his life, I was now fascinated with something, and I wanted to experience the wonderful life he had described.⁶⁰

Ending with a gesture of chasing a refreshingly new life, the prelude highlights the enchantment from the non-human centred world, which prevails Dr. Chen's humanly emotional connection to his parents. Such a gesture further anchors the narrative gravity onto the non-human world. If agency and vitality of ball lightning are just the traumatic intrusion that breaks the characters' cognitive subjectivity,⁶¹ the text is still human-centred, because the meaning and essence of ghosts are still defined upon the characters' experiences. But conversely, the ghostly ball lightning is a call from a more vitalized world, compared with which the characters' world is no longer important. The text does not depict too much about Dr. Chen's sadness at losing his parents but instead focuses more on how he experienced the absentminded and enchanting moment facing the ball lightning. Therefore, from the very beginning, the spectralized ball lightning is depicted as a guide and temptation beyond death, in which lies the initiative. Thus, generating this narrative derivation

⁵⁹Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 2.

⁶⁰ Liu, Cixin, *Ball Lightning*, 20.

See original Chinese text: 当一个星期后我的精神基本恢复正常时, 记起来的第一件事就是那夜是我的生日之夜, 但那个蛋糕上应该只插一根蜡烛, 哦不, 一根都不插, 那是我的新生之夜, 以后的我再也不是以前那个我了。

像爸爸在生命的最后时刻说的那样, 我迷上了一样东西, 我要去经历他所说的美妙人生了。

Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 5.

⁶¹ See Dories, Jeff, "Decentring Anthropocentric Narcissism," 120-121. According to Dories, ball lightning in the novel is supernatural and uncanny with agency from the natural world; as a literary imagery, it serves as the traumatic trigger of Dr. Chen that changed his personality. Similar haunting also happened when Ye Wenjie witnessed the trees being cut down. Both accidents made Dr. Chen and Ye Wenjie detached from their absolute subjectivity as humans.

towards the non-human world, the metaphorical ghost here becomes a “spirit without the dead” that is from and identified with the non-human space; it meanwhile opens and guides humanity’s story. Spectrality thus released a potential agency of the ball lightning as part of the text.

In *Ball Lightning*, the ghost as the herald goes step by step into the human characters’ life and fate in chapters named after “Strange Phenomena,” furthering the structure (and therefore the domination) of haunting along the non-human centred space. The second chapter, “Strange Phenomena I,” and the sixth chapter, “Strange Phenomena II,” suggest that Dr. Chen’s parents quantum ghosts and the quantum ghost of his supervisor Zhang Bin’s wife, Zheng Min, use to return and leave traces, such as the house being cleaned and the notes being modified.⁶² In “Strange Phenomena III,” quantum ghosts directly show their existence. After the animal experiment of weapons developed on ball lightning, the goat’s bleat appears at the experiment venue, showing that the goat that should have been dead in the experiment is “alive” in an unknown state. As the text specifies, the sound, just like the sound of ball lightning explosion, fills the space and even seems to come from inside the listener’s own body; Dr. Chen feels as if being gripped by a huge invisible hand,⁶³ further showing the power relationship between the non-human world and humans. Besides, in addition to the metaphorical ghosts in the prelude and “The Shooter and The Farmer” in the trilogy that suggesting the breaking of human characters’ body boundaries, the characters’ experience of real ghosts here directly intrudes into and occupies the characters’ bodies from inside, further claiming the presence of another world that humans do not know and are

⁶² Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 8-9, 11, 41.

⁶³ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 172.

Jeff Dories also notices Dr. Chen’s uncanny and sublime experience facing the quantum ghosts and the ball lightning in the prelude, pointing out that ball lightning gains agency. But Dories does not further connect these cases to a systematic and concrete narrative structure.

See Dories, Jeff, “Decentering Anthropocentric Narcissism,” 121-123, 125.

unable to control. And in fact, ghosts are not just the “messenger” from the macro-world but also an active plot manipulator and even dominator, which is ghosts’ second function in *Ball Lightning*.

The Manipulator from Above

In *Ball Lightning*, quantum ghosts determine the direction of the story at key junctures. As mentioned in Chapter One, since quantum mechanics work in macro-world environments, the target (objects or living beings) attacked by macro-atomic or macro-electronic weapons will become macro-quantum due to the resonance of matter waves. Quantum ghosts are between life and death in the quantum superstition state: when there are observers, quantum ghosts of the attacked target will “collapse” into the destroyed state. Otherwise, they might be in a living state and could uncertainly appear anywhere,⁶⁴ with knowledge of the macro-world that is inaccessible to humans (see below), making them omnipresent and seeing humans’ world from above.

The first turning point is the prelude (literally generated by both the metaphorical ghost and the emergence of real quantum ghosts). Witnessing the strange death of his parents, Dr. Chen decided to live a new life and do research on ball lightning, which opens the whole story. The second turning point appears in the chapter “*Xian* 弦(String),” the fifth chapter of the third (also the final) section of the novel. This chapter presents a three-stage rhythm that almost isomorphically encapsulates the whole novel, which suggests its importance in the whole narrative structure. “String” begins with the funeral of Dr. Chen’s master supervisor, Zhang Bin, who spent much of his life on ball lightning research and whose wife died under ball lightning. Obeying his death note, an artificial ball lightning flies over his body during the funeral, with “that deep *xun* music (低沉的埙乐)” which is a callback of the ghostly sound of ball lightning in the prelude (“a

⁶⁴ For example, if one died, then their destroyed state is where and how the corpse should be. If electronic chips are attacked by ball lightning designed to attack them, their destroyed state is burnt ashes. See Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 190.

spirit blowing a flute in some ancient wasteland 在太古的荒原上，一个鬼魂在吹着埙”).⁶⁵ Just like the beginning of the whole novel, the ghostly ball lightning floats over the dead body. Then, the text turned to Lin Yun and Ding Yi's conversation about the life choices given that the R&D of ball lightning weapons has been stopped since the enemy worked out the way to forestall them and got an overpowering edge in the war.⁶⁶ Lin Yun insists that she must stay in the army and rejects Ding Yi's invitation to leave and do other research with him, which suggests that Lin Yun is kept under the shadow of the macro-world and getting closer to her fate of becoming part of it. This corresponds with Dr. Chen's determination to research ball lightning in the prelude. Then, on the tombstone appears Zhang Bin's wife, Zheng Min's handwriting: a complete mathematical model of macro-atoms and the specific volume of acceleration that could be added to macro-atoms to cause macro-fusion, based on which Lin and Ding found the macro-nucleus and invented macro-atomic bomb that enables China to win the war.⁶⁷ This corresponds to the upcoming climax: Lin Yun launching the bomb. In such an isomorphism of the whole story, the core is the quantum ghost proactively conveying to humans the knowledge that they themselves cannot independently master. Thus, although carving on her past husband's tombstone, a symbol of death and home that ghosts should *return to*,⁶⁸ nearly shows a human-centred emotional lingering, it is actually a reversal parody: quantum ghosts not only know advanced knowledge (physics rules in macro-world) and use it to dominate the fate of humans, but also know it *because* they are quantum ghosts that live in the quantum macro-world and thus are familiar with it.⁶⁹ In that case, just like how ball lightning enchanted Dr. Chen, quantum ghosts (and the macro-world behind them) are the dominating factor

⁶⁵ *Xun* and flute here are both “埙” in the original Chinese text.

⁶⁶ See the previous chapter “Ambush at Sea” in *Ball Lightning*.

⁶⁷ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 230.

⁶⁸ See the theoretical discussion in the next section.

⁶⁹ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 231-232.

in the narrative, not human characters. A heaven-centred narrative is thus structured by the domination of the non-human space.

Besides, through the herald-like behavior of quantum ghosts, macro-world begins to show its own worldview instead of just remaining as a singular setting: how do quantum ghosts observe their world and learn? Why does Zheng Min's ghost decide to tell humans the mathematical model of macro-atoms and the specific speed of atoms in the fusion? If she does so just to help humans win the war (a human-centred emotional motive), why does she specially mention the specific speed of atoms in the fusion at the bottom of the tombstone and then writes that she is afraid (even though a macro-atomic bomb can be set to just target on mere objects such as chips, like the bomb Lin Yun launched)? Is there any unknown emotional mechanism that only quantum ghosts could understand behind such a self-contradictory attitude? If so, how do they sense, feel and reason? Do they have their own ethics and philosophy? These questions included behind Zheng Min's behavior are never answered and never able to be answered by the text, thus beginning to delineate a realm above humans.

If the message left by Zheng Min primarily unveils the existence of another space with its own worldview and emotional relationships, then Lin Yun's quantum ghost moves a step forward and directly shows that such a non-human-centred space is not completely comprehensible and knowable to humans. This worldview-building is crystalized by Lin Yun's quantum ghost, who did not collapse with many observers present, breaking humans' theoretical model of quantum ghosts based on humans' quantum physics.⁷⁰ The text just proposed a hypothesis that a human's quantum ghost has an observer from inside that confronts the observation from outside, which is the ghost's own consciousness,⁷¹ but is never finally able to validate it. Even though the *Three-*

⁷⁰ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 255.

⁷¹ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 269.

Body trilogy clearly mentions Lin Yun, the ball lightning technology discovered in the prequel, and the utilization of quantum ghosts to attack the Trisolaris Fleet, showing a certain technological progress between the trilogy and its prequel, the reason why Lin Yun's quantum ghost does not collapse remains unknown throughout the four novels.⁷² In that case, the narrative of *Ball Lightning* presents a closed circle: it begins and ends with the ceremony-like moments of humans becoming ghosts, and both the moments are related to the crucial change of the story. Ghosts, on the other hand, come and go, leaving endless riddles to humans.

In summary, in *Ball Lightning*, ghosts gradually show their existence, dominate the plots, and finally reveal the existence of the non-human-centred space behind them, from which they are able to omnipotently and omnipresently influence humans' world, but the latter cannot know and control the ghosts' world. Through this relationship, humans are no longer at the centre and dominating position in the overall narrative structure of the novel.

Becoming Ghosts

In addition to manipulating the narrative, ghosts also transform characters into ghosts, or, in essence, change the characters' identity roots and potentially also readers' cognitive understanding from the human-centred space to the non-human-centred space, through which the narrative centre is also dragged to the latter. This transformation happens at the climax of both *Ball Lightning* and the *Three-Body* trilogy (the latter will be discussed in Chapter Three).

Lin Yun becoming the quantum ghost as the climax of *Ball Lightning* significantly further breaks the balance between non-human and human-centred space. Overall, before this transformation, Lin Yun's active and dominating behaviors keep the agency of the two narrative

⁷² See Liu Cixin 刘慈欣, *Santi Diqiuwangshi sanbuqu zhiyi* 三体·地球往事三部曲之一, 294; Liu Cixin 刘慈欣, *Santi er heian senlin* 三体II·黑暗森林 (Chongqing: Chongqing chubanshe, 2008), 173-175. Lin Yun and quantum ghosts are mentioned, but the text does not (or could not) further reveal the physics (if any) behind quantum macro-world.

spaces relatively balanced, but after she becomes a quantum ghost, the human story shrinks into a vague, simple and mundane state, while the non-human-centred space, or the quantum macro-world, completely becomes the heaven-like upper world hanging over the human characters' life. Furthermore, although Lin Yun becomes a quantum ghost only near the end of the novel, this is just an ultimate anchor of her spectrality that systematically pervades the whole novel (in the context of this thesis, spectrality means the quality that a being is not identified with and does not essentially belong to human-centred space), with "Lin Yun I" and "Lin Yun II" as examples; these two chapters can be regarded as essentially belonging to the non-human-centred space.

Spectralizing Lin Yun means spectralizing the core of the human story. Lin Yun is the earnest seeker of ball lightning in the novel, and thus the one among human characters who essentially leads and promotes the development of plots. She directs the ball lightning research program in the army that provides the material conditions for scientists like Dr. Chen and Ding Yi; she initiates several audacious and important explorations in the research on ball lightning, such as hacking into the SITE@home website and utilizing the supercomputer connected to its server to accelerate the calculation and using her political privilege and personal influence to initiate and keep the experiments of the macro-atomic bomb.⁷³ Dr. Chen joined the program because of her; her personal history and emotions shape her, and she shapes the whole story. Besides ball lightning, she is the most crucial character in the novel, and apparently at the core of the process of transcending the human realm.

Lin Yun's quantum ghost presents a detached, liberated, and non-obsessed mental state, which is an important sign of her identity choice between the human realm and the non-human space. In "Lin Yun II," after peacefully telling her father the reason why she becomes crazy about

⁷³ See the eighth chapter of the first section and the sixth chapter of the final section of *Ball Lightning*.

weapons and her childhood trauma, “she appeared to feel some sort of release, even as her listeners remained in shocked silence 当其他人都因此震惊而沉默时，她显然感到了一种释然。”⁷⁴ The text highlights the two opposite attitudes, suggesting that Lin Yun’s trauma and obsession have been appeased and buried with her past along with her human-state body, and Lin Yun as a quantum ghost is liberated now; her serenity may also contain some emotions that humans cannot fully comprehend, just like Zheng Min’s motivation to tell humans the mathematical model of macro-atoms. Without the heavy burden, she lightly enters the world above and embraces new, undefined and incomprehensible personalities and emotions. In the final chapter, Lin Yun’s quantum ghost left the blue “quantum roses” in Dr. Chen’s bedroom—in whatever form, as a ghost, she gained more physical and mental freedom to express her affections. Interestingly, as a human, the text does not show any signs that Lin Yun has feelings for Dr. Chen, making readers wonder: what are emotions and personalities in the non-human-centred macro-world like? How are they formed? What are the stories of ghosts in their own world? Besides, because the promotion of the plots is established upon Lin Yun’s proactive and obsessive actions, and these actions are motivated by her strong personality, when this basis is changed (or touched by the ghosts’ world), the pillar of the human-centred space is gone, and the ghosts’ non-human-centred space completely overpowers the former.

Quantum ghosts’ independent life and worldview are also shown in their photos. In “Strange Phenomena II,” the sixth chapter in the first section of *Ball Lightning*, Zheng Min in her photo is much older than her actual age, holding a floppy disk that appeared after her era.⁷⁵ In the final

⁷⁴ Liu, Cixin, *Ball Lightning*, 579.

Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 267.

⁷⁵ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 42.

Jeff Dories also noticed Zheng Min’s photo as a signal of the quantum world, but did not give systematic analysis of the motivation of this narrative mechanism: the unexplained mechanism of the quantum world and the potential power relationship built through this “unknowability.”

chapter, Lin Yun, in her photo, is a teacher together with the children who died under ball-lightning weapons in a terrorist attack.⁷⁶ Clearly, both photos show their life in the quantum world, through which the text deliberately creates a blank of the physics rules in the quantum world that can never be figured out by humans (just like the unexplained mechanism of Lin Yun's quantum ghost staying un-collapsed), generating a looking-up perspective on humans' side, making the non-human-world grander, mystified, and consequently the more cognitively and more vitalized, dimensional and centred existence.

Lin Yun is doomed to be a ghost; she does not just belong to the human world, which makes the latter potentially weaker and more monotonous from the beginning.⁷⁷ Thus, her potential spectrality overshadows the whole novel from the beginning with the non-human-centred space. "Lin Yun I," the fourth chapter in the first section, which is about Dr. Chen first meeting Lin Yun at Mount Tai, is a key example; it is also partially a structural mirror of "Lin Yun II" as the climax. Just like "Lin Yun II," the very anchor and core is the serenity surrounding Lin Yun, based on which is the abnormal non-human affect that distinguishes her from other people (Dr. Chen) and the environment. Just as Dr. Chen describes, Lin Yun first catches his eye because of her significant difference from other visitors. Unlike their tiredness and heaviness, Lin Yun has a "serene expression" on her face without "sign of fatigue;" her body seems weightless, in contrast with other tourists' "short, strenuous breathing."⁷⁸ This is a contrast between lightness and heaviness, between the beings bound by humans' body and belonging to the human world and the being that belongs to the light world above humans.' Lin Yun's first name "yun 云(cloud)" is also

See Dorries, Jeff, "Decentering Anthropocentric Narcissism," 122.

⁷⁶ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 275.

⁷⁷ In fact, losing Lin Yun makes the protagonists' world completely reveal its mundane and monotonous essence. Ding Yi embraces an emotional life, and Dr. Chen gets married with his college classmate. See the final chapter, "The Quantum Rose (liangzi meigui 量子玫瑰)," in *Ball Lightning*.

⁷⁸ Liu, Cixin, *Ball Lightning*, 60-61.

another suggestion of this essential difference and her connection to the macro-world. Firstly, this character echoes the term “*gailv yun* 概率云(Probability Cloud)” that means the spatial range within which a quantum ghost could appear, which suggests Lin Yun’s fate to become a quantum ghost.⁷⁹ Secondly, clouds are light, and they belong to the sky—the space above humans’ daily scope of activities, so clouds are also literally connected to the archetypal above. Lightness also corresponds with the weightless spiritual state of ghosts, strengthening this correlation. Thus, in this chapter, Lin Yun accordingly wears all-white, “like condensed fog 像一道浓缩的白雾,” which puts her on the same side of clouds and fog (and thus the world above) on Mount Tai; she easily and lightly climbs to the top, leaving the tired and heavy people (or humans) behind (Dr. Chen also “dragged my heavy fleet 拖着沉重的步子”).⁸⁰

In fact, the dichotomy between sky/heaven and the earth/mundane, light and heavy, above and below, human and non-human, is the key to the structure of the whole chapter. In this case, “heaven-centred narrative” acquires a consistency between its name and content. In the beginning, Dr. Chen starts climbing Mount Tai to get to Yuhuang Peak Meteorology Station at the top, to collect data on lightning for ball lightning research because there used to be witnesses of ball lightning there. This makes Mount Tai a direct connecting point to the non-human-centred macro-world. Besides, Dr. Chen starts at Zhongtian Gate 中天门 (Gate of Middle Heaven), and her destination is at Nantian Gate 南天门(Gate of South Heaven),⁸¹ and these two names also echo “the above.” Hence, Mount Tai here becomes a materialized spatial metaphor: the bottom belongs to humans’ world, and the top belongs to the non-human-centred space, and the crucial plots all

⁷⁹ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 165.

⁸⁰ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 23.

⁸¹ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 22.

happen at the top, which, along with Lin Yun's existence, further drags this chapter into the non-human-centred space. Then, Dr. Chen mentions that "The fog was sick, and the trees on the other side were indistinct shadows that extended upward before vanishing into white. From time to time, stone inscriptions from past eras loomed into view 这时山上雾很浓，两边的丛林都呈一片模糊的黑影，向上延伸一小段距离就消失在白雾中。在远处，过去各个时代的石刻不断地显现又隐去。”⁸² Firstly, fog and cloud have the same origin and fog can be seen as the extension of clouds. From the moment fog appears in the text, the non-human-centred space begins to overshadow the text. Secondly, Dr. Chen's scanning and passing the stone inscriptions (from humans' history) reflects his current detachment from the human world when he enters Mount Tai, and the human world became encapsulated, abstract and vague at this moment, meaning that Dr. Chen's cognition has been separated and distant from that human world.

The climax and centre of this chapter is Lin Yun's conversation with Dr. Chen at the top of Mount Tai on the next day:

The way thunder rocked the peak was an entirely different experience from what I'd been through on the ground, as if Mount Tai was a lightning rod for the earth that attracted a universe worth of lightning. Sparks flashing from the rooftops made you tingle all over. With hardly any gap between lightning and thunder, massive rumbles shook every cell in your body until you felt that the mountain beneath your feet had been blown to bits and your soul displaced, flitting terrified between the dazzling bolts with no place to hide.....

.....

"You'd better stand over here. It's dangerous, and you'll get soaked!" I called to her. She shook out of her lightning reverie and retreated two steps. "Thanks." She turned to look at me, and beamed. "You may not believe it, but it's only at times like these that I feel any sense of security."

⁸² Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 22.

Strange: normally you had to shout to be heard under thunder, but even though the woman spoke softly, her gentle tones somehow penetrated the peals of thunder so that I was able to hear her words clearly.⁸³

Thunder, ball lightning, and macro-atomic fusion are linked under the same thing: the macro-world; the top of Mount Tai is spatially and symbolically the core of the non-human-centred space in this chapter. This also speaks to its cultural meaning in Taoism as the connection between heaven and hell.⁸⁴ First of all, Dr. Chen has an intense bodily experience at this thunderous moment. His experience of soul displacement and floating outside of his body echoes his feeling of the sound of the quantum ghost coming from inside his body, and both speak to the intrusion of ghosts and their space into humans' subjectivity and cognition.

Secondly, at this central stage, Lin Yun feels “*anjing* 安静 (serene)” and emphasizes that only at *such* moments can she acquire such feelings. “Such moments” here are the moments she is away from humans and close to the calling from the non-human-centred world. This once again echoes her feeling of “*shiran* 释然 (release/relieved)” after becoming a quantum ghost, and both

⁸³ Liu, Cixin, *Ball Lightning*, 68-69.

See original Chinese text: 山顶上雷暴的震撼力是山下无法相比的，这时的泰山好像是地球的避雷针，仿佛把宇宙间所有的闪电都吸引过来了。屋顶上闪着电火花，让你浑身一阵阵麻木。这里的闪电与雷声之间几乎没有间隔，那一声声巨响震撼着你的每一个细胞，你感到脚下的泰山被炸得粉碎了，灵魂也被震出了躯壳，恐惧地飘荡在一道道雪亮的闪电之间无处躲避……

……

“你最好往里站站，那里不安全，再说都淋湿了！”我在后面对她喊。

她从对雷电的陶醉中回过神来，向后退了两步。

“谢谢，”她扭头看了我一眼，动人地一笑，“你可能不相信，只有这时，我才感到片刻的安静。”

很奇怪，在这密集的雷声中，你说话必须大声喊别人才能听清，然而她只是轻轻地说出口，那轻柔的话音却奇迹般地穿透这声声巨响，我听得清清楚楚。

Important difference: the final word “*anjing* 安静” means serenity, not security.

⁸⁴ For example, the Taoist deity, *taishan fujun* 泰山府君 (Lord of Mount Tai), is regarded as the predecessor of *yanluo wang* 阎罗王 (King of Hell). See Liu Ying 刘影, “Taishan fujun yu yanluowang gengti kao 泰山府君与阎罗王更替考 [The Study on The Transition from Lord Mount Tai to King of Hell],” *Huadong shifan daxue xuebao* 华东师范大学学报, no. 3 (March 1999): 35-36.

highlight that Lin Yun finds her place not in the human world but in the ghosts' world. Lin Yun's serenity is accompanied by detachment. At this moment, she is detached from humans' basic bodily sensual reactions, such as avoiding physical danger. Instead, she indulges in close contact with thunder. Secondly, she speaks *gently* under the thundering sound, which also differs from basic human communication habits. Dr. Chen hearing her clearly (more than the thunder) is also the text suggesting that Lin Yun is part of the thundering world instead of a member of humanity, and that, through Lin Yun, Dr. Chen is temporarily dragged into this world as well. Continuing this tendency, when Lin Yun asks him if he hates ball lightning, his answer is no (as I suggested in the last section). In contrast, Dr. Chen says that ball lightning is a gate towards another world, where he can witness marvellous things he dreams of.⁸⁵ Here, his cognitive anchor completely falls into the side of the non-human world, further aggravating the tilting of gravity to the side of non-human world in the narrative structure.

Therefore, the cases of Lin Yun and Zheng Min as quantum ghosts are a reversion of the common theoretical pattern about ghosts mentioned in Chapter One. In critical theories, either Freud's uncanny or Derrida's hauntology, ghosts and haunting are essentially the untimely presence of the repressed and their dwelling in the human-centred social and cultural structure. Culturally, ghosts are usually connected to the archetype of "return-appeasing," which assumes ghosts as a redundant and disturbing spiritual attachment to the living human world (that is not a reference to independent beings with equal agency); they should return to the right home and will be appeased after that.⁸⁶ However, in *Ball Lightning*, ghosts acquire serenity (as well as more agency and possibilities) *after* death and *leaving* the human world. Not only do ghosts have their

⁸⁵ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 30.

⁸⁶ Zeitlin, Judith, *The Phantom Heroine: Ghosts and Gender in Seventeenth-Century Chinese Literature* (Honolulu: University of Hawai'i Press, 2007), 4.

own independent world, but also this world overpowers the human world. This is how Liu Cixin's ghosts are innovative and anti-anthropocentric. Meanwhile, compared to relevant scholarship discussed in Chapter One, such as Mingwei Song's discussion on the "grand sublime" in Liu Cixin's works and David Wang's "*you an yi shi* 幽暗意识 (dim consciousness)," which points to but does not fully identify the existence of an imagined literary space independent of and grander than human characters' story in Liu Cixin's SF, this chapter systematically reveals its essence (a specific narrative structure and a non-human-centred space as its carrier) and functioning mechanism.

Conclusion

This chapter discussed ghosts' function in the text's attempt to transcend the human-centred narrative and generate a more powerful non-human-centred narrative identified closely with a heavenly space. In the first section, I analyzed ghosts as metaphorical signals of the approaching non-human-centred space, with *Ghost Countdown* and the prelude of *Ball Lightning* as cases. The second section focused on (quantum) ghosts as the dominating plot manipulator in *Ball Lightning*. The third section moves on to the mechanism of "becoming ghosts" in *Ball Lightning*. However, the third function, "becoming ghosts," still needs further investigation together with a specific textual mechanism: weapon fetishism, which is the topic of the next chapter, in which I will further discuss Lin Yun's obsession with weapons and bring in the case of *Singer* and *Dual-Vector Foil*.

Chapter 3: Love After Death's End: Weapon Fetishism and Becoming a Ghost

This chapter focuses on weapon fetishism and also discusses how it functions as a key part of “becoming a ghost” – the third function of ghosts analyzed in Chapter Two. Besides further discussing Lin Yun’s case, this chapter will also introduce a complete case of non-human-centred space and how it is enhanced by weapon fetishism and spectrality. This case shows that Liu Cixin’s spectralization is not just making humans ghosts, but also a change of narration pattern from humans’ story to ghosts’ story. The concept of weapon fetishism describes the sensual intimacy between characters and weapons that is beyond the instrumental functions of weapons as SF novums, including physical intimacy with and aesthetic appreciation of weapons. In this chapter, the focus shifts away from the overall narrative structure discussed in Chapter Two to the analysis of specific textual details of weapon fetishism as a part of the affect of spectrality.⁸⁷ Weapons appear as part of the non-human-centred space, dragging characters from the human story to the ghostly non-human-centred other side. In *Ball Lightning*, Lin Yun’s obsessive intimacy with weapons is the trigger (and allure) of her suicide that makes her a quantum ghost, as well as a thread throughout the novel that further marks her potential spectrality. In the chapter “Bunker Era Year 67” in *Death’s End* (the third volume of *Three-Body* trilogy) -- the only chapter narrated directly from the non-human centred perspective and also the key chapter that tells how the Solar System is discovered and will be eliminated, weapon fetishism surrounding the spatial weapon Dual-Vector Foil builds the correspondence between reality and the imagination in a song that features the spiritual state of characters. Combined with the floating signifiers separated from their

⁸⁷ Generally, and for the purposes of this chapter, affect means the spontaneous sensual and emotional reaction that is beyond one’s conscious control. See *A Dictionary of Critical Theory*, “Affect,” <https://www.oxfordreference.com/display/10.1093/acref/9780198794790.001.0001/acref-9780198794790-e-12?rskey=pgaRJ3&result=12>.

supposed signified through the character's emotional and intuitive world and romantic projections, weapon fetishism further makes the imagined spiritual flight and the upcoming apocalypse in the human story equally exist as textual multiverses, bringing in an effect of cacophony to the climax of the human-centred narrative. Overall, the challenge to human-centred narrative in Liu Cixin's text provides fetishism with a new possibility to break instead of fix humans' body-self.

Becoming a Real Ghost: Lin Yun, New-Concept Weapons and Suicide

Weapon fetishism physically makes Lin Yun a ghost. Lin Yun's weapon fetishism primarily appears as her physical intimacy with weapons. For example, Lin Yun puts a landmine decorated as a small piece of bamboo in her car, with the detonation mechanism still on.⁸⁸ Similarly, she also goes to sleep with a pistol under her pillow after discovering the existence of the quantum ghosts of the people she killed.⁸⁹ Her intimacy with weapons peaks when she commits suicide by staying within the exploding area of the macro-atomic bomb while she has the choice to live on,⁹⁰ after which she becomes a quantum ghost herself. Such intimacy cannot fully be explained by the instrumentality of weapons being to kill and destroy because the destruction is firstly directed towards Lin Yun herself. Thus, from the very beginning of the story, Lin Yun lives at the edge of death (or the edge of existence). Weapon fetishism here becomes an impulse that brings humans to the non-human world. As the story continues, the world shows its existence: the quantum macro-world. In fact, during the war, Lin Yun also shows a strong desire to become a quantum ghost to win the war.⁹¹ Lin Yun's potential tendency towards the non-human-centred definition of death further shows her spectrality.

⁸⁸ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 49.

⁸⁹ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 225.

⁹⁰ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 252.

⁹¹ See the fourth chapter "Ambush at Sea" in the third section of *Ball Lightning*.

Lin Yun's enchantment with the aesthetics of weapons is also related to her death and spectralization. In "Lin Yun II," Lin Yun's quantum ghost tells her father that she coincidentally grew up enchanted by the beauty of weapons under her father's aesthetic education in music and the arts:

I realized that beauty for most people is characterized by fragility and powerlessness. True beauty needs to be supported by an internal strength, and develop itself through sensations like terror and brutality, from which you can both draw strength and meet your death. In weapons, this beauty is expressed to the full.⁹²

Here, weapon fetishism lies in beauty, beauty lies in power, and power lies in the ability to destroy (strength) and bring death (to the user herself). Unique beauty lies in creation. For Lin Yun, destruction in the human world is a form of *creation* instead of an *ending*; it is "add/plus" instead of "remove/minus." In other words, for Lin Yun, it is not true that the human world equals the overall world and there is nothing outside of the human world, such that once beings leave or lose their place in the human world, they become nothing, and the world simply loses something. Instead, there is another world behind weapons (especially macro-atomic and macro-electronic weapons), and it is this unknown world that endows weapons with creative potential. Lin Yun's suicide is the peak of her fetishism and also her formal ceremony of becoming a ghost. Such a ceremony is marked by her complete intimacy with the macro-atomic bomb with a distance less than 200 meters, as otherwise living beings should not be affected by the fusion that is targeted at chips only.⁹³ Thus, Lin Yun's suicide is essentially a corporeal transformation, or a complete

⁹² Liu, Cixin, *Ball Lightning*, 564-565.

See original Chinese text:

我意识到，那些能让大多数人陶冶性情的美是软弱无力的，真正的美要有内在的力量来支撑，它是通过像恐惧和残酷这类更有穿透力的感觉来展现自己的，你能够从它获得力量，也可能死在它上面，武器将这种美体现得最为淋漓尽致。

Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 261.

⁹³ See Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 240-242.

embodiment of the quantum spectral world (because the macro-atomic bomb itself is part of the macro-world) and the abandonment of her human body. Lin Yun goes a step further than desiring the weapons as part of the spectral world: she directs the destructive power towards herself and creates a quantum ghost through weapons using her own human body. Therefore, weapon fetishism plays an important role in Lin Yun's spectralization and entrance into the non-human-centred world. For both *Ball Lightning* and the trilogy, the text always directly confronts and questions death. Behind Lin Yun's desire towards weapons is the text's desire -- what is after death's end? If death is eternal (*Sishen yongsheng* 死神永生)⁹⁴, then what cancels death's end and makes it an ever-lasting longing?

The macro-world, Lin Yun's spectrality and Lin Yun's weapon fetishism are interlinked through her suicide. Because of the existence of another world that trivializes the human world, Lin Yun's potential longing for death and physical destruction can be seen as an inversion of the Freudian Death Drive.⁹⁵ Through weapon fetishism, the text reverses the meanings of life-drive and death-drive: Lin Yun's affirmative desire, passion and strong motivation are all related to her pursuit of innovative weapons, which leads to death, but death here is the gate for her to undergo "rebirth" and truly become a free "(quantum) cloud." Weapon fetishism connects Lin Yun's two aspects: the traumatic, obsessive, and narrow-minded Lin Yun (or "illusional body (*huanshen* 幻身)") versus the relieved, freed, egoless and gentle Lin Yun. The latter exists and becomes Lin

⁹⁴ The original Chinese title of *Death's End*.

⁹⁵ Death-drive, or Thanatos, is the impulse towards self-destruction that motivates an individual's certain behaviors (such as emotional self-torturing) that cannot be explained by their desire towards living and pleasure. It is the opposite to life-drive, or Eros.

See *A Dictionary of Critical Theory*, "death-drive,"

<https://www.oxfordreference.com/display/10.1093/acref/9780198794790.001.0001/acref-9780198794790-e-160?rskey=dztMJH&result=169>.

Eros means the drive to live, fulfill basic physical needs, give birth and have pleasure. See Freud, Sigmund, "Beyond The Pleasure Principle," in *Beyond The Pleasure Principle*, translated and edited by James Strachey (W.W. Norton & Company: London, 1961), 1, 55.

Yun's true body (*zhenshen* 真身) because of another dream-like non-human-centred world. In other words, the ghost becomes her true body as a "spirit without the dead;" the illusion-reality displacement shown through Lin Yun's ghost further enhances the non-human-centred world in terms of narrative potential and characters' emotions and worldview. Lin Yun's weapon fetishism is thus a *ghost's* life-drive. This inversion directly shakes the very core of humanity's self and psychological existence, and centralizes the ghostly world that makes it possible; from the desire towards death emerges more vitality than life drive. Dreams trivialize and vitalize the reality. In front of such power, humans have no choice but to step back. The relationship between weapon fetishism and the non-human-centred space makes weapon fetishism in Liu's works a new facet of fetishism theory: it leads to the denial and breaking of humans' body-self. This distinguishes weapon fetishism from other fetishism theories, including the fetishism proposed by Laurence Rickles's study of the bodily attachment to planes by wartime pilots, who regard planes as the extension of their body.⁹⁶ The difference lies in the latter's reinforcement and extension of humans' body-self, while weapon fetishism breaks it.

With the power reversing life and death gained from another world, weapon fetishism serves as the bridge between humans' realm and the non-human world; it completes the ceremony of becoming a ghost. Another suicide at the beginning of the *Three-Body* trilogy is a control-group case: the mass suicide of scientists. In this case, without weapon fetishism and the mechanism of becoming a ghost behind it, humans do not get into the other world, and death is just death. The newest hadron colliding experiment, under the manipulation of Sophon, shows that time and space are not uniformly distributed (which is the basic axiom from which derives human physics). This makes scientists commit suicide since they cannot accept the result.⁹⁷ On the one hand, the

⁹⁶ Rickles, Laurence A., *Crypto-Fetishism*, 7-8.

⁹⁷ See the first and second chapters of the first volume of the trilogy.

scientists hold strong desires towards new discoveries about the universe and physics rules; the continually upgrading hadron colliding experiment itself is the representative of such desire: the experiment, with higher and higher energy of hadron colliding, is the concretized extension of their desire to comprehend and control the physical world—in other words, their Eros. On the other hand, unlike Lin Yun's case, such a desire is ruthlessly denied by the world they long for, since in the trilogy, the non-human-centred world appears as an enemy and meanwhile distorts the basis of humans' existential cognition; it does not give humans a way to become part of it and thus fully comprehend it because the abnormal experimental result itself is the attack and manipulation method of humans' rivals in the universe. The extremist and special case in the mass suicide is Yang Dong, who is Ye Wenjie's daughter. As revealed in *Death's End*, her suicide is not because of the disturbed experiment results but partially out of the realization of the fact that all physics rules are malleable and manually changed (mostly happening in the cosmic wars, the attacks in which include changing spatial dimensions), and thus humans' existence and existential cognition are all a trivial and temporary coincidence. In other words, it is an essential contradiction that kills the scientists: there is an estranged world in front of their desire to comprehend and explore (and it is thus the potential object of their desire), but it is also this world, which is constructed through rivalry and mutual elimination, that hinders them from comprehending the world and even further, in reverse, shakes their own existence. Such an unsolvable contradiction breaks the connection between, and transcendence of, life and death that weapon fetishism builds in *Ball Lightning*; when the scientists realize their illusionary bodies while having no way to find a place in another world, what else is left except death? And, back to the overall topic of this thesis, with only an ephemeral illusionary body left, the marginalization of the human-centred story is determined at the very beginning.

Therefore, weapons as SF novums here, unlike a mere symbolic textual element that is instrumentally used to bring out meaning-oriented “critical reflections” related to the non-human world,⁹⁸ actually bear specific and engaging functions as *part of* the non-human world, and the latter has a specified incarnation in the novel. SF novums entangle with humans’ desire systems, homogenizing them into the estranged world. Literally, just like how ball lightning works: the “matter-wave resonance” appears between the ball lightning and the target, making the latter a quantum being.⁹⁹

Becoming The Text’s Ghost: Singer, Dual-Vector Foil and Star-Plucker¹⁰⁰

If weapon fetishism in *Ball Lightning* generates ghosts in a literal sense, then in the trilogy, it generates the text’s ghosts through the crack between signifier and signified and equals imagination and reality, weakening humans’ presence. This happens in “Bunker Era, Year 67 Orion Arm of The Milky Way 掩体纪元 67 年，银河系猎户悬臂,” the first chapter of the fifth section of *Death’s End*, the third volume of the *Three-Body* trilogy. A stranger from an unknown cosmic civilization receives and pays attention to the position information of the Trisolaris sent by humans and then notices the conversation between Trisolaris and the Solar System. This stranger, Singer, throws out a Dual-Vector Foil, a piece of two-dimensional space that could suck the three-dimensional space into it, to the Solar System, which he calls Star-Plucker.¹⁰¹ Ghosts appear in

⁹⁸ Specifically, “a catalyst for characters to challenge their previous anthropocentric framework, and in many cases, to create new radical ideologies that challenge anthropocentrism.” See Dorries, Jeff, “Decentering Anthropocentric Narcissism,” 112.

⁹⁹ Liu, Cixin, *Ball Lightning*, 413-414.

¹⁰⁰ Plucking here means to pluck the string of an instrument.

¹⁰¹ The elimination of the Solar System and Trisolaris, which had been destroyed by other cosmic civilizations at the time Singer noticed it, is Dark Forest Attack. Dark Forest Attack means the indiscriminate attack from one civilization to another once the position of the object civilization is exposed, based on the absolute rivalry relationship between different cosmic civilizations as described in Dark Forest Rules. See Liu Cixin 刘慈欣, *Santi san Sishen yongsheng* 三体 III • 死神永生, 221-222. For Dark Forest Rules introduced in Chapter One, see Liu Cixin 刘慈欣, *Santi er Heian senlin* 三体 II • 黑暗森林, 441-448.

Singer's song; the first half of the song appearing at the beginning of the chapter, and the second half ends the chapter:

Singer sang one of these classical songs as he reviewed the data.
I see my love;
I fly next to her;
I present her with my gift,
A small piece of solidified time.
Lovely markings are carved into time
As soft to the touch as the mud in shallow sea.

...

She covers her body with time,
And pulls me along to fly to the edge of existence.
This is a spiritual flight:
In our eyes, the stars appear as ghosts;
In the eyes of the stars, we appear as ghosts.

As he continued to sing, Singer picked up the dual-vector foil with a force field feeler and carelessly tossed it at the Star-Pluckers.¹⁰²

¹⁰² Liu, Cixin. *Death's End*, translated by Ken Liu (New York: Tor, 2016), 894, 907.

See original Chinese text:

歌者翻阅数据时正在吟唱着一首古歌谣:

我看到了我的爱恋
我飞到她的身边
我捧出给她的礼物
那是一小块凝固的时间
时间上有美丽的条纹
摸起来像浅海的泥一样柔软

.....
.....

时间上有美丽的条纹
摸起来像浅海的泥一样柔软
她把时间涂满全身
然后拉起我飞向存在的边缘
这是灵态的飞行
我们眼中的星星像幽灵
星星眼中的我们也像幽灵

歌声中，歌者用力场触角拿起二向箔，漫不经心地把它掷向弹星者。

Liu Cixin 刘慈欣, *Santi san Sishen yongsheng* 三体 III • 死神永生, 387-388, 393.

Overall, Singer's civilization appears as part of the heavenly universe (as indicated in Chapter Two of this thesis, the overall universe that is constructed by dynamic chaos, Dark Forest attacks and manually manipulated physics rules) with an estranged and systematic worldview and character relationship. The term ghost (*youling* 幽灵) appears in the song. Singer's fetishization of the Dual-Vector Foil (which clearly echoes the fetishized "gift" in the song) serves as the key to establishing the systematic correspondence between Singer, Star-Plucker and the ghostly lovers in the song. Thus, "Singer" and "Star-Plucker" are separated from their original signified (the attacker and the target) and made "floating signifiers," or signifier without a signified. Literally, they are significantly influenced by, and the (partial) projection of, the lovers who become ghosts, and as floating signifiers, they also (at least partially) become the text's ghost: the untimely existence and intrusion of an estranged world dominated by a romantic story (among floating signifiers) at the climax and apocalypse in the human story. Therefore, this section will contain three parts: the estranged worldview, the poem and its alienation of Singer and Star-Plucker as floating signifiers and the text's ghost, and the crucial role of Singer's fetishization of Dual-Vector Foil in this process of "becoming a ghost."

Singer's civilization is the only place where the text directly narrates from the perspective of the heavenly universe without giving any previous information and explanation about the civilization. Although the text has pointed out previously that a Dark Forest Attack would be random, it is still unexpected that the text suddenly inserted a chapter with entirely new and independent settings, such as *pingheng peng* 平衡鹏 (balance bird), *zhuhe* 主核 (main core), *mu shijie* 母世界 (home world), *bianyuan shijie* 边缘世界 (fringe world), and Singer's unique enjoyment of old music, such as his memory of *xuqin* 墟琴 (country zither), which the text leaves unexplained. The text is not able to explain them, too, because the narrative space itself belongs to

Singer and his world, and humans in the book, and readers, are outsiders.¹⁰³ Besides music, Singer also worried about the meanings of existence, but existence is related to the increasing and decreasing entropy in the universe, which is distinguished from the thinking mode of humans.¹⁰⁴ It is so vivid and lively that it seems to be at least as real as the human world, with its own rules and possibilities that cannot be fully predicted and comprehended, based on which the non-human centred space is provided with agency. Besides, after the two-dimensionalization (and thus destruction) of the Solar System, the text begins to incorporate a growing sense of unknowability (this is within human protagonists' worldview, but things are completely out of control and unknowable to them), such as the future of the universe after being zero-dimensionalized, the possibility of manually changing physics rules such as lightspeed, and the hypothesis of an idyllic ten-dimensional universe before the reduction of spatial dimensions in the cosmic wars.¹⁰⁵ Through the perspective of surviving human protagonists, the text shows the uncertainty and unknowability of any possibility of a "real" image of the universe and the validity of physics itself. By admitting the existence of unknowability, the text also liberalizes and vitalizes its narrative space, allowing it a certain agency so that it grows uncontrollably. And all these are released from the moment Singer sang his song about ghosts. Following the shadow of the ghost, "What does 'Death's End' look like?" becomes an answerless question. Such moments where the unfamiliar worldview with agency intrudes on the text are important because it is the text showing that humans are not at the centre of the narrative.

Although "Bunker Era Year 76" has such an estranged context, it still seems as if it is part of the human story, just from another cosmic civilization subject's perspective – or is that so? The

¹⁰³ Liu Cixin 刘慈欣, *Santi san Sishen yongsheng* 三体 III • 死神永生, 388, 390, 393. Liu, Cixin, *Death's End*, 893-895, 901.

¹⁰⁴ Liu Cixin 刘慈欣, *Santi san Sishen yongsheng* 三体 III • 死神永生, 388.

¹⁰⁵ See Liu Cixin 刘慈欣, *Santi san Sishen yongsheng* 三体 III • 死神永生, 471-474, 477.

answer is no. The shift of narrative core lies in the relationship among three pairs of textual elements: the attacker and the target, Singer and Star-Plucker, and the ghostly lovers in the song. The possible alloy of the last two pairs (and thus the marginalization of the first pair, which is the original signified of the second pair in humans' story) through weapon fetishism makes the "spiritual flight" in the imagination and apocalypse in reality equally effective at the text level; Singer and Star-Plucker as textual elements are thus in a quantum superstition state as both rivals and lovers at the same time, and the two parallel-time endings are two of their collapse states.¹⁰⁶

Singer and Star-Plucker are essentially two independent terms that should not be completely bound to the attacker and the target. They are two "floating signifiers," or signifiers without signified, that are separated from their roles in a human-centred narrative.¹⁰⁷ The text constructs this separation through Singer's two attitudes that he considers as personal enjoyment: love for music and nearly surreal emotional intuition. The former is irrelevant to his role as an attacker, and the latter contains much more than this role. Firstly, "Singer" could be considered as the low-class cleaner's name or just a nickname, and it is connected to his love for music, for example:

The happiness of the past was recorded in classical songs, and singing those songs was another of the few joys left."¹⁰⁸

Also, cleansing was a very simple thing. The cosmos was full of sources of potential power—one just had to trigger them to complete the task. It required so very little, and didn't even delay singing.¹⁰⁹

¹⁰⁶ As what happens to quantum ghosts in *Ball Lightning*, the quantum superstition state is a state where the being has multiple states of existence simultaneously (for example, one can be both living and dead; can be here and there). The quantum collapse state is the opposite, under which the being retracts to one certain state of existence (because of the interfering elements like the presence of observers).

¹⁰⁷ Specifically, I only borrow the literal meaning of the concept "floating signifier," without its psychoanalytical background.

¹⁰⁸ Liu, Cixin, *Death's End*, 894-894.

See the original Chinese text: 古典时代的那些乐趣都写在古歌谣中，吟唱那些歌谣，也是现在不多的乐趣之一。Liu Cixin 刘慈欣, *Santi san Sishen yongsheng* 三体 III • 死神永生, 387.

¹⁰⁹ Liu, Cixin, *Death's End*, 900.

See the original Chinese text: 再说清理只是一件很简单的事，宇宙中到处都有潜在的力量，只需诱发它们为你做事就行了，几乎不耗费什么，也不耽误唱歌。

Liu Cixin 刘慈欣, *Santi san Sishen yongsheng* 三体 III • 死神永生, 390.

But Singer liked primitive membrane. He thought primitive membrane possessed a simple beauty, symbolizing an age full of joy. He often turned primitive membrane messages into songs. He thought they sounded pretty, even if he didn't understand them. Understanding them wasn't necessary, however; other than coordinates, primitive membrane messages didn't have much useful information. It was enough to enjoy the music.¹¹⁰

From the examples above, the core of Singer's consistent character is music and the enjoyment it brings, and this exceeds his job to eliminate the weaker rivals in the universe. The destruction of a cosmic civilization is just a trivial work and (presumably) should not disturb the act of singing. Singer's mental world thus brings the narrative from his rivals' (the Solar System is one of them) story to the longing for an unfamiliar idyllic era behind the music that, as many of the estranged terms mentioned in the settings, is undefined and not comprehensible for humans.

It is out of such enjoyment that Singer assigns the name "Star-Plucker (*tanxing zhe* 弹星者)" to one of his targets, and this name is also a deviation from the human-centred narrative. Star-Plucker refers to Ye Wenjie, who uses the Sun to amplify radio signals to send messages to Trisolaris, just like "ancient bards of the home world plucking the strings of the rough country zither 母世界上古时代的游吟歌者弹起粗糙的墟琴."¹¹¹ This generates a deviation from the

¹¹⁰ Liu, Cixin, *Death's End*, 900.

See the original Chinese text: 但歌者喜欢原始膜，他感到原始膜有一种古朴的美，象征着充满乐趣的时代。他经常把原始膜信息编成歌谣，唱起来总是很好听，当然一般听不懂什么，也没必要懂，除了坐标，原始膜的信息中不会有太多有用的东西，只感受其韵律就行了。

Primitive membrane here means the way Ye Wenjie sends the message to the universe and communicates with Trisolaris Civilization.

Liu Cixin 刘慈欣, *Santi san Sishen yongsheng* 三体 III • 死神永生, 390.

¹¹¹ Liu Cixin 刘慈欣, *Santi san Sishen yongsheng* 三体 III • 死神永生, 390. English translation from: Liu, Cixin and Liu, Ken. *Death's End*, 901.

Mingwei Song also discussed the archetype of Star-Plucker. As Mingwei Song indicates, Star-Pluckers, as an archetype in Liu Cixin's SF, are idealists who dare to explore and connect themselves to the universe. They have a romantic picture of the universe out of their humanist beliefs and purely theoretical speculations. Although this study shares the English term Star-Plucker, especially with regard to it making the sound in the universe, I do not focus on the systematic archetypal analysis stemming from it. The idealism-realism dichotomy (and the contradiction between showing/exploring and hiding) in Song's interpretation is also not shared by this study, since in my interpretation, Star-Plucker is after all not a character archetype because it is separated from all the fixed

original being Ye Wenjie, which is so significant that the name Star-Plucker cannot fully signify her: From the perspective of the human-centred story, Ye Wenjie's motivation and aim are all realistic and directly about saving *humans* from the loss of a moral order based on her experience in *human* society: to invite a more advanced cosmic civilization (Trisolarans) to *come to the Solar System* and save humans.¹¹² However, in this chapter, the text creates a separate floating signifier "Star-Plucker" through an outsider's eyes, who has no knowledge about humans. In terms of the motivation and worldview, Ye Wenjie and the Star-Plucker are essentially different. Singer's Star-Plucker is innocent and interesting, who looks *outward* and dares to make a sound in the silent universe. Through such a connection that is built through music instead of rivalry, "Singer" and "Star-Plucker" are essentially separated from their original signified and become independent new textual elements with their own relationship; the human story is thus erased together with the rivalry.

Completely irrelevant to humans' story, music (and its medium such as the "primitive membrane"), including singing, plucking the star and creating music through data, thus define Singer and Star-Plucker as floating signifiers. It mainly features creativity and sensuality, two elements that make a character vitalized and individualized mentally and physically. With the sound of plucking the Sun that breaks the silence in the universe and a musical mind that could compose music based on mere data, Singer and Star-Plucker's world becomes more vitalized than the world that the attacker and a target belong to, just like the difference between data and music.

signified. The opposite side of Star-Plucker is not another archetype, but an original signified in the human-centred narrative. Specifically regarding *Fear of Seeing*, although Song points out Singer's trivialization of humans as a deity-like character from above, this study does not share the same interpretation of such trivialization, instead arguing that the trivialization of humans does not appear as Singer's ignorance on the plot level, but on the symbolic level.

See Song Mingwei 宋明炜 "Tanxingzhe yu mianbizhe Liu Cixin de kehuan shijie 弹星者与面壁者: 刘慈欣的科幻世界 [The Star-Plucker and Wallfacer: Liu Cixin's SF World], " *Fangfa yu wenben* 方法与文本, 2011, 23. Song, Mingwei, *Fear of Seeing*, 116-117.

¹¹² See the first volume of the trilogy, Liu Cixin 刘慈欣, *Santi san Sishen yongsheng* 三体 III • 死神永生.

The human world in reality thus steps back again. Although Singer's music should be different from humans', it is still interesting that the author chooses the term music, an artifact of human culture related to emotions, as the medium to detach humanness. This complex entanglement will be discussed in the next chapter, which is about humans' role in the text's detachment from humanness.

Furthermore, the relationship between Singer and Star-Plucker is single-sided; Star-Plucker is otherized and silenced. Such a vitalized but one-sided emotional relationship also enhances their independence as floating signifiers. This emotional relationship is shown through Singer's other source of joy: intuitively and imaginatively sensing the target's emotions. Singer's job as a low-class cleaner was to read the coordinates of a cosmic civilization's position and relevant data broadcast into the universe by their rivals to invite the Dark Forest attack, and Singer is irreplaceable as he has a unique instinct to sense the "fear" conveyed in the coordinate information, or the "*chengyi* 诚意 (sincerity)," as Singer called it, with limited data-form information. The first sentence in the chapter "Bunker Era, Year 67" points out that this is Singer's "*lequ* 乐趣 (pleasure)":

A set of coordinates seemed nothing more than a simple matrix in the eyes of the uninitiated, but to Singer, it was alive. Its every detail was expressive. For instance, how many reference points were taken? What was the method for marking the target star? And many other subtle details besides.....Together, these formed an organic whole, and what emerged in Singer's consciousness was a sense of the coordinate broadcaster himself. Singer's spirit crossed the chasm of space and time, resonated with the spirit of the broadcaster, and felt its terror and anxiety, along with other feelings unfamiliar to the home world, such as hatred, envy, greed, and so on. But for the most part, it was terror. Terror was what endowed a set of coordinates with sincerity. For all low-entropy entities, terror guaranteed existence. ¹¹³

¹¹³ Liu, Cixin, *Death's End*, 896-897.

See Chinese text: 一个坐标，在外行看来就是那么一个简单的点阵，但在歌者眼中它却是活的，它的每一个细节都在表达着自己，比如取点的多少，目标星星的标注方式等等，还有一些更微妙的细节……这些合而成为一个有机的整体，在歌者的意识中浮现出来的将是坐标广播者本身。歌者的精神越过空间和时间的沟壑，与广播者的精神产生共振，感受它的恐惧和焦虑，还有一些母世界不太熟悉的感情，如仇恨、嫉妒和贪婪等，但主要还是恐惧，有了恐惧，坐标就有了诚意——对于所有低熵体，恐惧是生存的保证。

Liu Cixin 刘慈欣, *Santi san Sishen yongsheng* 三体 III • 死神永生, 388-389.

Here, the text portrays Singer's emotionally intuitive and transcendent way of analysis that is essentially different from logical and positivist reasoning, which reflects the text's choice to deliberately separate "Singer" and "Star-Plucker" as signifiers from their original signified as rivals who act under absolute realism under Dark Forest Rules. The extent to which Singer infers more information than the coordinates literally show is the extent to which "Singer" is an independent floating signifier in a symbolic romantic relationship. Between "a simple matrix" and the "the broadcaster himself" is "the chasm of space and time" (which also includes the barriers between difference species) that cannot be overcome by reasonable analysis. The spiritual resonance, with Singer "feeling" the "terror," "anxiety" and other "unfamiliar" feelings, thus becomes an intimate close reading of one's mind that is firstly not possible in terms of the distance and secondly not reasonable between (unequal) rivals (as his Elder says, Singer just needs to simply take a glimpse at the coordinates and then make the decision, instead of examining them closely); it only makes sense between lovers or admirers.¹¹⁴ Singer's cognitive focus transcends the subjective self of a personalized other, making his "job" an actual romantic search for the mind of a lover. With his highlight on "terror" and "sincerity," it is interesting to see that, on the one hand, Singer and Star-Plucker are floating signifiers; on the other hand, their relationship is still accompanied by the shadow of Dark Forest that makes it unequal, fully a one-sided gaze and romantic projection, instead of conversation.

Singer and Star-Plucker thus primarily correspond to the lovers in the song, especially for the resonance between "see[ing] (*kandao* 看到)" in the first sentence and Singer's single-sided gaze towards Star-Plucker. But the key to establishing systematic correspondence between reality

¹¹⁴ Liu Cixin 刘慈欣, *Santi san Sishen yongsheng* 三体 III • 死神永生, 392.

and poem/imagination is weapon fetishism that directly links Dual-Vector Foil to the gift in the song. Weapon fetishism in this case contains two parts: Singer's aesthetic appreciation of Dual-Vector Foil, which is in line with the song, and the gift receiver's intimacy with the gift in the song, regarding which the reality and imagination are different. Dual-Vector Foil (*erxiangbo* 二向箔), is a piece of two-dimensional space made as a weapon to destroy cosmic civilizations by transferring them from three-dimensional entities to two-dimensional materials. Just like ball lightning and the macro-atomic bomb, Dual-Vector Foil is itself part of a non-human-centred world, and Singer's ability to perceive them from the imaginative instead of realistic (and thus instrumental) perspective further vitalizes and solidifies the "dream world" outside of humans. In Singer's eyes, Dual-Vector Foil is "crystal clear 晶莹剔透" with "yielding tenderness 最硬的柔软," and "a kind of aesthetic that could turn death into a song 能把死亡唱成一首歌的唯美."¹¹⁵ Firstly, space here is no longer abstract, shapeless, material-less and boundary-less; what is the widest and most uncatchable becomes a delicate and malleable object; what controls is controlled; what is shapeless gets its shape and textures. Its corresponding image in the song has even more dream-like qualities: it is a piece of "solidified time 凝固的时间" with "lovely markings 美丽的条纹" and a soft tactile quality like "mud in the shallow sea 浅海的泥."¹¹⁶ Although space and time are clearly structurally correspondent, time should be, arguably, more unrelated to shape and textures. Nonetheless, time here is given a more sensual quality than Dual-Vector Foil: visual beauty, tactile (and touchable) softness, and the changeable objective states. We then wonder: if time can be "solidified," was it in a liquid state? And will it change into a gaseous state—or are

¹¹⁵ Liu Cixin 刘慈欣, *Santi san Sishen yongsheng* 三体 III • 死神永生, 392. Liu, Cixin, *Death's End*, 905.

¹¹⁶ Liu Cixin 刘慈欣, *Santi san Sishen yongsheng* 三体 III • 死神永生, 387-388. Liu, Cixin, *Death's End*, 907.

there more objective states than these three in human physics? Through this endless imagination, dream overturns reality and inversely gives the latter a new structure and shape.

The other side of this fetishism is only the receiver of the gift in the song, in which the receiver indicates a sense of intimacy towards the spectral gift, similar to Lin Yun's intimacy to her weapons. Star-Plucker (and its relationship with Singer) falls into a "quantum superstition state" where two parallel-time endings coexist. One parallel-time ending exists in reality, under which the signifiers are bound back to the signified (the Solar System and the attacker), and the intimacy between the Solar System brings only death and destruction. The other parallel-time ending exists in the song and brings ghostly rebirth like Lin Yun's. In the song, "she covers her body with time, and pulls me along to fly to the edge of existence 她把时间涂满全身，然后拉起我飞向存在的边缘." "Covering" the body with the gift indicates intimate embodiment and sensuous touch between the gift and the loved one, which also transgresses the instrumental function between a gift and a human, making such a relationship fetishistic. Meanwhile, this sentence extends this desire to the "edge of existence"—where ghosts emerge as beings beyond living and death and the spiritual flight begins. In this ending, the "gift," or the small piece of time, thus changes the state of the lovers, enabling them to get rid of the limit of corporeal existence and meet numerous ghosts like them. Such a spiritual flight free from a place for belonging echoes the spectrality analyzed in Chapter Two and also Lin Yun's rebirth as a quantum ghost that is her true self; the difference is that this time the spectralization happens in imagination and within a poetic realm. So far, the presence of humans in Singer's world is marginalized through two steps: the signifier-signified separation and the alienation of the floating signifiers from the poetic space.

As quoted above, in regards to the part related to humans (which is just a small part of the non-human-centred Singer's Civilization and the larger universe), the chapter "Bunker Era, Year

67” ends with these two different endings (the second half of the song starting from “she covers her body with time,” and Singer “carelessly” throwing out the Dual-Vector Foil), which can be seen as two “quantum collapse states,” one of which falls back to human-centred narrative and another alloyed with the poem and imagination. Singer treating Dual-Vector Foil carelessly causing its “collapse” back to the signified as an attacker, who treats Dual-Vector Foil as a one-time tool that is purely instrumental. On the one hand, with this as the final sentence of the chapter, it seems like Cinderella’s story: after midnight, all the fantasies fade and things appear again as what they actually are; from the next chapter on, the human apocalypse will come. On the other hand, however, as analyzed above, the presence of music, the emotional relationships among floating signifiers, weapon fetishism, and the poetic space to which weapon fetishism builds a bridge, have shaken the central place of humans in the narrative structure and made the text a free play among textual elements that cancels the dichotomic hierarchy between reality and imagination, based on which the dream world gains agency, making the narrative structure polyphonic.

Conclusion: Fetishism, Weapon Fetishism, and What’s Next

Weapon fetishism in Liu’s works offers an additional perspective to the current theoretical framework of fetishism by making desire a dream mechanism, in which the singular body-self in human reality is not necessarily solid, and the dominating subject of desire can be spirits (or potential spirits who want to get rid of human bodies like Lin Yun) and even mere textual signifiers; it is no longer necessarily single-sided but can have different beginnings and destinations. In literary texts, through a novum, fetishism becomes the proactive abandonment of a being’s place (the carrier of which is one’s body) in the human-centred worldview instead of the fixation or amendment surrounding it (such as Freudian fetishism and post-Freudian fetishism). Fetishism can

be the catalyst of the breakdown of the barrier between living and death, reality and imagination, enabling death to be the gate towards rebirth in another ghostly world and thus shaking the basis of the human meaning system that delineates human material existence.

Chapter Three discussed weapon fetishism as the specific mechanism of spectralization. Following this, Chapter Four will investigate the role of characters and humans outside of the text (mainly the author) in the transition of narrative gravity from human-centred to non-human-centred textual space. I will focus on the cognitive experience on each side; a distinguished language style that the author applied on the non-human-centred space will also be investigated as part of the authorship.

Chapter 4: Humans in A Non-Human Dream

This chapter analyzes the transformation to a heaven-centred narrative from humans' perspective. I argue that when human characters directly face the approaching of the non-human-centred world that they cannot fully control and comprehend, their engaged cognitive experience is also a dynamic mechanism through which the heaven-centred narrative occupies the cognitive centre of the text. The conception of "Human" covers three dimensions: characters as literary mechanisms or part of the text, authorship, and readers; this chapter will mainly focus on characters and the author.¹¹⁷ I argue that human characters go through a "delirium experience" facing the approach of an estranged, non-human-centred world (macro-world and the overall worldview of the whole universe consisting of unknown cosmic civilizations), through which the non-human-centred world further empowers itself in the cognitive plundering of humans. Delirium experience is a term I have invented to characterize the experiences undergone by Liu's characters in these texts. "Delirium" as Liu Cixin's literary representation in this study is defined as a state of ultimate breakdown of cognitive patterns and the inability to think rationally; "delirium experience" is the humans' embodied cognition of delirium with an alienation or detachment from their human identity that is constructed surrounding their body-self and emotional relationship with other humans.¹¹⁸ Delirium experience is often followed by the characters' counter-phobic excessive focus on, and feeling for, the details of the novum (such as Dual-Vector Foil) as part of the non-human-centred world. The depiction of the abnormally excessive range and intensity of sensual

¹¹⁷ Here, characters are considered part of the text as an entity independent from the author's will, although also influenced by the latter. In this thesis, "character" is a literature mechanism constructed by the literary text, and thus literally an *image* of "human," instead of representing or purporting to be a real individual. Here I adopt Roland Barthes' point, see Barthes, "An Introduction To The Structural Analysis Of Narrative," in *The Semiotic Challenge*, translated by Richard Howard (Oxford: Basil Blackwell, 1988), 117-120, 123.

¹¹⁸ I borrowed this medical term since it is described as being "an alteration of attention, consciousness, and cognition, with a reduced ability to focus, sustain, or shift attention." See Echeverría, María de Lourdes Ramírez, Schoo, Caroline and Paul, Manju, "delirium," *National Institute of Health*, <https://www.ncbi.nlm.nih.gov/books/NBK470399/>.

experience (that the character alone may not be able to achieve) in the trilogy and *Ball Lightning* suggests the presence of the author's voice, through which characters and the author are connected. The depiction of relevant scenes is marked by a large volume of details, constant use of metaphors and intense sensual stimulation, and is mainly constructed through "macro-details (*hong xijie* 宏细节)" based on Liu Cixin's authorship, which comes from his own passion and anxiety towards an imagined non-human-centred worldview.

This echoes Darko Suvin's concept of "cognitive estrangement": to establish an essentially cognitively unfamiliar worldview (through SF novums) to readers and generate significant interaction between readers' cognition and the new worldview.¹¹⁹ However, Liu Cixin's two works go a step further and duplicate this mechanism onto the *characters within the text*. In other words, Liu's text presents a nesting doll structure of cognitive estrangement in his text to realize cognitive estrangement at the reader-text level, the text level, and the author-text level.¹²⁰ Moreover, in addition to Darko Suvin's cognitive estrangement, delirium experience is firstly engaging, aggressive, intrusive and predatory: the strong presence of the non-human-centred world is always accompanied and empowered by the anxiety, emotional disorder and breaking of self in the case of human characters. Human characters' embodied cognitive experience allows the tentacles of the non-human-centred world to deeply break into humans' mental and sensual world, thus weakening and shaking the boundary of the human world; everyone is forced into the corner of existence through this cognitive embodiment of the estranged world.

¹¹⁹ Suvin, Darko, *Metamorphoses of Science Fiction*, 7-8.

¹²⁰ Readers are certainly important, but since the scope of this thesis does not contain readers' perception, a systematic investigation of readers' role in the transformation of narrative gravity is not given here. However, this chapter will still provide some speculative analysis of readers' cognitive experience as part of the nesting doll structure of cognitive estrangement.

Cheng Xin (and Wang Miao): Do Not Go Gentle into *The Starry Night*¹²¹

In the beginning and climax (the Ghost Countdown and the apocalypse of the Solar System) of the *Three-Body* trilogy, human characters like Cheng Xin and Wang Miao both experience the breaking-down of the cognitive boundary of their body-self through the excessive focus on the estranged phenomena brought by a novum from the non-human-centred world (Dual-Vector Foil and Sophon). By portraying such a cognitive alienation that is followed by human beings' intensified sensual perception and projection, the text is further occupied by the estranged world that is empowered through human eyes and brains.

The word “delirium (*zhanwang* 谵妄)” appears in “Bunker Era Year 67, Pluto” in the fifth section of *Death's End* that directly portrays the apocalypse of the Solar System. The reaction of Cheng Xin, an engineer who witnessed the two-dimensionalization of the Solar System and managed to escape from it, provides an archetypal representation of delirium experience:

Giant planets filled space, the areas of the planets seeming to exceed even the gaps between them. But the immensity of the planets did not give them any sense of substantiality. Rather, they looked like whirlpools in space-time. In the universe, every part of space flowed, churned, trembled between madness and horror like fiery flames that emitted only frost. The Sun and the planets and all substance and existence seemed to be only hallucinations produced by the turbulence of space-time.

Cheng Xin now recalled the strange feeling she had experienced each time she had looked at Van Gogh's painting. Everything else in the painting — the trees that seemed to be on fire, and the village and mountains at night — showed perspective and depth, but the starry sky above had no three-dimensionality at all, like a painting hanging in space.

Because the starry night was two-dimensional.

How could Van Gogh have painted such a thing in 1889? Did he, having suffered a second breakdown, truly leap across five centuries and see the sight before them using only his spirit and delirious consciousness? Or, maybe it was the opposite: He had seen

¹²¹ I borrowed the title of Dylan Thomas' poem “Do Not Go Gentle into That Good Night.” See <https://poets.org/poem/do-not-go-gentle-good-night>.

the future, and the sight of this Last Judgment had caused his breakdown and eventual suicide.¹²²

Intuitively, delirium embodies mental disorder and illusion as the opposite of rationality and objective perception of reality. The word delirium (*zhanwang* 谵妄) is used to describe Van Gogh in Cheng Xin's mind, pointing to the distortion of rationality and objectivity, essentially featured by the portrayal of the subject projecting subjective emotions and synaesthetic sensual feelings onto objective facts, which is consistent throughout all the character-level delirium experiences in the two works. Space itself does not acquire emotions, but in Cheng (and Van Gogh)'s eyes, it does. The movement and distortion of space have nothing to do with physical feelings, but in Cheng Xin's eyes, they have. The collapse of space does not involve the distortion of time, but in Cheng Xin's feeling, it does. The projection of emotions and feelings onto the Solar System shows the distortion of a human's normal and rational boundary of emotions and feelings that separates her self and the outside world (and thus validates the former), intruding into her body-self, grabbing her cognition to the side of another world and thus enabling the non-human-centred world to further break into the human world: other humans have been two-dimensionalized (or devoured

¹²² Liu, Cixin, *Death's End*, 1017-1018.

See original Chinese text:

太空中充满了巨大的星体，这星体所占的面积甚至大于它们之间空间的面积，但星体的巨大并没有给它们带来实在感，它们像是时空的旋涡。宇宙中，空间的每一处微小的部分都在惊惧和疯狂中流动着、翻滚着、颤抖着，像燃烧的火焰，却只散发出酷寒。太阳和行星，所有的实体和存在，只是这时空乱流产生的幻象。

程心现在回想起两次看到《星空》时奇怪的感觉：画面中星空之外的部分，那火焰般的树，暗夜中的村庄和山脉，都呈现出明显的透视和纵深；但上方的星空却丝毫没有立体感，像挂在夜空中的一幅巨画。

因为星空是二维的。

他是怎么画出来的？1889年的凡·高，精神第二次崩溃的凡·高，难道真的用分裂和谵妄的意识，跨越五个多世纪的时空，看到了现在？！或者反过来，他早就看到了未来，这最后审判日的景象才是他精神崩溃和自杀的真正原因？！

Liu Cixin 刘慈欣, *Santi san Sishen yongsheng* 三体 III • 死神永生, 445.

For the information of the painting see: <https://www.moma.org/collection/works/79802>

by the universe); Cheng Xin and her friend are the only two humans left, but their cognition has also been devoured by the universe that does not belong to them.

Delirium happens in Cheng Xin's mind and makes her vision no longer transparently objective and reliable. Such subjective distortion and illusory abundance in the perception of the approaching non-human-centred world, or the cognitive breakdown, is the traumatic trace of the presence of humans in the process of their devouring by another estranged world. Additionally, Van Gogh's painting, as the most direct panoramic portrayal of the apocalypse, makes the trilogy intrude into the *readers'* world, thus completing the nesting doll structure of cognitive estrangement or using Cheng Xin's delirium experience to generate a similar experience for readers. The scene of the apocalypse remains in Cheng Xin's world, yet the text uses a real-life painting to directly visualize this scene to readers.

Wang Miao experiences similar delirium, though the text addresses it much more briefly. In the third chapter of the first volume of the trilogy, Wang Miao compares Ghost Countdown to “*jiaosuo* 绞索(noose/rope)” twice. When he tries to take photos with new film:

Wang's mind suddenly filled with the imagined sight of the ghostlike figures appearing over his son's face like a hangman's noose. He shuddered. “No, don't do that. Shoot something else.”¹²³

And when he realizes that the countdown just appears in photos taken by himself:

Desperate, Wang picked up the pile of film rolls, like a tangled nest of snakes, like a bunch of ropes tied into an impossible knot.¹²⁴

¹²³ Liu, Cixin, *The Three-Body Problem*, 126.

See the original Chinese text: 汪淼的脑海中突然浮现出幽灵般的数字像一条张开的绞索横在孩子面容前的幻象，他不由微微战栗了一下。“不，别拍儿子，随便拍点儿别的什么吧。”

Liu Cixin 刘慈欣, *Santi diqiuwanshi sanbuqu zhiyi* 三体·地球往事三部曲之一, 22.

¹²⁴ Liu, Cixin, *The Three-Body Problem*, 131.

See the original Chinese text: 汪淼绝望地抓起那堆胶卷，像抓着一团纠缠在一起的蛇，又像一团难以挣脱的绞索。

Liu Cixin 刘慈欣, *Santi diqiuwanshi sanbuqu zhiyi* 三体·地球往事三部曲之一, 25.

Here, Wang Miao subconsciously projects the action of hanging people (to death) onto the Ghost Countdown as mere numbers, which shows the breakdown of his cognitive boundary. Hanging infers intense physical action and strong subjective intention, which have nothing to do with a countdown: to attack, to squeeze one's breath and thus to squeeze and weaken one's life, or one's existence. At this moment, in Wang Miao's mind, it also brings (illusory) significant pain and asphyxia. The actor and receiver of hanging are respectively projected onto the countdown and his son (and he cannot stand seeing the numbers on his son). Therefore, Wang Miao's cognition here contains three agents and the feelings are boundlessly flowing among them. Before the countdown appears on his retina, his cognitive boundary has been intruded upon; the image of strangling is a dynamic cognitive and emotional weakening, accentuating the presence of the countdown and Sophon, as the first part of the approaching universe.

Ultimately, the "phantom" pain in readers' sensual imagination of Sophon weaving things on humans' retina and Van Gogh's painting that can be seen everywhere, is unescapably carved onto readers' sensual cognition, just like Wang Miao and Cheng Xin facing the unescapable arrival of the whole universe that does not belong to them. In summary, Cheng Xin and Wang Miao's delirium experience facing the novums and the intrusion of the estranged universe, appearing as boundaryless and intensified sensual and cognitive perception and projection, dynamically makes the non-human-centred space more intense and centralized in the text, and thus, the text itself is more non-human-centred, bringing the cognitive estrangement to readers.

Liu Cixin: Whose Eyes?

Delirium experience in the text is related to authorship. The shadow of the author's vision begins when the characters' cognitive experience exceeds the limit of a human: delirium experience is

connected to something akin to a spirit-out-of-body (*linghun chuqiao* 灵魂出窍) experience during which one's cognition abnormally focuses on the sensual details of an estranged being; such a ghostly vision is achieved through the author's eye and hands.¹²⁵ As analyzed above, with Van Gogh's painting as the core, the whole apocalypse is portrayed in a language style featuring a high volume of meticulous descriptive details surrounding the novum and the fictional physics phenomenon (two-dimensionalization) related to it. These details are usually sensually stimulating, accompanied with metaphors. This is what Liu Cixin called "macro-details (*hong xijie* 宏细节),"¹²⁶ which are used exclusively in non-human-centred narrative, focusing on SF novum and the moments of intrusion of the cognitively unfamiliar world instead of depicting human protagonists or their social and natural environment. Therefore, when the text depicts the dream more than reality, their positions are inverted. For example, in Cheng Xin's eyes:

And now, the Sun really was melting, its blood seeping into the deadly plane. This was the last sunset. In the distance, white fog rose from the ground outside the landing field. Pluto's solid nitrogen and ammonia sublimated, and the fresh, thin atmosphere began to scatter the sunlight. The sky no longer appeared pure black, but showed hints of purple. While the three-dimensional Sun was setting, the two-dimensional Sun was rising. A flat star could still radiate its light inside the plane, so the two-dimensional Solar System received its first sunlight. The sides of the four two-dimensional planets facing the sun — Neptune, Saturn, the Earth, and Mercury — all took on a golden glow, though the light only fell along a one-dimensional curved edge. The giant snowflakes that surrounded the Earth melted and turned into white vapor, which was blown by two-dimensional solar wind into two-dimensional space. Some of the vapor

¹²⁵ Nai-nu Yang notices the vision beyond humans' ability in the depiction of Cheng Xin's first travel to the universe, but she relates it to the analysis of technology in hard SF writing. Instead, in this study, I treat such a vision as the connection to characters' and the author's extreme cognitive experiences.

See Yang, Nai-nu 楊乃女. "Science as an Approach to World Literature: Hard Science Fiction and Post-Apocalyptic Dystopia in Cixin Liu's Remembrance of Earth's Past Trilogy." *Xiaoshuo yu xiju* 小說與戲劇 27, no. 2 (2018): 98-99.

¹²⁶ Liu, Cixin, "Beyond Narcissism," 24-25.

Mingwei Song also mentions macro details as Liu Cixin's unique visualization of the cosmic sublime by adding sensual details to the abstract sublime but does not further explore the source of such sensuality and its relationship with the presence of humans in the transcendence of human-centred narrative.

See Song, Mingwei, *Fear of Seeing*, 137.

soaked up the golden sunlight and appeared as if the Earth had hair that drifted with the wind.¹²⁷

The text here is detailed and colourful: how the “white” fog appeared, the sky turned “purple,” and the sunshine emerged in two-dimensional space, generating “golden” sketches of two-dimensional planets; how the Sun melted into “blood,” and how the melted snowflakes became “white” vapor soaking in the “golden” two-dimensional sunshine. Colour details suggest an intense visual stimulation that agitates Cheng Xin’s sensual perception and coercively drags her attention into the abyss of apocalypse, further empowering the intrusion of the universe by weakening the solidity of the human self in this dynamic power struggle. Other similar macro-details also help the text enhance this mechanism and further highlight the subjective delirium experience of Cheng Xin. For example, the synaesthesia portrayal of the temperature in the two-dimensionalizing Solar System. Cheng Xin is so attracted by (or cognitively dragged into) this scene that she notices every detail and intensely senses them; her vision blends with the author’s omniscient vision. The metaphor of the “blood” of the Sun and the “drifting hair” compares the objective physics phenomenon to parts of a living being, thus generating an illusionary (or “phantom”) pain through the image of bleeding projected from Cheng Xin’s mind. At this moment, Cheng Xin’s sensory cognition is almost alloyed with the two-dimensionalizing Solar System, the spirit-out-of-body delirium comes together with the unfamiliar and uncontrollable universe’s full conquest and

¹²⁷ Liu, Cixin, *Death’s End*, 1008-1009.

See original Chinese text: 现在，太阳真的在融化，把它的血铺展在二维平面中，这是最后一次日落。远处，降落场外的大地上有大片白色蒸汽出现，冥王星上的固态氮和氨开始蒸发，新出现的稀薄的大气层对光有了散射，天空的背景不再漆黑一片，而是现出淡淡的紫色。在三维世界的太阳落下去的同时，二维平面中的太阳却在升起。二维恒星把它的光能在二维平面内辐射，二维太阳系中第一次出现了阳光。四颗二维行星：海王星、土星、地球和水星，面向太阳的一侧都被照成金色的弧边，但它们能够受到光照的部分只是一维的边缘。围绕地球的巨型雪花在阳光中融化了，变成白色的水汽，被二维太阳风吹向二维的太空，一部分浸透了金色的阳光，像二维地球飘逸的长发。

iu Cixin 刘慈欣, *Santi san Sishen yongsheng* 三体 III • 死神永生, 440.

occupation of the human world. Other sensual details function similarly, such as the description of “melting” and “vaporizing” that projects the subject’s illusionary feeling of high temperature onto objects. In these details, the high sensual intensity is intertwined with the large volume of information; the hidden spectacle of the world that humans will never have a chance to know sparkles *through* Cheng Xin’s hyper-active neuro system. Every color that appears in Cheng’s eyes contains numerous unknown physics reaction and phenomena outside of humans’ physics.

Above the nesting doll structure is Liu Cixin’s vision and the shadow of Liu’s cognitive experience; in that sense, an author-character-reader thread is built: readers cognitively perceive through characters’ cognitive experience, and the latter is shaped under the author’s cognitive experience. Liu Cixin directly connects literary texts’ use of macro-details to the efforts to strengthen and centralize the non-human-centred space in his article “Beyond Narcissism: What Science Fiction Can Offer Literature:” macro-details are descriptive details that include large amounts of information at a significantly grand level (usually in terms of time and space) through the perspective of a non-human-centred and grander narrative angle (for example, another highly advanced cosmic civilization); the human realm becomes marginalized, simple and trivial compared with these details.¹²⁸ Liu Cixin is enchanted with such non-human-centred grandness and certain sensual cognitive experiences can be detected in his description. The representative proof is his “religious affections” towards the unknown: “The religious affections of SF are the deep feeling of awe for the grandness and mystery of the universe 科幻的宗教感情就是对宇宙的宏大神秘的深深的敬畏感.”¹²⁹ Here, the “*shenshen de jingwei gan* 深深的敬畏感 (deep

¹²⁸ Liu, Cixin, “Beyond Narcissism,” 24-26.

¹²⁹ Liu, Cixin 刘慈欣, “SF jiao tan kehuan xiaoshuo dui yuzhou de miaoxie SF 教——谈科幻小说对宇宙的描述 [SF Religion: On The Depiction of the Universe in Science Fiction],” in *zuizao de yuzhou zuihao de diqiu liu cixin kehuan pinglun suibi ji* 最糟的宇宙，最好的地球：刘慈欣科幻随笔集 [The Worst Universe, The Best Earth: Anthology of Liu Cixin’s SF Commentaries], 31.

feeling of awe)” clearly referred to embodied emotional experience. Such an experience as an author is interlinked with his reading experience as a reader. In the same article, he described his feeling of loneliness after reading Clarke’s *2001: A Space Odyssey*, during which he felt the ground disappear and become a white and glossy geometric plane; he stood alone, facing the mystery that cannot be captured by a human brain.¹³⁰ As he then highlighted, the ultimate condition of the grand imagination based on scientific knowledge in SF writing is “SF writers’ religious affections towards the universe 科幻作者对宇宙的那种宗教感情.” He equates the grand and mysterious universe with “the Lord (*zhu* 主)” and defines the doctrine of his “*SF jiao* SF 教(SF Religion)”:

Feel the grandness of the Lord; feel the deepness of the Lord. Write such feelings down for those who are busy and enable them to have the same feelings you have; make them feel the grandness and deepness of the Lord. If so, you and those who are busy will all be blessed.¹³¹

In that case, the appearance of “*tianjie* 天界 (heaven)” in the novels can be related to the author’s thoughts and experiences. Liu Cixin did not further develop a system of SF Religion, but he highlighted the passion or other intense feelings that are related to the grand unknown and uniquely constructed in SF in different articles. For example, at the beginning of the epilogue of *The Supernova Era* [*Chao xinxing jiyuan* 超新星纪元], Liu depicts humans’ deep fear of losing the guidance of parents in the endless darkness. Similarly, as Liu argues, humankind in SF is an orphan

¹³⁰ Liu, Cixin 刘慈欣, “SF jiao tan kehuan xiaoshuo dui yuzhou de miaoxie SF 教——谈科幻小说对宇宙的描述 [SF Religion: On The Depiction of the Universe in Science Fiction],” in *zuizao de yuzhou zuihao de diqiu liu cixin kehuan pinglun suibi ji* 最糟的宇宙，最好的地球：刘慈欣科幻随笔集 [The Worst Universe, The Best Earth: Anthology of Liu Cixin’s SF Commentaries], 33-34.

Mingwei Song mentions Liu’s religionization of the universe as well, but interprets in a completely different way. See Song, Mingwei, *Fear of Seeing*, 129.

¹³¹ See the original Chinese text: 感受主的大，感受主的深，把这感觉写出来，给那些忙碌的人看，让他们和你有同样的感受，让他们也感受主的大和深，那样的话，你和那些忙碌的人都有福了。

Liu, Cixin 刘慈欣, “SF jiao tan kehuan xiaoshuo dui yuzhou de miaoxie SF 教——谈科幻小说对宇宙的描述 [SF Religion: On The Depiction of the Universe in Science Fiction],” in *Zuizao de yuzhou zuihao de diqiu Liu Cixin kehuan pinglun suibi ji* 最糟的宇宙，最好的地球：刘慈欣科幻随笔集 [The Worst Universe, The Best Earth: Anthology of Liu Cixin’s SF Commentaries], 35.

full of “*kongju* 恐惧 (fear)” and “*mangran* 茫然 (sense of loss).” Facing the unknown universe, their “*youzhi he yexing de huomiao* 幼稚和野性的火苗 (naïve and wild fire)” burned unrestrictedly, ending up with a “*fengkuang de huimie zhihuo* 疯狂的毁灭之火 (mad fire of the apocalypse).” This can be seen as the archetype of *Ball Lightning* and the *Three-Body* trilogy: the mad fire corresponds to the macro-fusion and the apocalypse of the Solar System. Liu then emphasizes the importance of 末日体验 (experience of apocalypse)” in SF that could let humans go beyond the limits of their mundane lives and reflect on the latter from a new perspective.¹³² Liu Cixin’s intense experience is similar to what he wrote in the two works, such as Cheng Xin and Wang Miao’s fear, cognitive distortion and intense sensual projection. It is reasonable to speculate that the characters’ delirium experiences, which are presented with macro-details, are produced through Liu Cixin’s cognitive eyes; the characters’ cognitive experiences are also the release of Liu Cixin’s.

The “author” here is not the complete Liu Cixin, but the Liu Cixin in writing, close to an “implied author,” or “the impersonal author’s concrete deputy or delegate, a convenient substitute or apologist for the creative power otherwise so veiled and disembodied.”¹³³ It is necessary to make this distinction because Liu Cixin as the author of the four novels is also a human, a human who attempts to transcend his own limit and actively engage with an estranged world through creating a dream of his own, as could be told from his emphasis on the experience of being *lost* in the unfamiliar dream world brought by SF in his articles. It is Liu Cixin as an implied author

¹³² Liu, Cixin 刘慈欣, “Chaoxingxing jiyuan houji 超新星纪元后记 [Epilogue of *The Supernova Era*],” in *Zuizao de yuzhou zuihao de diqiu Liu Cixin kehuan pinglun suibi ji* 最糟的宇宙，最好的地球：刘慈欣科幻随笔集 [The Worst Universe, The Best Earth: Anthology of Liu Cixin’s SF Commentaries], 75-76.

¹³³ Henry James, “The Golden Bowl,” in *Literary Criticism*, vol. 2. (New York: The Library of America, 1984), 1322. Cited by Stougaard-Nielsen, Jakob, in “The author in literary theory and theories of literature,” in *The Handbook of Literary Authorship*, (Cambridge: Cambridge University Press, 2019), 272.

speaking, writing, overcoming the anthropocentric limit in literature, and re-inventing a (partially) new self. Therefore, Liu Cixin's SF writing is also a case of how the author *performatively* participates in the transcendence.

Lin Yun, Ding Yi and Dr. Chen: Staying or Leaving?

In *Ball Lightning*, three characters exemplify humans' role in transforming narrative gravity to the non-human-centred space: Lin Yun, Ding Yi and Dr. Chen. Lin Yun and Dr. Chen both show clear delirium experience, but Lin Yun chooses to follow its lead, while Dr. Chen detaches himself from the arrival and influence of the macro-world. As Lin Yun's only supporter and the indirect narrator of the climax of the novel, Ding Yi realizes, reveals, and actively engages in the arrival of the macro-world.

If delirium experience in the trilogy mainly features the intense sensual perception and projection that challenges characters' cognitive self and expands and centralizes the estranged world, then, in *Ball Lightning*, these features are further combined with an alienation from humans' emotional relationship, which further weakens and marginalizes the presence of humanness. Lin Yun and Dr. Chen both experienced the trauma of losing their parents, and both are enchanted with what killed their parents (new-concept weapons and ball lightning). Lin Yun witnesses her mother's dead body after being swarmed by attack-bees, a biological weapon:

I remembered my last sight of Mom in the hospital, all the skin on her body festering, her blackened fingers so swollen there was no way for her to turn a gun [on] herself. . . . Such an experience might turn some people off of weapons, but for others, it made them even more fascinating. I was in the latter group, for whom those fearsome machines possessed the intoxicating power of a drug.¹³⁴

¹³⁴ Liu, Cixin, *Ball Lightning*, 562.

See original Chinese text: 当时我就想到最后在医院 见到的妈妈, 她全身的皮膚也都潰爛了, 她的手指腫脹發黑, 連用手槍自我了斷都不可能.....這經歷可能會使一些人一生遠離武器, 却也會使另一些人迷上它, 我屬於后者, 恐怖的機器潛藏着一種力量, 正是這種力量像毒品一樣迷住了我。

Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 260.

A similar thing happens to Dr. Chen. In the prelude of *Ball Lightning*, after ball lightning attacked his parents, their bodies turned grey and white with the eyes still lifelike (“*xuxu rusheng* 栩栩如生”). Both experiences feature: 1) the detachment from normal human emotional relationships; 2) the significant attention to details and 3) an enchantment with the cause of their trauma (weapons and ball lightning). For Lin Yun, the power of an estranged world (*new-concept* weapons and the macro-world later on) is so strong that it even drags her affections from her connection with her mother. On the other hand, Lin Yun has a significant sensual memory of her mother’s dead body, but her cognitive anchor finally falls into the power of weapons; the (perhaps primarily) counterphobic impulse is ultimately guided to another estranged world. The alienation of the deepest human emotions shows the start of the deviation of the novel’s narrative from human-centred-narrative. Similarly, for Dr. Chen, the significant confusion between living and death suggests a delirium breaking in cognition and also foresees the state of quantum ghosts between living and death. “栩栩如生” (*xuxu rusheng*) in Chinese is an idiom to describe an artwork that successfully represents a living being as if the latter is real.¹³⁵ When such an idiom about sophisticated objectivity is used in the description of the corpses of one’s parents, who should have a deep emotional connection for the person describing them, a delirium experience arises, emphasizing the traumatic disconnect. Such a cognitive delirium also further detaches Dr. Chen from the present time and situation, which are deeply connected to his human emotional relationship and thus his place in a human-centred narrative. Then, as analyzed in Chapter Two, Dr. Chen remembered that ball lightning became his enchantment, and thus, he would start a new life without describing his personal emotions about his parents’ death.

¹³⁵ See *Handian* 汉典(ChineseDic), “栩栩如生,” <https://www.zdic.net/hans/栩栩如生>.

Another case is Dr. Chen's thirteenth birthday. Besides its ghostly sound, as analyzed in Chapter Two, Chen also saw:

The thing continued to drift like it was looking for something. It finally stopped and found it.....

Its whistle became deeper and intermittent, like bitter laughter.

I could see inside the translucent red blaze. It seemed infinitely deep, and a cluster of blue stars streamed out of the bottomless haze, like a star field seen by a spirit rocketing across space faster than the speed of light.¹³⁶

In the depiction of macro-fusion in a third-person voice, a similar scene appears again:

Then came the strangest marvel of all: from its ghostly depths, the blue sphere radiated a multitude of glittering stars that turned immediately into objects in various sizes when they reached its surface.¹³⁷

Ball lightning and macro-fusion are both from the macro-world. Both presented “infinite depth” or “ghostly depth,” with numerous “stars” exploding outside, making the ghostly call structurally resonant. But more important is the difference in the text: Dr. Chen's first-person depiction contains subjective metaphors with non-linear thinking that show intensive sensory experience: the sound as “bitter laughter,” and the “stars” as if in the eyes of a flying spirit (it is notable that this image also appears in Singer's spectral song in the trilogy). This is the sign that the character's thinking and emotional perception are engaging in the embodied experience, showing the existence

¹³⁶ Liu, Cixin, *Ball Lightning*, 15.

See original Chinese text:

它继续飘着，仿佛在寻找着什么，终于它找到了。.....

啸叫声变得低沉，断断续续，仿佛是冷笑。

半透明的红色辉光似乎有无限深，从那不见底的光雾的深渊中，不断地有大群蓝色的小星星飞出来，像是太空中一个以超光速飞行的灵魂所看到的星空。

Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 3-4.

¹³⁷ Liu, Cixin, *Ball Lightning*, 546.

See original Chinese text: 这时，最不可思议的奇观出现了：在蓝太阳那幽深的内部，有许多璀璨的小星星放射状地飞了出来，那些星星一飞出光球的边界，立刻变成一个个物体，大小不一，.....

Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 252,

of “character” as an independent literary mechanism. In contrast, the text’s depiction of macro-fusion does not contain subjective thinking and emotional perception, showing that it is presented through the (disembodied) third-person author’s voice.

Dr. Chen’s delirium is already completed, while Lin Yun’s delirium experience will only be completed after she really encounters the macro-world. Before that, her deviated cognitive gravity goes further with her significantly developed enchantment with weapons. The text highlights her “madness” or irrationality several times. When talking about Lin Yun’s growth, her father described her as “*fengkuang* 疯狂(mad)” in his final conversation with Lin Yun’s quantum ghost.¹³⁸ Her former supervisor and military superior, General Du, described her as “someone who treats guns like drugs 一个把武器当毒品的人” and thus regarded her as not suitable for research on weapons;¹³⁹ her over-reliance on innovative weapons is also considered strategically irrational in the war in the final public meeting organized by General Du.¹⁴⁰ The text thus delineates her addiction as somehow contradicting rationality and reason and thus *aberrant* (though the fetishistic Lin Yun is still human). Such aberrancy echoes Lin Yun’s emotional and cognitive detachment from the human world.

The peak of such cognitive alienation is Lin Yun’s decision to commit suicide, while Dr. Chen has quit the ball lightning R&D program before the war starts. This cognitive alienation is so intense and so incomprehensible to humans that the text hides the depiction of Lin Yun’s inner world at that moment. However, it still reveals part of it in Lin Yun’s delirium experience facing the string (the nucleus of macro-atoms):

¹³⁸ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 261.

¹³⁹ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 244.
English translation: Liu, Cixin, *Ball Lightning*, 601.

¹⁴⁰ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 245.

.....but the string bent and contorted continuously in the air in a strange dance, unpredictable, but full of a wild vitality that exerted a strong attraction and hypnotic power on the observer. Later, theoretical physicists gave it a poetic name: “stringdance.” “What are you thinking?” Ding Yi asked, without taking his eyes off the macro-nucleus.

“It’s not a crystalline snake or a hanging(-)proof rope,” Lin Yun answered. “It reminds me of Shiva, the eternally dancing god of Hinduism. When her dance stops, the world will be destroyed with a bang.”

“Brilliant! You seem to have found a sensitivity for abstract beauty.”¹⁴¹

Firstly, the “hypnotic power,” together with the “wild vitality” of the stringdance as the luring invitation from the estranged world, which directly refers to an alienation of Lin Yun’s neurological system, suggesting that the observer’s cognition and sensing are thoroughly caught by and imbued in the approaching macro-world (interestingly, here the narrator and author’s voices also blend in a third-person descriptive tone). Furthermore, Lin Yun’s synaesthetic connection between the stringdance and Shiva is also the maximization of the cognitive distortion in delirium experience: it is not just between an object and a living being (as Cheng Xin experienced); Shiva, as the highest deity in Hinduism, is the extremist version of living being, whose will determines all the life and death in the human world, and whose will is released through intense bodily movement: dancing. Thus, the macro-world has not only been cognitively empowered but also been completely perceived as the dominating power over the human world.

Ding Yi is a special human character in both *Ball Lightning* and the trilogy. In *Ball Lightning*, he is a proactive pursuer of the macro-world and almost the human agency and herald of it in the human world, who reveals the physics essence of ball lightning (a macro-electron) and further

¹⁴¹ Liu, Cixin, *Ball Lightning*, 507-508.

See original Chinese text: 这是一种奇怪的舞蹈，变幻莫测且充满狂放的活力，对观察者有一种强烈的吸引和催眠作用，以后，理论物理学中多了一个充满诗意的名词：弦舞。

“你想到了什么？”丁仪目不转睛地盯着宏原子核问。

“既不是水晶蛇也不是无法自缢的绳索，”林云回答，“我想到了湿婆，印度教中永恒舞蹈着的神，她的舞一旦停止，世界就会在巨响中毁灭。”

“很妙！看来你最近对抽象之美敏感起来了。”

Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 233.

recognizes the existence of the whole macro-world behind it, which marks the transition of the story from a mere adventurous exploration of a natural phenomenon to the arrival of another grand and dominating quantum world.¹⁴² Besides, the climax of the story (Zheng Min's appearance, the macro-fusion and Lin Yun's talk with her father) is narrated in Dr. Chen's paraphrasing of Ding Yi's first-hand experience. The last third of the story thus contains the voices of Ding Yi, the narrator and Dr. Chen, which extends the influence from the non-human-centred space.

The new-concept weapon R&D centre in the army can be seen as the realm inhabited largely by Lin Yun, Ding Yi and the ghostly macro-world. It is also from the first chapter, "Strange Phenomena IV (*Yixiang zhisi* 异象之四)" after Dr. Chen leaves the army that Ding Yi starts to take over the narrative. In this chapter, Dr. Chen finds his computer chip attacked by ball lightning is in a quantum state; he thus calls Ding Yi, and the latter tells him about the systematic mechanism of quantum ghosts.¹⁴³ When quantum ghosts formally reveal themselves on the stage, Dr. Chen chooses to retreat to the human mundane world, and Ding Yi, who claims that he is the only one who understands Lin Yun,¹⁴⁴ moves closer to the narrative centre on the human side. He guides Dr. Chen, persuades him to find something else to do, and drinks with him—after the war, it is also during their drinking that Ding Yi tells Dr. Chen the rest of the story, overshadowing the climax of the story under the influence of their half-drunken minds. The deliberate highlight of drinking makes rationality and order fall down; in this atmosphere, with the centralization of Ding Yi as the storyteller from the estranged space, the text further accentuates the presence of the macro-world and quantum ghosts. This also echoes the physics rules of quantum ghosts: the weaker the observers' subjective consciousness is, the stronger the ghosts' existence can be. As

¹⁴² See the ninth chapter "Macro-Electron (*Hong dianzi* 宏电子)" of the second section of the novel.

¹⁴³ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 189-191.

¹⁴⁴ Liu Cixin 刘慈欣, *Qiuzhuang shandian* 球状闪电, 249.

Dr. Chen imagines, when he grows older and will finally get into the ultimate dream/drunken state - death - this will be the time he can see the quantum rose once again.¹⁴⁵

Significantly, Ding Yi is also the first person who physically touches the weapon from Trisolarans. Four hundred years after Lin Yun's death, Ding Yi also dies due to his physical touching of weapons as SF novums. Trisolarans' fleet sends a mysterious detector "Waterdrop (Shuidi 水滴)" to humans. With its delicate appearance, humans regard it as a gift, but Ding Yi, who has ended his hibernation and offers to inspect it, senses its danger. Under the humans' innocent belief that Trisolarans hold a similar worldview to them, Ding Yi taps the Waterdrop with a hammer and notices that its molecular structure is extremely stable, at the very moment that he realizes that it is actually an advanced weapon that is harder than any matter in the Solar System (later in the war, it crashes through almost the whole human fleet). This firstly begins to unveil the cruel and unfamiliar truth that Trisolarans are significantly technologically more advanced than humans. This moment, just like his discovery of the macro-world, once again makes Ding Yi a prophet who senses and touches the estranged world with which humans are unfamiliar.

Conclusion

This chapter discussed humans' role in the transition of narrative gravity. The text generates cognitive estrangement deriving from the characters' cognitive experience that could speculatively shake their subjectivity, and the text's construction of characters' cognitive experience is the projection of the author's personal emotions and cognitive experience towards the non-human-centred imagined space, which is realized through the use of macro-details specially on non-human-centred novums and relative plots. This chapter is an alternative or interconnected perspective to what has been analyzed in the previous two chapters: during the arrival of the

¹⁴⁵ Liu Cixin 刘慈欣, *Qizhuang shandian* 球状闪电, 278.

overpowering estranged world, humans are marginalized but not otherized. This does not contradict with the argument regarding Liu Cixin's detachment from human-centred narrative because the detachment is the aim and result, while humans are the medium. The process of detachment shows the presence of humans, but this does not mean that humans are the centre of the narrative. It is *humans* that create and are broken by this dream; it is human eyes through which the dream is constructed; it is *human characters'* experience that nourishes the power of the estranged world, because power can never exist with only one side. Only with humans' presence (although at the edge of the stage) can the narrative structure become non-human-centred.

Chapter 5: Conclusion: The Earth in Heaven (*Tianshang renjian* 天上人间)

The systematic appearance of ghosts (as metaphors or real spirits) and the desire surrounding weapons as SF novums in Liu Cixin's *The Three-Body Problem* trilogy and its prequel reveals the transformation of narrative gravity from the human-centred story to a non-human-centred space (in *Ball Lightning*, it is the macro-world; in the trilogy, it is the universe that is dynamically and malleably constructed through the interactions among different cosmic civilizations), which I call heaven-centred narrative. In this process, ghosts 1) metaphorically appear at the beginning of both works as the text's warning of the approaching of the non-human-centred space; 2) influence and lead the human story at key turning points and 3) bring characters from human-centred space to the non-human-centred space. The third function is largely actualized through the characters' desire (including sensual and aesthetic attraction and physical intimacy) towards weapons as SF novums in the novels. The latter either directly makes characters ghosts or summons a symbolic ghost to separate an independent floating signifier from the original signifier-signified unity of the character and trivializes the signified more normatively considered bonded to humans' story. Such a desire is weapon fetishism. The whole process of transferring the narrative gravity is engaging and aggressive from the perspective of human characters, of whom the intense cognitive experience accompanied by the breakdown of cognitive patterns (especially the self), which I call "delirium experience," is also the way the heaven-centred narrative is dynamically empowered. Characters' experience belongs to a complete chain of cognitive experience: I argue it is only through characters' delirium experience that readers can feel cognitive estrangement brought by the non-human world; characters' experiences are the projection of the author's strong emotions towards the estranged world, and such a projection is done through the use of macro-details, or the high volume of information with sensual details and varieties of metaphors, specifically on the

depiction of SF novums as part of the non-human-centred worldview and related plots. Thus, humans play an important role in the text's experiment of removing them from the centre of narrative structure.

Chapter One introduced the arguments and outlined the scope of relevant scholarship and my approaches to extend that scope. I pointed out that although scholars have briefly noted the existence of non-human-centred textual space and spectrality in Liu's SF in separate contexts, *how* the transcendence of humans specifically works, and its relationship to spectrality, are left open. The theoretical context of haunting and fetishism in critical theories and psychological theories are discussed, and I pointed out the space left for Liu's two works to make a difference: a possibly non-human-centred hauntology and a fetishism (specifically in literature) that denies humans' body-self. Darko Suvin's conception of cognitive estrangement is also discussed, and I point out that Liu's two works expand it into a nesting doll structure. The following three chapters were arranged as three inter-related entry points of the topic: the overall narrative structure combined with spectrality, the micro-scrutinization of the process of characters' spectralization as one of the ghosts' functions pointed out in Chapter Two, and humans' cognitive experience facing the approaching of the non-human-centred world. Chapter Two focuses on the chapters in which the text constructs the non-human-centred space (beginning and climax chapters in both works, and chapters named after "Strange Phenomena," "Lin Yun" and terms related to macro-world in *Ball Lightning*) and discussed ghosts' three functions through close readings. As the herald of the non-human-centred space, the systematic appearance of metaphorical ghosts at the beginning of both works not only declares the presence of another estranged world that humans cannot fully comprehend and control but also reverses the narrative subject from humans to the estranged world through enchantment and the character losing their sense of valid self. This was exemplified by

the metaphorical ghost in the prelude of *Ball Lightning*, and the “Ghost Countdown” at the beginning of the trilogy that marks the first direct touch between the protagonist and the non-human-centred world. Also, in *Ball Lightning*, as the important manipulator of plots, (quantum) ghosts give information to protagonists from the estranged world and completely change the story’s direction. Quantum ghosts, as the empowering mechanism that transforms human characters from protagonists in the humans’ realm to part of the ghostly non-human-centred world, are central to *Ball Lightning*. For example, through the close reading of the spatial settings of mountain and lightning and the depiction of Lin Yun’s un-humanness in the chapter “Lin Yun I” in *Ball Lightning*, together with the contrast between Lin Yun as a human and Lin Yun as a quantum ghost, I point out that Lin Yun is doomed to become a ghost from the beginning, and her true self belongs to the macro-world. In summary, all the three functions show that Liu Cixin’s SF ghosts are not the derivatives of humans’ stories but the heralds from a grander world that trivializes the former; ghosts in the two works are endowed with more agency than humans and conversely control humans’ world.

Chapter Three continued the close analysis of the third function of ghosts combined with the investigation of the function of weapon fetishism. As shown in Lin Yun’s case, weapon fetishism is the ghostly affect that drives her to be intimate with the macro-atomic bomb and become a quantum ghost; weapon fetishism is an echo of Lin Yun’s inevitable spectrality. I further discussed the systematic use of suicide in the two works through a comparison and contrast analysis, showing that weapon fetishism is the key to breaking the dichotomy between life-drive and death-drive: with the existence of Lin Yun’s true body (*zhenshen* 真身) as a ghost, death-drive is the life-drive to a ghost (which forms a contrast to the mass suicide of scientists at the beginning of the trilogy,

in which the transformation from human identity to the non-human-centred universe fails). I also introduced the example of Singer.

I first analyzed the construction of the non-human-centred worldview through the many terms that remain unexplained in the trilogy, and how the text further cancels the presence of humans (even though this chapter is paradoxically the most important turning point of the human story) through separating independent floating signifiers (Singer and Star-Plucker) from their original signified in humans' story (the attacker and the target – human civilization) and the emotional relationship among them. I then moved on to analyze weapon fetishism surrounding the Dual-Vector Foil. The clear correspondence between Dual-Vector Foil and the gift in Singer's song, through the characters' intimacy and aesthetic appreciation of them, makes the alloy between Singer and Star-Plucker as floating signifiers and the poetic space in the song possible. The literary work enables weapon fetishism to happen on two sides: Singer and the protagonist's aesthetic appreciation towards Dual-Vector Foil/the gift, and the receiver's intimacy and the subsequent spectralization of the two protagonists in the song. In this case, weapon fetishism breaks the boundary between imagination and reality, enabling the equal agency of the two sides; the deprivation of signifiers and half-inclusion of them into the poetic space, together with the centralization of the non-human-centred worldview, further transfers the narrative gravity to the non-human-centred world.

Chapter Four systematically discussed the role of humans in the process of narrative gravity transference from the human to the non-human: the predatory and aggressive cognitive experience experienced by humans when they face the approaching of the non-human-centred world is the dynamic empowering of the latter. I argue that there exists a nesting doll structure of cognitive estrangement that contains two layers: human characters' delirium experience, or intense cognitive

experience that detaches them from a human-centred worldview and emotional relationship and shakes the boundary of their human self, accompanied by excessive focus on the sensual details of the approaching estranged world, which serves to generate the same cognitive experience in readers' reading experience. I analyzed the depiction of Cheng Xin facing the two-dimensionalization of the Solar System, in which Cheng's delirium experience is shown in the distortion of sensual boundary in her projection of feelings of living beings onto the physical phenomena she witnesses. I also further analyzed Wang Miao's delirium experience facing the Ghost Countdown and his similar cognitive distortion. The text's construction of this cognitive experience is influenced by Liu Cixin (as the author)'s personal cognitive experience and emotions towards the imagined estranged world in his SF reading and commentary. I analyzed Liu Cixin's SF commentaries about his cognitive experience, especially his initiation of a "SF religion" that equals the estranged SF world to a lord above humans. I also investigated how he projected such experience into his works to transcend human-centred narrative through his use of macro-details, or the use of high volume of information and sensual details together with metaphors, specifically used in his depiction of SF novums and relevant plots, such as stringdance and macro-fusion in *Ball Lightning*.

To conclude, this study discusses the challenge to human-centred narrative in Liu's two SF works from three different perspectives and meanwhile provides an innovative understanding of spectrality, fetishism and structure of cognitive experience in Liu Cixin's works. It is now time to go back to the title of this chapter: "The Earth in Heaven (*Tianshang renjian* 天上人间)." The words "*tianshang renjian* 天上人间" originally means the significant difference between heaven

and earth.¹⁴⁶ This is a good metaphor for Liu Cixin's literary experiment that highlights a heavenly conception of the universe and trivializes the human realm. But I choose to translate this Chinese word into its literal meaning: the earth in heaven. This translation speaks to the human impulse in Liu's works under the surface of that heavenly conception of the universe. If we look over the whole story again, we will find that ghosts suggest the intense cognitive challenge to the boundary between life and death, fetishism suggests the challenge to the boundary of body and self, and delirium experience challenges the boundary of cognition itself. These main threads that construct the detachment from the human realm actually point to a calling for a more complete and thorough cognitive experience among humans. From this perspective, the detachment from the human realm in Liu's two SF works leads us to the root of such eagerness in the human realm: if the detachment from being human is meanwhile a complex representation of what being human means, then what is going on in the human world, on Earth? After all, heaven is far from the earth, yet when we reach heaven through imagination, we are already building an earth in heaven.

¹⁴⁶ See "*tianshang renjian* 天上人间," *Handian*, https://www.zdic.net/hans/%E5%A4%A9%E4%B8%8A%E4%BA%BA%E9%97%B4#google_vignette.

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Appendix: Charts of Core Concepts

Heaven-centred narrative

	The non-human-centred world/space that bears this narrative	Where in the text	In the non-human-centred world, what/who are included in the text	Overall, how this narrative works
<i>Ball Lightning</i>	The macro-world: a much larger space coexisting with human material space, with same atomic structure but much larger atomic volume. Quantum physics works in the macro-world but the latter includes physics rules that are unknowable to humans.	Prelude, chapters titled after Lin Yun's name or terminologies related to the macro-world (which include the beginning, key turning point, climax and ending)	Ball lightning (as a macro-electron belonging to the atomic structure of macro-world), macro-atomic bomb, quantum ghosts (and their emotions and worldview)	In these chapters, 1) Plots are initiated and dominated by the macro-world 2) Emotional relationship among humans are weakened/interrupted/replaced by their relationship with macro-world (e.g., Dr. Chen's desire toward it overpowers his emotional connection with his parents; Lin Yun being enchanted by the beauty and power of weapons like ball lightning and macro-atomic bomb that replaces her traumatic motivates about her mother's death) 3) Human characters' worldview and/or self-identity are shaken and overpowered by the non-human centred world (e.g. Lin Yun's ultimate self-identity as a quantum ghost)_

The trilogy	(Everything in/from) the universe outside of the Solar System	The beginning (the third chapter of the first volume) and climax of the trilogy (the first chapter of fifth section of the final volume, <i>Death's End</i> , the final third of the final volume) and the rest of the text after Singer's chapter	Other cosmic civilizations (and their independent worldview, their inventions, what they send to the Solar System, etc.) the (currently three-dimensional) universe and the malleable physics rules generated through cosmic wars	Essentially similar to the above.
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Ghost

	What	Where in the text	Characters directly engaged	Narrative functions
Ghost Countdown	Metaphor of Sophon waving counting down on humans' retina	Beginning of the trilogy (the third chapter in the first volume)	Wang Miao (witnesses and touches).	Declaring the existence of an unknowable universe and the macro-world
Ghost metaphor of ball lightning	Metaphor of ball lightning that kills Dr. Chen's parents	Beginning of <i>Ball Lightning</i> (prelude)	Dr. Chen (witnesses), Dr. Chen's parents (touch)	Declaring the existence of an unknowable universe and the macro-world

Zheng Min's quantum ghost	Quantum ghosts: humans attacked by ball lightning/macro-atomic bomb who enter quantum superstition state according to quantum mechanics (some other rules of which nevertheless differ in the macro-world)	Key turning point; the middle (fifth chapter) of the final section of <i>Ball Lightning</i>	Zheng Min (the ghost that gives the key formula of macro-fusion that helps China win the war), Dr. Chen and Ding Yi (as witnesses)	Significant intervention and change in humanity's story (changing the direction of the war because of her ghost identity)
Lin Yun's quantum ghost	Lin Yun's quantum ghost who appears after macro-fusion (Lin Yun's suicide as a human)	Ending of <i>Ball Lightning</i>	Lin Yun (appears at the fusion point and talks with her father about her past; gives quantum rose to Dr. Chen), Ding Yi (witnesses), Lin's father, Dr. Chen.	Significant intervention and change in humans' story (revealing the unknowability of macro-world and changing humans' worldview). "Becoming a ghost" as a transformation of characters into the non-human-centred world
Ghosts in Singer's song	A couple who enjoy their "spiritual flight"	Climax of the trilogy; the first chapter of fifth section of the final volume, <i>Death's End</i>	The couple (one gives gift to another and then both start a flight as ghosts), Singer (sings this song).	"Becoming a ghost" as the transformation of characters into the non-human-centred world (see next chart)

Weapon

	What	Where in the text	Characters directly engaged	Character-weapon relationship	Narrative functions
Macro-atomic bomb	Atomic bomb functioning through nuclear fusion	Climax (near the end) of <i>Ball Lightning</i>	Lin Yun	One of the inventors. Commits suicide by launching and staying close to the bomb. Desires physical intimacy and appreciates the beauty of the bomb.	Enables the physical transformation of the core human character into a (quantum) ghost, removing the core proactive power of humanity's story in the novel.
Dual-Vector Foil (thereafter DVF)	A piece of two-dimensional space that can transform three-dimensional space into two-dimensional space	Climax of the trilogy; the first chapter of fifth section of the final volume, <i>Death's End</i> , the final third of the final volume.	Singer, all humans in the Solar System	Singer: launcher/user; appreciates the beauty of DVF Human civilization: target (DVF's avatar in the poem is the gift between lovers)	As the correspondence of "gift," changing the attacker-target narration (and thus the narrative tone defined by humanity's fate) into the romantic narration suggested by the poem. This transformation also removes any connection to human motivations, emotions.