

A Writer's Dilemma: Gu Junzheng and a Turning Point of Chinese Science Fiction

THESIS

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## Abstract

This thesis analyzes the fictional works of Gu Junzheng (1902–1980), an important writer and editor of Chinese science fiction and scientific essays. As a representative writer of science fiction of his time, Gu Junzheng’s works provide a chance for us to take a glance into a particular moment in the history of Chinese science fiction—the late 1930s and early 1940s, a period that has not been sufficiently studied. Because science is such an important concept in the modern world—C. P. Snow (1959) argues that there is a “scientific culture” in industrialized societies—examining literary representations of science can be helpful for understanding how science gradually yet profoundly changed people’s view of the world. My study sets Gu’s work in the genealogy of Chinese science fiction, which flourished in the late Qing period into early Republican period, fell into a low tide in the 1930s, experienced another round of peak and valley between the 1960s and 1980s, and then has prospered again from the 1990s to the present. Ever since its beginning in China, the genre has been highly political, because science, conceived as a progressive force, was always intertwined with the national discourse. Yet there were also other perspectives in science fiction, and Gu’s works, in particular, brought many new elements to the genre.

Gu was one of only two science fiction writers commonly recognized to have written in the late 1930s and early 1940s. The focus of this thesis is on his four science fiction stories. Other materials—including his scientific essays, prefaces, and editorial

work—produced by Gu and his fellow editors are also referred. Through reading the stories in their historical context, this thesis analyzes Gu’s intentions in writing them, and reveals some of the contradictions behind these intentions. These contradictions sometimes lead to dilemmas that reflect broader issues surrounding the genre at the time. The introduction situates Gu’s science fiction in the traditions of the late Qing “kexue xiaoshuo,” Western “science fiction,” and its relationship with *kepu wenxue* (literature for popularizing science). Chapter 2 examines of Gu Junzheng’s views of science fiction, expressed in a foreword that he wrote for his story collection and articles in the magazine *Scientific Taste*, which he edited. Chapter 3 and Chapter 4 provide close readings of the four stories. Chapter 3 deals with political issues: memory and righteousness in wars, and the topic of intellectuals. Chapter 4 reads the stories from the perspective of gender and morality. Through scrutinizing Gu’s works on the textual level and analyzing the relationship between his works and his literary thought, this thesis seeks to reveal the multiple voices that are reflected in Gu’s science fiction, which was particular to his time. By doing so, I hope to further our understanding of the social and intellectual climate of the 1930s and 1940s China.

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## Chapter 1: Introduction

In recent studies of modern China, science has increasingly been recognized as a key word. Ever since science was first introduced to China by the Jesuits as early as in the late Ming dynasty,<sup>1</sup> science has been taken as a mark of modernity, as well as a product of Western civilization. In late nineteenth and early twentieth centuries China, when Chinese society was experiencing a radical ideological revolution, the terms “Western” and “modern” were almost interchangeable; in a sense, to the Chinese, Western meant modern, and modern meant Western. Yet identifying modernity with Western civilization was, of course, not the ultimate goal. Rather, the identification was a strategic attempt to find a manageable way to lead China toward historical change: to first define the progressive, then copy it, and in the end catch up with or even surpass it.<sup>2</sup>

During the May Fourth New Culture Movement, science was one of the critical terms of the discourse of modernity and enlightenment. Whereas traditional knowledge propagated the idea of a continued adherence to a set body of moral truths embodied in a classical canon, science liberated truth and knowledge from the past and from an elite

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<sup>1</sup> In the 17<sup>th</sup> century, science was an important part of the knowledge that European Jesuits brought to China. Subjects such as mathematics, astronomy and geography, which challenged their traditional understanding of the cosmos, were of particular interest to the Chinese. The Jesuits were keen on dissemination of knowledge of these subjects not only because of the need to promote a different view of the world, but also out of a common interest in competing approaches to learning in 17<sup>th</sup> century Europe. See Mungello 1989: 23–26.

<sup>2</sup> Not all who associated science with the Western modern were pro-modernity. Conservative thinkers also did so to claim the heterogeneity of science and modernity to China, arguing for the preservation of traditional Chinese thought. For instance, in order to oppose the promoters of the New Culture Movement, Liang Shuming (1922) claimed that Chinese local culture had no scientific elements at all and science did not fit China.

group of interpreters of that past. Chen Duxiu (1919) famously called for Mr. Science (along with Mr. Democracy) to oppose old art, ethics, politics, and religion. China was, in the May Fourth discourse, a sick and enfeebled nation infected by a tradition that instilled values of subservience, blind worship of authority, and ritualized behavior. For Lu Xun, one of the leading voices of the May Fourth, science was an enlightening medicine that would cure China of its disease. In sum, the May Fourth generation understood science as a cultural tool with which to pry China from its traditional ethical value system. Though there were conservative opponents to this May Fourth optimism, this view of science has dominated throughout the twentieth century.

Because science is such a critical part of Chinese conceptions of modernity, studying how science is imagined and represented can help us to better understand the changing intellectual climate in a particular period of Chinese history. The significance of science in China is in accordance with the general human condition: in the study of the modern world, science is also a keyword. Many significant modern historical events are related to scientific and technological developments. For instance, the two world wars in the twentieth century had profound impact on all aspects of human civilization. The outbreak of the wars was only possible with the development of new weapons—planes, tanks, artillery, rocket jets, aircraft carriers, nuclear weapons—technological progresses made from the second Industrial Revolution.

Whereas actual developments in scientific research are marked by scholarly endeavors and industrial achievements, people's imagination of science is best seen in "social documents": government files, historical accounts, dairies, letters, and so on.

Literature is a rich mine of such documents. In late Qing literary texts, science is sometimes understood as a kind of magic not too different from that found in premodern legends and fantasies—both were believed to have the capacity to change the physical world.<sup>3</sup> As people’s knowledge of science grew, one would expect to find more accurate representations of science in literary texts. In all kinds of representations of science in literature, science was perceived as something that could serve pragmatic purposes. Many have argued that in China, at least until the mid-twentieth century, science was never undertaken for science’s sake: “Chinese thinkers were not interested in the idealistic view of science, in which science per se is the purpose, or science is to know for knowing. . . ‘Use’ and ‘progress’ are two keywords of Chinese thinkers’ view of science” (Wang Hui 1997, in Wu 2006: 85; see also Lang 1997: 72–74).

This pragmatic view of knowledge was well reflected in science fiction. Early Chinese science fiction, written in the late Qing and early Republican eras, was promoted by cultural elites with the motto that “science saves the nation” (*kexue jiuguo*). For instance, Wu Jianren’s *Xin Shitouji* (New story of the stone) provides a comparison between current China and a utopia: Jia Baoyu returns to the mundane world and finds China of the late Qing corrupt and backward. By accident, Jia Baoyu has a chance to enter the “Civilized World” (Wenming jingjie), a civilization highly developed in science and technology and with an advanced political system. Jia Baoyu travels around the

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<sup>3</sup> David Wang (1997) argues that early Chinese science fiction borrowed much from the tradition of fantasy. Although these works meant to bring to their audience a “different mode of cultural awareness” (263), i.e. the learning of modern science, it often paralleled science with traditional Buddhist and Daoist beliefs. In works such as *Quell the Bandits* and *A New Account of Mr. Windbag*, the rivalry between the two systems was presented with the traditional rhetoric: the two competed with each other in the form of matching magic powers (*doufa*). See Wang 1997: 256, 262–266, 295–301.

country and sees the newest inventions: submarines, immortality, weather controls, etc. Impressed by the development of this society, Jia Baoyu visits a builder of the Civilized World, Dongfang Wenming. It turns out that Dongfang Wenming is the Zhen Baoyu from *The Story of the Stone*: Jia Baoyu's mission to "mend heaven" with a piece of precious jade is fulfilled by Dongfang Wenming. Often referred as a work of science fiction, *New Story of the Stone* can also be read as a utopian story or a work of political propaganda: the ideal state depicted in the novel adopts despotism and is ruled according to Confucian moral standards, though it is also a country filled with the most fantastic scientific concepts and scientific developments. This novel is a typical example of science fiction of the late Qing. Although science fiction writers of the time shared an optimistic view of science, "science" in their fiction was an ambiguous concept. What readers get from this fiction is the idea that science is nearly omnipotent, and that there is thus a necessity to learn science.

It was only into the late 1930s that Gu Junzheng (1902–1980), an editor and writer, wrote several stories which contained practical scientific knowledge that could serve the purpose of education. It would seem that this fiction is a perfect model of the ideal science fiction designed by two generations of cultural elites—the late Qing generation and the May Fourth generation. In terms of literary presentation and the breadth and depth of subjects touched upon, these stories are worth reading. However, these stories were not welcomed by the readers, at least as would be expected. An examination of the reason why this fiction encountered a cold reception will not only reveal the attitude people have toward science at the time, but also reflect some of the

problems with the pragmatic view of science.

If we examine Gu's fictional works, scientific essays and other texts, it is not too difficult to find that there was a tension between Gu's science fiction works and his intentions in writing them: continuing the late Qing science fiction tradition, he sometimes viewed science from the pragmatic perspective, taking it as a tool to change the status quo; influenced by both the science education that he received and Western science fiction that he read, Gu nevertheless realized that science could be a double-edged sword to humanity if used in undesirable ways. Furthermore, in reading and writing science fiction and scientific essays, Gu contemplated the distinction between the two, and formed his own genre consciousness of science fiction. This consciousness was sometimes contradictory, yet it marked the starting point of Chinese science fiction's realization that science is a power that can produce changes in the social order. Based on these observations, this thesis seeks to form a clear account of the tensions in Gu's science fiction works. In so doing, I hope to open a window to a particular moment in the history of Chinese science fiction, when science was just beginning to be treated as an active power to influence social order.

## **I. Defining Science Fiction**

In the West, both the definition of science fiction and the establishing of the genre took a long time. In the nineteenth and early twentieth century, the works that we now recognize as science fiction were not written with a strong genre consciousness. Indeed, early works of "science fiction" may have developed out of, for example, the genres of Gothic fiction

and travel fiction. Mary Shelley's *Frankenstein* (1818), commonly accepted today as the first work of science fiction, was only classified in this fashion in the twentieth century; the name "science fiction" was coined by Hugo Gernsback in 1929, substituting two previous terms "scientific fiction" and "scientifiction."<sup>4</sup> A well-accepted general concept of the genre was only established in the late 1930s (Luckhurst 2005: 5–15).

Even after a subculture arose around the term "science fiction," definitions of the genre were still not consistent. Science fiction is a genre that frequently poaches from or overlaps with other genres and literary traditions, most commonly fantasy. Although theories of science fiction are already well established today, it is still not uncommon for critics to argue with each other over whether a text is science fiction or fantasy, because both genres share a fantastic imagination. Another issue in the study of science fiction is the dichotomy between science fiction and mainstream fiction. Many critics see science fiction as a genre quite apart from the mainstream, but there are clearly many cases where a particular text cannot easily be classified as one or the other: perhaps the dichotomy is a false one, and there is a middle ground between the two poles.<sup>5</sup>

There have been numerous definitions of science fiction and the genre is a fluid one. In his history of science fiction's revolution, Adam Roberts (2006: 1–3) categorizes some of the most influential definitions into three groups: (1) definitions based on the subject matter of the work, represented by Darko Suvin's and Damien Broderick's

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<sup>4</sup> The two terms were also proposed by Gernsback, in 1923 and 1924 respectively. The latter is a contraction of the former. Gernsback then used "science fiction" in his magazine *Science Wonder Stories* in 1929, which was adopted by its rival magazine, *Astounding Stories* in 1938—the magazine changed its name to *Astounding Science-Fiction* in that year. After that, the term science fiction was widely accepted. See Luckhurst 2005: 15–16.

<sup>5</sup> Brigg (2002) develops a concept "span fiction" to name this middle ground area. His study reminds us of the inaccuracy of separating science fiction from the "mainstream."

influential judgments. Darko Suvin calls science fiction “a literary genre or verbal construct whose necessary and sufficient conditions are the presence and interaction of estrangement and cognition, and whose main device is an imaginative framework alternative to the author’s empirical environment” (in Roberts 2006: 1). (2) Represented by the writer and critic Samuel Delany, some take science fiction as a reading strategy and thus emphasize readers’ acceptance of it. (3) Other critics who define science fiction in various ways, although their opinions differs from each other, tend to take science fiction as “a form of cultural discourse (primarily literary, but latterly increasingly cinematic, televisual, comic book and gaming) that involves a world-view differentiated in one way or another from the actual world in which its readers live” (Roberts 2006: 3). These competing definitions suggest to us that even today, the understanding of the genre is still a highly unstable one, and different readers can have different definitions of it.

If we consider these questions in the Chinese context, things become even more complex. More variables are involved, including definitions of modernity and science. As mentioned above, Chinese intellectuals tended to see science as something unique to Western civilization, having originally developed in ancient Greece. This idea was also accepted in the Western world, and its influence has lasted all the way to this day. But this idea of the absence of science in premodern China is strongly Orientalist. Joseph Needham has famously argued against the ingrained notion that “not only all modern science, but science as such, was characteristic of Europe, and Europe only, from the beginning. . . . The counterpart of this is a determined effort to show that all scientific developments in non-European civilizations were really nothing but technology” (in Hart

1999: 192). As Needham suggests, the fact that modern science developed in Europe should not be used as a rationale for denying the existence of other scientific systems, such as that in China.

The study and definition of science would require a book-length work and is beyond both the scope and the purpose of this thesis. The reason I raise this issue is to draw attention to the importance of definitions in the study of science-related subjects. To a certain degree, definitions determine the nature of what one studies. In the study of science fiction, especially early Chinese science fiction, definitions are of particular importance. Just as in the West, early Chinese science fiction did not have a fixed genre name: although the label *kexue xiaoshuo* (scientific fiction) existed, it was not a stable category, and some similar kinds of fictional works could be found under other categories, such as *lixiang xiaoshuo* (ideal fiction), *jiuguo xiaoshuo* (nation-saving fiction), *youxi xiaoshuo* (playful fiction), etc. An extreme example is Wofoshanren's (Wu Jianren, 1866–1910) story “Guangxu wannian” (The ten thousandth year of the Guangxu reign) published in 1908: it was labeled “*lixiang kexue yuyan jifeng huixie xiaoshuo*” (ideal scientific allegoric satirical humorous fiction) when published in *Xiuxiang xiaoshuo* (Illustrated fiction). The fact is that early Chinese science fiction used science to achieve non-scientific purposes, most often political. Given the hybridity of late Qing fiction and the popular trend of creating labels for fiction of the time, it is reasonable to argue that these labels did not indicate genres in today's sense of the word. Even by the 1920s, a specific science fiction genre consciousness was still not established.

This uncertain characteristic of the works adds to the difficulty in identifying texts



of science fiction, and that helps to explain why recent studies of Chinese science fiction use different criteria to judge whether a text is science fiction or not. Many scholars admit that defining an exact corpus of early science fiction texts is a difficult and perhaps controversial task, and thus often avoid doing so. As far as I am aware, there is no study that specifically deals with the definition of early Chinese science fiction. In existing studies, identification of texts is often done in a case-by-case manner. Some scholars, such as Wu Yan, Yang Bei, and Fang Xiaoqing, choose to adopt current standards, looking for correct use of modern science and tending to exclude those works with “superstitious” elements. As has been noted above, this view does not take consideration of the historicity of the gradual acceptance of modern science in China; it thus suffers from anachronism. Some researchers choose to use a much broader definition—regardless of the topic or central idea of a text, if it includes vocabularies of modern science, it is considered science fiction. Lin Jianqun’s studies are typical of this view. Wu Xianya (2006) tries to use “scientific fantastic fiction” (*kexue huanxiang xiaoshuo*) and “scientific enlightening fiction” (*kexue qimeng xiaoshuo*) to distinguish the narrower view and the broader view of science fiction, but the different labels reveal a skeptical attitude toward the naming of the genre—the two kinds of “science fiction” are believed to be different from each other. Wu suggests that although the two are often dealt with under the same category, they deserve separate attention because of their different literary forms. By contrast, Chen Pingyuan (2006) and Ke Qiaowen (2006) insist on using the term *kexue xiaoshuo* (“science fiction” or “scientific fiction”) that was used in the late Qing and Republican periods. Their choice can be read as an attempt to historicize early

Chinese science fiction and to view it as its contemporaries did. Another view is not based merely on the literary characteristics of a text: David Wang (1997 and 1998) uses the apt terms “science fantasy” (*kehuan xiaoshuo*) and “technological fantasy” to “stress the hybrid quality of this species of late Qing fiction” (1997: 253). The terms not only vividly show an important characteristic of the fiction, but also suggest that how to define science fiction has been an important issue in the study of Chinese science fiction. Aside from suggesting the differences between early Chinese science fiction and the commonly accepted understanding of “science fiction” today, he also includes *Quell the Bandits* (Dangkou zhi, 1847), which is usually categorized as a military romance, in his discussion. The choice is made based on both the style of narration and the historical issues reflected in the text: *Quell the Bandits* is considered to be an earlier example of the late Qing narrative mode in science fiction, which also reflects some “historical subjects” that are dealt with in late Qing science fiction—namely, national crisis and imagining the future.

As Yang Bei (2006) points out, these different views of science fiction impede communication among scholars, and the field suffers from many researchers acting on their own. Yet I agree with her suggestion to distinguish between the “over-general” *kexue xiaoshuo* and the stricter *kehuan xiaoshuo*, and create a clearer framework for the study of science fiction. As I see it, which particular definition we should adopt is only secondary; a more urgent issue is how to view the genre. The first choice that we now face is whether we should examine the texts with a single set of rigid criteria, or see them in their historical and cultural contexts. Viewing different texts, each with their respective

rich backgrounds, with a universal standard would seem meaningless. It makes more sense to adopt an open definition and to seriously consider the context—the historical and cultural background—when reading a text. This is the approach I adopt in this thesis.

## **II. A Brief History of Chinese Science Fiction**

The Chinese term for science fiction currently used is *kehuan xiaoshuo*, an abbreviation of *kexue huanxiang xiaoshuo* (scientific fantastic fiction), translated from Russian in the mid-twentieth century (Kong 2003: 37). Compared with other terms, such as the earlier *kexue xiaoshuo* (scientific fiction) and *kexue shenhua* (scientific myth), this term clearly suggests two vital characteristics of the genre: the scientific and the fantastic. In this thesis, I use the English term “science fiction” in a broad sense to include most of the works that are called *kexue xiaoshuo* and *kehuan xiaoshuo*. In my understanding, science fiction is centered around the relationship between science and humans, and shows a degree of knowledge of science.

Here I would like to introduce another concept, *kepu wenxue* (abbreviation of *kexue puji wenxue*, literature for popularizing science). This term was also translated after 1949 from the Russian and has strong socialist overtones. It is often paired with the term *kehuan xiaoshuo*: whereas the latter is used to indicate fantastic fiction, *kepu* literature refers to non-fantastic works with scientific elements, targeted at common people and invested with an educational purpose. The term includes “scientific essays” written before 1949. *Kepu wenxue* or *kepu duwu* (works for popularizing science) are important to the subject of this thesis because the educational purpose of science fiction is one of

the central issues I consider. When too much of a burden of carrying an educational mission is placed upon science fiction, it tends to become *kepu* literature. As will be shown in subsequent chapters, Gu Junzheng's science fiction is sometimes contradictory, because he wanted it to be both educational and fantastic, which are characteristics of two different science fiction styles or genres, respectively.

According to Ye Yonglie's research, Huangjiang Diaosou's "Yueqiu zhimindi xiaoshuo" (The moon colony, 1904) was the first work of Chinese science fiction. Some criticize the criteria that Ye uses in making this judgment as "out of date" because they bear a strong influence from Russian socialist literary theories,<sup>6</sup> yet this work is still the accepted starting point of Chinese science fiction. The only exception is *Quell the Bandits*, written in 1847, which David Wang categorizes as science fiction (1997 and 1998). Some other frequently discussed works of science fiction of the late Qing and early Republican periods are: Haitian Duxiaozi's *Nüwa shi* (Nüwa stone, 1905), Donghai Juewo's (Xu Nianci, 1875–1908) *Xin Faluo xiansheng tan* (A New Account of Mr. Windbag, 1905), Lao Shaonian's (Wofoshanren; Wu Jianren) *Xin Shitou ji* (The new story of the stone, 1905), Biheguan Zhuren's *Xin jiyuan* (New era, 1908), Wofoshanren's (Wu Jianren) "Guangxu wannian" (The ten thousandth year of the Guangxu reign, 1908), Zhuodai's (Xu Zhuodai, 1881–1958) "Mimi shi" (Secret room, 1912), and Zhu Minxian's "Nü boshi" (The female doctor, 1917), etc.<sup>7</sup> Critical to the development of Chinese science fiction was the translation of foreign science fiction works, mostly from Europe

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<sup>6</sup> See Zhang Zhi 2006: 23.

<sup>7</sup> Zhang Zhi (2006) provides a relatively comprehensive list of translated and original works between 1900 and 1920s, which is based on earlier research by Lin Jianqun (1998), Helena Heroldova and Li Guangyi, etc.

and Japan, beginning around 1900.<sup>8</sup> Most Chinese science fiction of this time was published in fiction journals. All of the four important fiction magazines, *Xin xiaoshuo* (New fiction), *Xiuxiang xiaoshuo* (Illustrated fiction), *Yueyue xiaoshuo* (Fiction monthly), and *Xiaoshuo lin* (Fiction forest), had sections for *kexue xiaoshuo*. Almost all authors wrote other kinds of fiction at the same time as they wrote works of science fiction.

Many of the works written before the 1910s portray a utopian world, usually set in the future, that constitutes an allegorical reflection on the external and internal dangers that China was facing in the early twentieth century. Most scholars of Chinese science fiction consider these works to have been strongly influenced by the nationalist discourse of the day.<sup>9</sup>

These works are often filled with scientific inaccuracies and can even seem absurd by today's view. Whereas some argue that these mistaken understandings of science are the product of superstition rather than science (Wu and Fang 2006), others take them as reasonable approximations of contemporary understandings of science from that particular historical period (Chen 2006; Fang 2008).<sup>10</sup> In one of the most inspiring works in this field, David Wang further reminds us to pay attention to the epistemological and narrative reasons that drive these authors to write science fiction: the exploration that

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<sup>8</sup> Ibid.

<sup>9</sup> For example, Lin Jianqun (1998) argues that the four major topics of late Qing science fiction are “calling for saving the nation with science,” “reposing hopes in political reform,” “awakening of national consciousness,” and “promoting feminist activities.” Fang Xiaoqing (2008: 262) reduces these four points into “saving the nation” and “enlightening.” Zhang Zhi (2006) depicts late Qing science fiction and early Republican science fiction with the words “dream of constitutional monarchy” and “dream of saving the nation with science,” respectively.

<sup>10</sup> Fang (2008: 263) calls this period “pre-scientific” (*qian kexue*) period, which is characterized by the leftover of superstitious beliefs, authors’ lack of systematic science education, and the impatient radical attitude toward progress in the enlightenment period.

science fiction makes into social life is the result of a “literary as well as an intellectual effort to grapple with fictional explorations of the frontiers of reality and truth” (1997: 255). Wang is suggesting that we look at early Chinese science fiction from within: if we take a step back from the immediate social background, and think about science fiction’s more ambitious goals to reveal patterns of human activities, we find that Chinese science fiction shares the same ultimate aims as Western science fiction. Wang (1997: 253) considers science fantasies of this time to have “set forth the terms of China’s modernization project, both as a new political agenda and as a new national myth.” This judgment is sound: authors of this fiction could not resist the impulse to imagine the future of China as a nation, or alternative paths for its development. Although I do not argue that late Qing science fiction is completely “political,” it clearly participates in the nationalist discourse of the day. Gu did not choose this genre randomly; he must have intended to join the “tradition” of narrating the national history from an “objective” perspective.

Chinese science fiction is often said to have devolved into “popular” (*tongsu*) literature in the 1910s, losing in the process its serious enlightening purpose.<sup>11</sup> With the advent of the May Fourth New Culture Movement, science was promoted as a cultural ideal and intellectuals introduced various facets of Western science and scientific research to Chinese readers. Contrary to what one might expect, however, science fiction did not prosper accordingly. In fact, there was less science fiction produced in the 1920s than in

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<sup>11</sup> For example, Lin Jianqun et. al. (2008: 263–264) discuss it together with the “mandarin duck and butterfly” fiction, taking the two kinds of popular fiction as the products of the failure of the 1911 revolution.

the late Qing, and in the 1930s the amount of published science fiction was even less. Some frequently discussed texts of the 1920s are: Zei Jun's "Liubai ling liu" (Six hundred and six, 1920), Jing Feng's "Shinian hou de Zhongguo" (China in ten years, 1923), Shen Congwen's (1902–1988) *Alisi Zhongguo youji* (Alice in China, 1928), and Lu Shi'e's (1878–1944) *Xin yesou puyan* (The new humble rustic's simple word, 1928). Lao She's (1899–1966) novel *Maocheng ji* (Cat country, 1932) is also often discussed together with these works. Among these, *Alice in China* and *Cat Country* can also be read as political allegories, showing obvious differences from other works of socially engaged literature of the time, including their fantastical stories.

When it comes to the late 1930s and 1940s, a complete list of science fiction texts can be put here: Gu Junzheng's four stories "Heping de meng" (Dream of peace, 1939), "Zai Beiji dixia" (Under the North Pole, 1939), "Lundun qiyi" (Bizarre pestilence in London, 1939), and "Xing bian" (Sex change, 1940); and Xu Dishan's "Tieyu de sai" (Gills of the iron fish, 1941). No other works of science fiction were published until after the PRC was founded. In the mid-1930s, the "scientific essay" (*kexue xiaopin*) was promoted by left-wing cultural elites affiliated with the journal *Taibai*. Whereas authors of science fiction were few and far between, excellent writers of scientific essays proliferated at the time: Zhou Jianren (1888–1984), Jia Zuzhang (1901–1988), Gu Junzheng, Liu Xunyu (1896–1967), Liu Shi (1903–1968), etc. The emergence of this new genre of science essays could be partly responsible for the relative scarcity of science fiction.

Of course, the current list of extant science fiction works may well be incomplete, both because the scholarly investigation of Republican era literary journals is fragmentary and because the criteria used in categorizing works is dubious. Nonetheless, it is clear that by the 1930s, the genre had fallen from its late Qing peak. I discuss this issue at greater length below.

After 1949, as with other literary genres, the writing of science fiction was very much influenced by politics. The view that science fiction should assist mass education prevailed and the influence of Russian science fiction dominated. The forum for the publication and consumption of science fiction was limited to juvenile newspapers and magazines, suggesting at once its educational role and the fact that it wasn't regarded as "high" literature. In 1954, *Zhongguo shaonian bao* (China youth newspaper) published Zheng Wenguang's (1929–2003) "Cong Diqu dao Huoxing" (From the Earth to Mars), which is usually considered the first science fiction work after 1949. Other major writers of this period included Xiao Jianheng (1930–), Ye Zhishan (1918–2006), Tong Enzheng (1935–1997), and Liu Xingshi (1931–). As has been mentioned, science fiction at this time was entangled with political agendas; authors were required to reflect Marxist and socialist theories in their works.<sup>12</sup> Works of this period bear the strong imprint of *kepu* literature.

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<sup>12</sup> See also Gu Junzheng's "Wo zenyang xie *Bupa nifeng de*" (How I wrote *Not Afraid of Sailing against Wind*), in Gu 1981: 207–222. Gu lists "afraid of making mistakes" as one of the reasons why he wrote much less scientific essays than before: "Shortly after Liberation, I knew next to nothing about dialectical materialism. At that time, on many issues, there were distinguishes between materialist versus idealistic. . . So in order not make mistakes, I dared not to talk about other topics, except for the very basic natural science topics" (208). Although here Gu talks about his experience in writing scientific essays, it can be a reference to the situation of general scientific writing.



During the Cultural Revolution the genre of science fiction virtually disappeared. Only Ye Yonglie (1940– ) published one story in 1976. In the early post-Mao era, science reemerged as an ideal closely associated with modernization and scientists, such as Albert Einstein, were glorified as cultural heroes. Not surprisingly, science fiction experienced something of a boom: by 1984, it returned to many of the mainstream literary magazines, such as *Renmin wenxue* (People's literature), *Beijing wenxue* (Beijing literature), *Zhongshan*, etc.<sup>13</sup> However, in 1979, a debate that would last four years erupted over whether science fiction was primarily scientific or literary; the debate was in the end tied to a political issue. The focus of the debate was Ye Yonglie's literary creation and Tong Enzheng's view of science fiction. One of Ye's works was labeled pseudo-science, because it did not conform to scientific theories. Earlier, Tong Enzheng had published several articles claiming that science fiction could not be used to popularize concrete scientific knowledge; rather, it could at most popularize a "scientific view of life" (*kexue de renshengguan*). The debate ended in 1983 with the conclusion that science fiction was a kind of "spiritual pollution" (*jingshen wuran*) for the people.<sup>14</sup> With this political judgment, science fiction writing came to a halt; it did not recover until the 1990s.<sup>15</sup>

From the 1990s on, science fiction writers have been given much more freedom. Centered around several magazines,<sup>16</sup> many excellent authors such as Han Song (1963– ), Xing He (1967– ), Wang Jinkang (1948– ), and Liu Cixin (1963– ) have emerged on the literary scene. Freed from tight political limitations or the imposition of national agendas,

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<sup>13</sup> See Xing He and Chen Ning (2008) for a general historical account of science fiction in this period.

<sup>14</sup> See Ibid. for more details. Thomas B. Gold (1984) has a timely account of the "spiritual pollution" issue.

<sup>15</sup> See Xing He and Chen Ning (2008).

<sup>16</sup> Among these journals, Chengdu-based *Kehuan shijie* (Science fiction world) has been the most important till today.

many of the new works are of high quality both in terms of literary imagination and scientific accuracy.

The above brief review of the history of Chinese science fiction reveals the genre's deep entanglement with changes in the sociopolitical environment. Although we may make similar judgments of other literary genres, the case of science fiction is worthy of particular notice. Although perhaps not something we might quickly associate with politics and ideology, science has often demonstrated itself as a good arena for political, academic, cultural, and literary ideologies. Accompanied by technology, which realizes developments of science in physical forms, science can change people's worldview in a substantial way. This has been the case throughout the history of science. What makes Chinese science fiction worthy of special attention is that it emerged out of a cultural context that saw science as something completely foreign, exotic, and modern. For a long time science was portrayed in different ways, ranging from positive, to negative, to neutral, but always from a non-science perspective. At what point did the Chinese look to incorporate it in their own ideologies, to view science as something more than a tool? Why did they make this choice? What were some of the difficulties in doing so, and what do these difficulties suggest about social thought? Examination of the negotiation between the exotic and the native can be inspiring to the study of the relation between science and human society as a whole. In thinking about these questions, I consider the relative silence of science fiction in the 1930s and 1940s as an entry point. Rather than beginning with an examination of the socio-cultural environment, I try to answer the

questions by analyzing the few works that were written during the period—the science fiction stories of Gu Junzheng.

### **III. Gu Junzheng: A Turning Point**

May Fourth intellectuals, of course, employed “science” and “democracy” for the nation building project. The “scientific” discourse soon filtered into the realms of history and education and was most obviously felt in studies of the physical world, i.e. natural sciences. Yet science did not immediately or completely displace other modes of thought. Consider the realm of literature, for instance. Major May Fourth fiction writers promoted science in their essays and speeches, but that scientific discourse or worldview is rarely reflected in their fictional works. Among the few attempts to import science into literature in and after the May Fourth period, Gu Junzheng’s stories are identified as the earliest science fiction that do not “continue the late Qing models” (Lin 1998). Although Gu claimed promoting scientific education was his main purpose in writing stories, his fiction touched on and showed concern for many current social issues.

Gu Junzheng (1902–1980) was born to a poor rice trader’s family in Jiaxing, Zhejiang. Gu was very diligent; although he never received a college education, he learned natural science by himself and eventually became an expert in science education. After graduation from high school in 1918, he discontinued school due to financial reasons. He then became a teacher at a primary school. Later in 1923, he passed the Commercial Press’ (Shangwu yinshuguan) examination, became an editor in its Department of Physics and Chemistry, and edited several magazines such as *Shaonian*

*zazhi* (Youth magazine), *Funü zazhi* (Women's magazine), and *Xuesheng zazhi* (Student magazine). In 1928, he switched to the Kaiming Bookstore (Kaiming shudian). There he edited the magazine *Zhongxuesheng* (Middle school students), some textbooks, and translated many fairy tales and popular science essays, a genre that Gu also indulged in. He remained in Shanghai during its "isolated island" period and, together with Yu Zaixue (Suo Fei) and Liu Zhenhan, edited a self-funded science magazine called *Kexue quwei* (Scientific taste). His essays were frequently published in the pages of this journal. After 1949, he moved from Shanghai to Beijing, where he was appointed vice president of China Youth Press (Zhongguo qingnian chubanshe) when Kaiming Bookstore was merged with it in 1953. He continued to write scientific essays, though fewer in number; he also arranged translations of Russian *kepu* works.

Before the outbreak of the Second Sino-Japanese War in 1937, Gu Junzheng had been writing scientific essays for several years.<sup>17</sup> Yet it was only in the late 1930s and early 1940s that he stepped into the field of science fiction. His exploration in the genre was brief: only four stories, two of them published in *Kexue quwei* (Scientific taste)<sup>18</sup> and two elsewhere. Three of the stories were collected under the title *Dream of Peace* and published in 1940. Considered excellent works by many, these stories are often discussed as samples of science fiction of the war period, mostly because they are among the very

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<sup>17</sup> Chen Wangdao invited Gu Junzheng to write "scientific essays" for the journal *Taibai* in 1934. The new term scientific essay, or *kexue xiaopin*, first appeared as a column title in *Taibai*. Gu's first essay, "Zuotian zai nali" (Where is yesterday), was published in the first issue of the journal in 1934. For further details, see Ye Yonglie 2004.

<sup>18</sup> The magazine was co-edited by Gu Zhenhuan (Junzheng), Yu Zaixue (Suo Fei), and Liu Zhenhan, and published by the Scientific Taste Press (*Kexue quwei she*) in Shanghai. It started in 1939, published six full volumes, and stopped in 1942. For more details about this magazine, see chapter 2.

few works published during that period.<sup>19</sup> In such studies, Gu's stories are often analyzed individually, followed by a general comment about science fiction of this period. A typical comment comes from Lin Jianqun, Fang Xiaoqing, and Xing He:

In 1939, inspired by translated works, Gu Junzheng wrote his first science fiction story, and finished another three stories in one year's time. In 1940,<sup>20</sup> Xu Dishan also published a story in the genre. It seemed that science fiction was to flourish. However, with the war going on and on, science fiction did not, as expected, see new works. The revival of science fiction was aborted. In 1945, the civil war between KMT and CCP followed, so there was no more room for science fiction to develop. The ephemeral flash of science fiction of the late 1930s disappeared in the wars. (Lin et. al. 2008: 265, my translation)

The authors blame the Anti-Japanese War and Civil War for the disappearance of science fiction after the early 1940s. However, when we consider the situation of the 1940s literary field, this exploration does not seem adequate. In fact, literature generally prospered in the 1940s. A simple glimpse at the 1940s literary scene gives us a long list of authors that included, aside from the huge number of "mainstream" writers, important authors such as Eileen Chang, Shen Congwen, Qian Zhongshu (1910–1998), Shi Tuo (1910–1988), and Mu Dan (1918–1977), who worked beyond the mainstream; in the realm of popular literature, Zhang Henshui's (1897– 1967) and Qin Shouou's (1908–1993) romantic novels were read fervently, and significant authors of martial arts fiction

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<sup>19</sup> Another story from this period is Xu Dishan's (1893–1941) "Tieyu de sai" (Gills of iron fish, 1940). For general historical accounts of science fiction of the Republican period, see Lin et. al. 2008 and Wu 1994.

<sup>20</sup> The authors make a mistake here. Xu Dishan's story was published in 1941 in the magazine *Dafeng* (Hard wind), rather than in 1940.

arose in the north.<sup>21</sup> Attributing the disappearance of science fiction in the 1940s to the wars cannot explain why literature, in general, did not die out in this period. One still wonders why did authors abandon it and why did readers no longer want to consume it—why, in other words, was science fiction no longer a literary necessity? What is it in this fiction that went against the literary expectations of the time? There are perhaps no answers to some of these questions at all; but it may be meaningful, at least, to try to consider them from within the genre of science fiction. Gu Junzheng’s writing of science fiction lasted just two years. As such, it offers perhaps the best avenue for these questions.

Another typical view considers the question from the perspective of “modern” knowledge structures. Wu Yan and Fang Xiaoqing (2006: 194–195), for example, attribute the failure of science fiction in the 1920s to 1940s to the “differences” between the author’s and the reader’s “views of science” (*kexueguan chayi*): in their view, the author had a “modern,” Western view of science, while the reader did not have a corresponding “scientific way of thinking or a scientific cultural background,” and thus “found it difficult to accept the completely different knowledge structure and boring formal logic,” and could not enjoy science fiction (194).<sup>22</sup> Taking the Western as the

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<sup>21</sup> For a comprehensive overview of literature of the 1940s, see Qian Liqun, Wen Rumin and Wu Fuhui, 1998: *Zhongguo xiandai wenxue sanshi nian* (Thirty years of modern Chinese literature). Beijing: Beijing daxue.

<sup>22</sup> In Wu and Fang’s study, this difference in “view of science” between the author and the reader is applicable only to the science fiction of the 1930s and 1940s—i.e., the works of Gu Junzheng and Xu Dishan—the only science fiction’s authors known to have written at this time. Science fiction works of the 1910s and 1920s, such as Zhuodai’s “Mimi shi” (Secret room, 1912), Meimeng’s “Yue shijie” (World in the moon, 1918) and Jingfeng’s “Shinian hou de Zhongguo” (China in ten years, 1923), are generally considered to be “highly homogeneous with late Qing science fiction; probably we can say that they are a continuation of the late Qing works” (Lin et al. 2008: 264). Wu and Fang adopt this judgment. To explain the cold welcome that the late Qing and early Republican science fiction (as a whole) encountered, Wu and

equivalent of the modern, this view has several weak points. At least two questions would challenge this argument: first, why should we assume that readers would necessarily be behind writers in terms of their knowledge of science; second, is the science fiction of this time really “Western” and “modern”?

When talking about science fiction of the 1930s and 1940s, most scholars make reference only to the four stories by Gu Junzheng published in 1939 and 1940 and a Xu Dishan story written in 1940. Examining these works will be helpful to answer questions about what kind of science fiction was produced in China then, why science fiction did not become popular, and whether or not there was a cognitive gap between different cultural groups, and so on.

In this thesis, I focus on Gu Junzheng’s works, discussing their view of science and their intended social functions.<sup>23</sup> By drawing attention to issues and contradictions at the textual level, I try to find a way to enter the broader social sphere and reveal some of the deeper entanglements among science fiction, contemporary social issues, and the human condition. I argue that compared with earlier science fiction writers, Gu Junzheng

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Fang cites David Der-wei Wang’s idea, stating that the elites (Lu Xun, Liang Qichao etc.) wished to promote the modern view of science, while science fiction writers were only able to produce “science fiction” with local twists, i.e. a fiction rich of traditions of Buddhism, Daoism, Chinese medicine, etc. So the “differences” in “views of science” in earlier science fiction is identified as a conflict between the ideas of the “cultural elites” and “popular fiction writers.” See Wu and Fang 2005: 193–194.

<sup>23</sup> I do not include Xu Dishan’s “Tieyu de sai” (Gills of the iron fish) because I consider it to be more of a mainstream literary work. Although the story does include a detailed portrait of a serious scientist and description of the working principle of his blueprint of a submarine, the ultimate suggestion of the story is that, because of the current inequity in academia, serious scientific research cannot be conducted in China. It is a harsh criticism of sectarianism and bureaucratism, implying that political and systematic reforms come before scientific breakthroughs. I do not mean to argue that this is not science fiction: there is no doubt that this kind of topic is among the issues that science fiction deals with, but it is also not “hardcore.” In light of Peter Brigg’s (2002) idea of “span fiction,” by which he means a fiction that is between hardcore science fiction and hard core pure literature, and “combines the overwhelming presence of science and technology in our lives with the consideration and critique of that presence in a variety of literary experiments” (191), I suggest that Xu’s story has a different orientation than the science fiction expected in the discussion of “view of science.”

appears to be a “hardcore scientific” author, who seriously contemplates science in the human society; nevertheless, his works are highly related to traditional Confucian thoughts of the country and the individual: a mentality typical of traditional literati that gets inherited and modified by modern intellectuals. The fact that Gu’s fiction has blended old and new elements reminds us of the status of science in its time: a decade after the May Fourth New Culture movement, science was still struggling for a secure position as the “truth” in people’s mind; yet the initial efforts made by Gu to use science fiction as “textbooks” for young students suggested the beginning of science being incorporated into essential social knowledge. As an author of many scientific essays, Gu was well aware of the subversive potential that modern science had to reshuffle the organization of the social realm and radically redefine social norms. Gu’s four stories contemplate these potentials from the perspective of a modern *shi* (Confucian literati), calling for self-cultivation (with both modern patriotic and traditional moral standards) among modern scientists. The view of science in Gu’s science fiction contains both Confucian ideas of the literati’s responsibility to society, and modern reflections on scientific discoveries. It is especially noteworthy that in meditating the two systems of ideas, the logic of the fiction is potentially supportive of the Marxist way of understanding science, suggesting a possible future route of science fiction and scientific essays, or to be more general, literature with scientific elements. I first examine Gu Junzheng’s ideas about writing science fiction, and then read the works in terms of the themes of war and memory, righteousness, the issue of intellectuals, gender, and morality. Through examining Gu’s literary ideas and literary practice, I hope to provide a new



explanation for the lack of science fiction works in the late Republican period.

Chapter 2 examines Gu Junzheng's view of science fiction, expressed in a foreword that he wrote for his story collection and articles in the magazine *Scientific Taste*. Gu insisted on both the scientific accuracy of science fiction and its educational function, which often led in his finished stories to contradictions and ambiguities. Furthermore, he looked to reveal possible solutions to social and historical crises with the emergence of modern science as a powerful transformative force. All these factors made his tentative design for an ideal science fiction difficult to realize. Chapter 3 and Chapter 4 provide close readings of the four stories. Chapter 3 deals with political issues: memory and righteousness in wars, and the topic of intellectuals. Chapter 4 reads the stories from the perspective of gender and morality. These issues reflect Gu's thoughts about the role of science in society and how science requires much adjustment in the social order. Gu tries to give his answers, yet perhaps the significance of his stories lies more in posing the questions. The topics that Gu's stories deal with are broader than that treated by earlier science fiction authors, and he was more familiar with the new scientific knowledge system; but at the same time, his ideas still reflect the mentality of traditional literati. The kind of self-cultivation of intellectuals suggested in Gu's works were expressed more radically in the socialist theory, and the educational purposes that he looked to realize in science fiction were carried on by *kepu* works after 1949. The low tide of science fiction in the 1940s was perhaps caused by a lack of impetus that is unique to science fiction: the willingness to imagine the far future.

## Chapter 2: A New View of Science Fiction

Compared with the non-fiction genre of scientific essay (*kepu wenxue*), which has set modes to follow, science fiction is more flexible in form and style, enabling it to express a writer's ideas about science and society in deeper and various ways. As a writer, Gu Junzheng expressed his ideas first and foremost through his works. But Gu was also editor of a science journal, and in this role he also expressed himself and asserted ideas on science and literature. Although few in number, Gu also wrote essays in which he explicitly set out his views of science in literature. In this chapter, I focus on his literary ideas presented in these essays and through his editorship of the journal *Scientific Taste*.

### I. *Scientific Taste*: The Magazine

Before directly addressing Gu's articles, I would like to first look at where his science fiction, at least some of it, was published. A common misunderstanding is that all four of his science fiction stories were published in *Scientific Taste*, yet the fact is only the later two were published there.<sup>24</sup> Between 1939 and 1942, when *Scientific Taste* was active, Gu Junzheng published his stories and essays in this forum. Of course, this can be seen as

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<sup>24</sup> Most studies available—for example, Lin 1998, Wu 1994 and Ye 2005—state that the four stories were all published in *Scientific Taste*. Even Gu Junzheng himself in his later years recalled that all stories were associated with his magazine (Ye 2005). However, as is mentioned earlier in this chapter, “Lundun qiyi” (Bizarre pestilence in London) and “Xingbian” (Sex change) were published in the magazine *Scientific Taste*, but the other two were not: “Heping de meng” (Dream of Peace) was published in *Zhongxue shenghuo* (Middle school life); “Zai Beiji dixia” (Under the North Pole) was published in *Zhongmei ribao*'s (The China-US Daily) supplement “Xiandai kexue” (Modern science). See “Bianji houji” (Postscript from the editors) of *Scientific Taste*, vol 1, no. 1 (1939).

a way of supporting his own magazine. These works should be read in relation to the magazine's editorial ideas. *Scientific Taste*, to which Gu devoted much effort, can be viewed as a “showcase” of his ideas about popularizing science. Looking at the structure of its first few issues, one finds that the magazine is highly organized: each issue starts with news reports of recent scientific developments, followed by simple explanations of everyday science, science fiction, scientific games and tricks, readers' questions and answers, and finally ending with a summative postscript. Featuring news, introductory essays, and questions and answers sections was not rare for science magazines of the time;<sup>25</sup> the unique character of this magazine was promoting a “tasteful” science, which was generally reflected in all its sections, but specially realized in its fiction section and the scientific games and tricks.

It is worth mentioning that the term *quwei* has traditional resonances tied with an elitist literary discourse. Literally meaning “taste” and “flavor,” the term not only was used to describe one's cultural taste of the literary genres such as poetry and paintings, but also had an implication of judgement: it was believed that only people who were highly educated and possessed literary elegance could relish *quwei*. Although in the May Fourth New Culture movement (1917–1923) traditional high culture was attacked, in the 1930s the reinvention of *quwei* reemerged as a literary and ideological fashion. The modern manipulation of this term was centered around the writer Zhou Zhuoren (1895–1967), who promoted a *quwei* that was different than the traditional one, but still of the

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<sup>25</sup> Wang and Xu (2004) have a brief introduction of major science magazines of the late Qing period; news about science, explanation of everyday knowledge and questions and answers are among the shared features of these magazines.

literati. With other writers and scholars joining in the discussion, *quwei* was affiliated with scholars and writers who deviated from mainstream leftist thinking: *quwei* was an elitist category that the masses could not possess. In her discussion of Zhou Zuoren's interest in the late Ming counter-tradition, Susan Daruvala (2000) cites Craig Clunas' research of late Ming material culture. Following the line of Pierre Bourdieu's statement of "the invention of taste" in early modern Europe, Clunas argues that in Ming China taste was also "an essential legitimator of consumption," and as was constructed by the elites, connoisseurs, in contrast of possessors of luxury, made their judgments "based on a set of morally grounded aesthetic principles" (in Daruvala 2000: 150). Zhou Zuoren, as argued by Daruvala, himself promoted *quwei*; he further developed the concept, adding to it locality as a humanist factor and perception of the intrinsic value of the world as a moral factor (138–152).

Some other modern intellectuals, such as Zhu Guangqian (1897–1986) and Feng Zikai (1898–1975), also featured *quwei* in their literary thought. Feng Zikai published a collection of commentaries in 1934 with the title *Yishu quwei* (Artistic taste). This collection is composed of essays originally written for the column *Meishu jianghua* (Speeches on fine arts) in the magazine *Zhongxuesheng* (Middle school students) and some other articles. In the foreword to this collection, Feng wrote it was "to be used as supplementary reading materials for middle school art classes" (in Chen Zishan 2010). Feng Zikai and Gu Junzheng were both editors of *Middle School Students*, a magazine

published by Kaiming Bookstore in Shanghai, and started in 1930.<sup>26</sup> The similarities between Gu's and Feng's idea of *quwei* are evident; both of them are in accordance with that exhibited in the editorship of *Middle School Student*. In the general introduction of the magazine in its first issue, Xia Mianzun (1886–1946) wrote: the purpose of this magazine is “to provide remedies to the inadequacies of middle school students’ school work; to supply various tastes (*quwei*) and knowledge (*zhishi*); to guide their way to the future; to answer inquiries; to be a convenient forum for publication (for the students)” (in Li Bin 2007: 6). Noticeable is he mentioned multiple “tastes” from various subjects in this introduction. Combined with the stated missions of this magazine, it is easy to see that its manipulation of the term *quwei* has the intention to challenge the old hierarchy in the educated community. While Zhou Zuoren’s promotion of a new *quwei* echoed traditional elitist thinking, Gu Junzheng and his fellow intellectuals were committed to make their newly-defined *quwei* available to more people. However, the popularization of *quwei* that was promoted by Gu was still to be carried out via education (i.e., access to knowledge), and this was different from the leftist, class-based thinking.

Started eight years after *Middle School Students’* first issue, *Scientific Taste* apparently carried on this tradition of the Kaiming Bookstore to cultivate new tastes in a broader audience.<sup>27</sup> It is noteworthy that the taste of science that this magazine hoped to instill in its audience included the ability to appreciate science fiction. As one perhaps

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<sup>26</sup> *Middle School Students* was a major magazine Kaiming Bookstore published, and was among the best known student magazines of the time. It lasted from 1930 to 1949, when it was merged with *Jinbu qingnian* (Progressive youths). Other editors of it were Xia Mianzun, Zhang Xichen (1889–1969), and Ye Shengtao (1894–1988). For a general introduction of this magazine, see Li Bin 2007: 6–7.

<sup>27</sup> The English translation of the title of this magazine, *Scientific Taste*, is original. The word choice helps to clarify the exact meaning of *quwei*, a word that has multiple explanations in Chinese.

might expect, having a fiction section was not unique to *Scientific Taste*,<sup>28</sup> although in other science magazines and journals, science fiction played a less significant role. The employment of literature in the promotion of science has at least two layers of meaning: on the one hand, the promoters of science realized that in order for the scientific discourse to be accepted by the larger community, it first had to be distilled in an already-accepted discourse—literature; on the other, the marriage of science and literature reflected the desire to express one’s will, intentions, or “the Way” (*dao*). This desire had much to do with traditional elite thinking: in China, literature has historically been associated with the lofty pursuits of the literati class. Under the influence of Confucianism, politics was always involved in this pursuit, although it manifested in different ways. Not surprisingly, the introduction of “science” to China also aimed at state and social transformation. In his comment about science magazines of the late Qing period, Wang Hui (2008: 1110) writes: “From beginning to end, the value and significance of science were always defined by its internal connections with society and politics.” The promotion of science was incorporated into China’s nation building project. Although there were science magazines that adopted a purer “scientific” structure based on the modern division of disciplines, such as chemistry, physics, geography, etc.,<sup>29</sup> Gu Junzheng and other editors of *Scientific Taste* chose to express their ideas to a larger

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<sup>28</sup> *Kexue shijie* (Scientific world; February 1903 to November 1904), for example, has a section for “kexue xiaoshuo” (scientific fiction) that at least published translated science fiction. *Kexue yiban* (Glimpse of science; started in 1907) also has science fiction and education fiction in its appendix. See Wang and Xu 2004: 406–407.

<sup>29</sup> A good example of the “purer scientific” magazine is *Kexue* (Science), supported by the China Science Society (*Zhongguo kexue she*). Wang Hui (2008: 1125–1134) discusses how its seemingly pure academic content was associated with social issues: the young scholars of the China Science Society believed “science communities, scientific research, scientific discourse, and scientists’ life style could function as examples to society in a way that is [seemingly] unrelated to the society” (1126; my translation).

audience and in a more “popular” way.

According to Zhao Jingshen (1985), *Scientific Taste*’s publisher Li Zunquan underwrote part of the publishing cost, and the remainder was paid for by Gu Junzheng and Suo Fei, two of its editors. Gu and Suo ran the entire operation from their homes, from editorial work to mailing out issues. The contributors of the magazine were mostly Gu Junzheng’s friends, and none of them were professional writers. *Scientific Taste* can be considered a “coterie” (*tongren zazhi*) magazine: it was noncommercial, nonprofessional, and its goal of “making the life scientized; making science tasteful” exhibits a will to disseminate knowledge to those unfamiliar with scientific developments.<sup>30</sup> In the *Fakan ci* (Introduction to the new magazine, hereafter the “Introduction”) in the initial issue of *Scientific Taste*, the editors claim:

But to “catch up in science” is not an easy task. The development of science is mostly recorded in the reports of academic institutions and professional journals. We, the common people, not only have no access to those things, but also do not have enough knowledge to understand them. In popular magazines and newspapers . . . it is not easy to find reports of progress in science. On the one hand, this is because of lack of the mediators between (scientists and common people) who can distill profound and arcane theories into forms that are easier for common people to accept; on the other hand, this is because a scientist is unlike an artist or a politician: it is not necessary for him to report his result in works to the public. For all these reasons, we wanted to launch this magazine. Our slogan is: making life scientized; making science tasteful (*shenghuo kexuehua, kexue quweihua*).

In this short introduction, Gu and his fellow editors determine that scientists do not need

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<sup>30</sup> The journal stopped publishing after six full volumes, six issues in each volume, in 1942. In the last issue, the editors explain that because of the rapidly rising commodity prices, they lacked the funds to cover the cost of printing the magazine.

to “report” to the public and that they decide they will do it, speaking for the scientist in a popular language, serving as a kind of “agent” between scientists and the common people. In his 1956 essay “Wo shi zenyang chuanguo *Bupa nifeng de*” (How I wrote *Not Afraid of Sailing against the Wind*),<sup>31</sup> Gu again emphasizes that he is “not a scientist, but an editor” (207, 208) and as such is not familiar with the latest scientific discoveries; his role consists only of assisting in the spread of science. Whether in his role as an editor or an author, Gu’s attitude of being an “agent” is consistent from the time when he was editing *Scientific Taste* in the 1930s to after the founding of the PRC.

Then we can ask the following questions: what kind of science does the agent represent? From what perspective does the agent look at science? Does he take the perspective of a scientist, a science teacher, a science lover, a common reader, or someone else? The standpoint that Gu takes, directly determines the nature of his science fiction: the definition of and attitude to science will differ according to different perspectives one takes, and thus will affect the relationship of science to human society in the texts.

## **II. Science Education and A Grounded Fiction**

=Gu Junzheng was well aware of his identity as an editor. And this identity was closely related with science—in the several magazines that he edited, *Middle School Students* for instance, he was solely responsible for their natural science sections. He also edited and

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<sup>31</sup> In Gu 1963: 207–222.



translated textbooks and non-fiction popular science books.<sup>32</sup> In this role as an editor, he served as an intermediary between scientists and common readers (especially middle school students). Thus it was essential to pass on information rather than make renovations, and to keep up with the contemporary developments of science, rather than lag behind or transcend it. As a writer he accepted influences from Western science fiction, fairytales, scientific reading materials, and traditional Chinese literature, mainly history. His literary interests were diverse, and his works full of conflicts. In comparison with the various voices manifested in Gu's works, earlier works of Chinese science fiction are simpler and less complex, though they share a view of the pedagogical role of science fiction. .

From its beginning in the late Qing, Chinese science fiction sought to popularize science and enlighten people. In his introductory article to the magazine *Xin xiaoshuo* (New fiction), “Zhongguo weiyi zhi wenxue bao *Xin xiaoshuo*” (The only literary newspaper [magazine] in China—*New Fiction*; 1902), Liang Qichao (1873–1929) introduced a genre that would appear in the magazine, *zheli kexue xiaoshuo* (philosophical scientific fiction), in this way: it “exclusively borrows fiction to explain philosophy and science (*gezhi xue*), its materials all deriving from translated works” (in Yang 2006: 4).<sup>33</sup> Many writers, translators, and critics of the time, such as Lu Xun, Bao

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<sup>32</sup> For example, *Huaxue qitan* (Amazing talks of chemistry) was translated by Gu from a work of Jean Henry Fabre, most likely to be *Chimie agricole* (1862). Gu's translation was published by Kaiming Bookstore in 1932.

<sup>33</sup> This article was originally published in *Xinmin congbao* 1902, no. 14. Within two to three years of the starting of *New Fiction*, Chinese readers of science fiction had no choice but to read translated works of this genre, since there was no indigenous writer who wrote them. As is mentioned in the last chapter, it was until 1904 when Huangjiang Diaosou published *The Moon Colony*, commonly seen as the first Chinese work of science fiction.

Tianxiao (1876–1973), Sun Baoxuan (1874–1924), and Lü Simian (1884–1957), expressed a similar opinion: science fiction is the best way to enlighten people with scientific knowledge (Yang 2006: 4). It is fair to say that Chinese science fiction began with a strong sense of educational purpose.

Yet as David Wang (1997: 51; 295–301) points out, the scientific vision provided in late Qing science fiction is a hybrid mix of western science and technology, residual indigenous superstition, utopian desires, and realistic anxieties. Given the educational background of late Qing writers, most of whom did not receive a systematic education in modern science, it is to be expected that they create the kind of “science fiction” that Wang describes. By tracing the prototypes of much of the scientific and technological vocabulary in early Chinese science fiction, Chen Pingyuan (2006) identifies four main sources of scientific and technological knowledge of both the authors and the readers of this fiction: travel journals of Chinese diplomats and merchants, news and science magazines run by missionaries, tabloids and pictorials, and re-explanation of legends. None of the known late Qing science fiction writers had any particular interest in or deep knowledge of science—science fiction was just one among many genres of popular fiction that they wrote. Thus, there was a gap between the kind of science fiction desired by its promoters (cultural elites) and the actual works. This situation changed with Gu Junzheng, both because of the congruity between his educational and personal interests and the fiction that he wrote, and because of his editorship: as an editor and a writer, he served both as a promoter and a practitioner of science fiction.

In the foreword (hereafter the “Foreword”) to his *Heping de meng* (Dream of

peace, 1940), Gu writes that the three collected stories resulted from his attempt to “utilize... fiction... to aid in science education” (1940*a*: iv). He explains that he got the idea that science fiction can have a great impact on people’s cognition about the world from a 1938 news report about the panic caused by the radio broadcast of an adaptation of H. G. Wells’ novel *War of the Worlds*.<sup>34</sup> Gu saw in this report a great potential educational (and propagandist) function for science fiction and was encouraged to begin writing his own stories. The fact that people mistook the fictional for the real deeply impressed him. In “the Foreword,” Gu confesses that he was not confident that he could produce good science fiction according to his own criteria, but that he merely wished to write something at least “worth writing”—in the sense of being useful for society.

Gu’s dual identity as editor and writer of science-related materials deeply influenced his writing style. The flow of his narration, for example, is sometimes interrupted by scientific explanations. In some cases, the narrator in his stories introduces scientific principles and explanations that are well beyond the particular narrative needs of the plots.<sup>35</sup> More interestingly, in addition to the titles of the stories in the collection, *Dream of Peace*’s table of contents gives detailed information on each story; but rather than introducing the story’s main episodes, it lists the scientific theories related in the story, making the table of contents look very unlike what one would normally find in a

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<sup>34</sup> On Oct 30, 1938, *The Mercury Theater on the Air* broadcasted a radio play, an adoption of H. G. Wells’ *The War of the Worlds* in their Halloween program. Many people all over the United States took the war as real, and fled to the countryside. See Gunn 1988: xiv.

<sup>35</sup> For example, in “Dream of Peace,” a retrospective narration of the hero’s past experience, which has little to do with the plot, takes up fifteen percent of the entire story. Its purpose is apparently to introduce the principle of hypnotism. See Gu 1940*a*: 16–22. Nineteen percent of the story is devoted to introducing of the working principle of a loop-antenna, with six pictures to assist in the instruction, which is more relevant to the plot because the hero uses loop-antenna to track radio signals from the enemy. See Gu 1940*a*: 24–32.

regular collection of stories.<sup>36</sup> Under the title “Dream of Peace,” for example, the table of contents highlights “the principle of hypnotism—the experiment of hypnotism—the function of hypnotism—the characteristics of radio signals—methods to locate radio signals.” It is the same with the other two stories in the collection. The author seems to have decided that the collection should serve as a textbook of scientific theories, and its table of content as a kind of index for scientific information.

Furthermore, when “Lundun qiyi” (Bizarre Pestilence in London) was first published in *Scientific Taste* in 1939, Gu even added several “research questions” to the end of the story for readers to think about. These questions were: “(1) what is catalyst? (2) What kind of chemical change will happen when sodium bicarbonate reacts with nitrate? (3) In modern industry, how is nitrate produced? (4) What are the functions of chlorophyll in plants? (5) What are some characteristics of nitrate? (6) This is a story, so it has imaginary elements, which do not meet scientific standards. Can you point them out?”<sup>37</sup>

These kinds of questions, at least the first five, are very similar to those one would find in a chemistry textbook. To a reader of fiction, however, it is a little surprising to find such questions appended to a story, whose complex plot involves national confrontations, espionage, love, and perhaps a degree of criticism of the bureaucratic academic system. But in the context of the magazine *Scientific Taste* and its pedagogical mandate to propagate scientific knowledge, they make sense: to let readers learn more about

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<sup>36</sup> Whereas much “new fiction” (compared with *zhanghui* novels) does not have chapter titles, in tables of content for them, the main plots are usually highlighted. This kind of tables of content provides the most basic information about the stories, and normally does not have page numbers.

<sup>37</sup> *Scientific Taste*, vol. 1, no. 3, p. 126.

chemistry and engineering. All the essays, communications, and notes in the magazine, irrespective of whether they are more or less literary, serve the same purpose. If the reader is familiar with the style of the magazine, he/she may accept it as a way to learn. The sixth question, however, reveals a basic dilemma in science fiction writing for Gu. I treat this question below.

Given that Gu's science fiction is designed to serve as a kind of "textbook," accuracy in its conveyance of scientific information is critical. The "Foreword" continues with a critique of ungrounded science fiction: in Gu's eyes, most of the works in major contemporary Western science fiction magazines,<sup>38</sup> including Wells' *The Invisible Man*, contain "too many fantastic and too few scientific elements" (iii), and thus can only be read as one would fantasy novels like *Xiyou ji* (Journey to the West) or *Fengshen yanyi* (Investiture of the Gods). Gu's comments represent a critique both of Western science fiction and of traditional Chinese fantasies (*zhiguai* [recording the bizarre] fiction and *shenmo* [gods and demons] fiction). Although Gu might not have been aware of the differences between the genres of science fiction and fantasy, his comment shows his literary preference: only fiction that is factually accurate can serve educational purposes; only literature that serves educational purposes is good literature. In evaluating others' works,<sup>39</sup> he looked primarily for exactness and rationality. His own literary ideal is demonstrated in his science fiction, which will be examined in the following chapters.

Among all Chinese science fiction authors, Gu is the first to have an interest in

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<sup>38</sup> *Amazing Stories*, *Thrilling Wonder Stories*, *Marvels—Science Stories*, *Science Fiction* and *Dynamic Science Stories* are listed here as examples.

<sup>39</sup> But when it comes to his own fictional practice, Gu cannot restrain himself from being emotional, allegoric, and imaginative, as I discuss below.

pure science, and to read Western science fiction in the hope to learn from it. Although Gu never explicitly expressed from whose works he learned most about the genre, H. G. Wells was among his models. In his “Foreword,” he mentions Wells three times, marveling at his ability to “foresee” the future, to influence people’s mind, and feeling sorry for the occasional scientific inaccuracy in his works. H. G. Wells is often called “the prophet” of Western science fiction; and his contributions to the development of the genre are considered manifold. His novel *The Time Machine* (1895) is commonly regarded as the first great story about time travel; John J. Pierce (1987: 85) even argues that it is the first great work about time. In Pierce’s study, Wells’ greatest contributions to the genre are the new cosmological sense of time revealed by modern science; his doubt about the existence of God and embrace of the Darwinist view of evolution; his infatuation with imagining and portraying the future based on his understandings of social rules, etc. (Pierce 1987: 85–105). Others consider his greatest contribution to be in narration and genre (Roberts 2006: 145). As is shown in these studies, Wells was quite prolific and had multiple pursuits in science fiction. Gu Junzheng’s comments on Wells’ works reflect his own views of Chinese current affairs. Obviously, Gu refers to Wells primarily to make an evaluation of the possibilities for and defects in Chinese science fiction.

The other object of Gu’s critique is earlier Chinese science fiction, which has more elements of traditional fantasies. It is reasonable for him to find “deficiencies” in those works: Gu was educated in a different system from that of his late Qing predecessors. Gu was a student of Western science. Having been a middle school

chemistry teacher, an editor of scientific journals, and an author of textbooks for the young, Gu was well trained in at least middle school level scientific theories,<sup>40</sup> this kind of scientific knowledge was rarely seen among his predecessors.

Moreover, there were no professional science fiction writers from the late Qing to the early Republican period. Each of the most famous “science fiction writers” of this period only wrote a single work or two of science fiction: Wu Jianren, author of the science fiction novel *Xin shitou ji* (New Story of The Stone), was mostly known for his popular fiction in other genres; Bao Tianxiao, author of *Shijie mori ji* (The End of the World), was also a famous popular fiction writer and newspaper man; finally, Liang Qichao, author of *Xin Zhongguo weilai ji* (Future of New China), was best known as a political and social reformer. Given the educational backgrounds and social occupations of late Qing writers,<sup>41</sup> they were not qualified or inclined to produce a purely “scientific” science fiction along the lines of Gu Junzheng’s criteria. Looked at from another perspective, in the late Qing and early Republic, “science fiction” had not yet been fixed as a literary genre with a well-accepted definition.

Lu Xun, a figure who straddles the late Qing and the early Republican periods, had an educational background in science and technology and was involved in the translation and promotion of science fiction. Sometimes referred to as the first Chinese

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<sup>40</sup> Gu only finished middle school, and never went to college. But he was a fervent lover of natural science, so he studied the most essential theories on his own. From the topics covered in the huge corpus of his scientific essays, one can get a sense of the breadths of his knowledge. For a short biography of Gu Junzheng, see Tang Xiguang 1988. Zhou Haiying 2002: 149–152 has a brief mention of Gu Junzheng’s everyday life, too.

<sup>41</sup> A strong interest to natural science drove Gu to study sciences by himself. It is apparently not the case with late Qing writers, neither was it with major May Fourth writers. For a detailed discussion on the knowledge structure of the two generations, see Chen Pingyuan 1988: ch. 1.

writer to comment on science fiction, Lu Xun had great interest in the genre and translated two works by Jules Verne.<sup>42</sup> Other May Fourth writers, such as Bing Xin (1900–1999) and Mao Dun (1896–1981), also translated science fiction. However, none of the major May Fourth writers, was to write science fiction themselves.<sup>43</sup> After 1919, science fiction seemed to encounter a hiatus.<sup>44</sup> Even with his meager output of only four science fiction stories, Gu Junzheng was the most productive science fiction writer of the 1930s and 1940s.

### III. Scientific Accuracy versus Historical Predictability

Gu claimed that his main purpose in writing science fiction was to facilitate science education. But that aim was only part of his literary objectives: he also had an ambition to reveal in his fiction the laws of history and thus to predict what would happen in real life under certain social conditions. Although he does not say so explicitly, this ambition was well reflected in the “Foreword,” where he discusses H. G. Wells’ *The Shape of Things to*

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<sup>42</sup> Lu Xun translated Jules Verne’s *From the Earth to the Moon* (Yue jie lüxing, 1866. Translation published in 1903) and *Journey to the Center of the Earth* (Di di lüxing, 1864. Translation published in 1906) from Japanese. His foreword to the former (“Yue jie lüxing bianyan,” 1903) is seen as the first theoretical critique of science fiction (Lin 1998). In this essay, Lu Xun emphasizes science fiction as a better vehicle than textbooks for popularizing scientific theories and civilization, not paying much attention to its features as a literary genre. See Lu Xun 1903.

<sup>43</sup> Bing Xin’s translation *Flying Man* (Fei ren, 1915); Mao Dun translated and adapted *An Egg Hatched 300 Years Later* (Sanbai nian hou fuhua zhi luan, 1917) and *The South Pole in the Twentieth Century* (Ershi shiji hou zhi Nanji, 1918).

<sup>44</sup> Nonetheless, a few works were produced during this period. According to a comprehensive catalogue prepared by Lin Jianqun and Li Guangyi, besides translations and Shen Congwen’s, Lao She’s and Zhang Tianyi’s satirical fiction, at least Jia Zuzhang, Gao Shiqi and Dong Chuncai produced science fictional works written between 1919 and 1937. Most of their works listed in the catalogue, however, are not science fiction, at least using strict criteria. They are closer to popular science essays, i.e. what I refer as “scientific essays” in this paper. The catalogue is an integration of the lists collected by Zhang Zhi, Wu Xianya, Takeda Masaya, and Helena Heroldova. URL: <http://www.pkusf.net/readart.php?class=khb&an=20060721232113> (last accessed on April 1, 2010)



*Come* (1933) as “historical prediction.”<sup>45</sup> According to Gu, Wells could “exactly” foresee the future “like a god” because his imagination was based on scientific knowledge.

Perhaps the “Introduction” to and the first essay in the inaugural issue of *Scientific Taste* can give us a hint as to how Gu saw the prediction of history. In the “Introduction,” Gu presented a comparison between the development of social history and the development of science: “Because the progress of science is different from most other human activities. Haven’t you heard from a sociologist that ‘history proceeds in a circular way’? But science proceeds in a linear way. It is forever moving forward, forever moving forward into unknown fields.”<sup>46</sup> In addition to differentiating social history and the development of science, the article also claims that “Science governs everything. Human activities, from the everyday issues such as dressing, eating, residing, and commuting, to thinking and warfare, none of them are not related to science.” So in the end, *Scientific Taste* looks to renew people’s understanding of history through a greater awareness of science—a history whose very development has been changed by the new and basic element: the power of science. Qiao Feng’s essay “Jinren bi guren changshou” (Today’s people are more long-lived than people of the past) further attests to this linear view of history: listing biophysical and anthropological evidence, Qiao argued against the view that people in ancient times were more advanced in every aspect than today’s people. By criticizing the old modes of understanding history and promoting new views, the author drew the reader’s attention to science and technology, which were recognized

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<sup>45</sup> In *The Shape of Things to come* (1933) Wells provided an imagination of future events from 1933 until the year 2106, which included a prediction of the war between Japan and China.

<sup>46</sup> In *Scientific Taste* vol. 1 Issue 1, published in June 1939.

as the main driving forces for human progress. With science and technology having more and more influence on people's lives today, it is thus possible to predict what will happen according to people's knowledge of science.

This desire to “predict” can also be found in many of Gu's scientific essays. A typical example is “Sheying de gushi” (The story of photography, 1936), which gives an account of the history of photography, its working principles, and its four inventors/contributors. Gu does not forget to add an interesting story to his conventional account of historical facts: in 1760, long before photography was invented, the Frenchman Tiphaigne de la Roche wrote a book with the title *Giphantie*. In this novel, the hero enters a room full of pictures that look exactly like the real thing they depict. The guide explains that on the surface of the canvases there is a kind of fine and sticky material, which stiffens very quickly when it comes in contact with air. Using this material, it is easy to get an “image,” and after putting it in darkness, a permanent picture is formed. Gu marvels at this “astounding and accurate prediction”: “even to this day, this prediction still remains accurate. So it turns out that photography, this ‘maid of science’ and ‘angel of pictorial records of the world’ was once a dream of a novelist” (Gu 1981: 38).

Apparently Gu was impressed by this successful prediction of a future technology. In his own stories, he tried to do similar things, though his is a more ambitious project: to predict future international relations and social orders. He wished to predict the future of China's biggest current issues—for example, war with Japan—rather than merely imagine the invention of some new technologies. Yet there is a deep contradiction

between using accurate current scientific knowledge and bold imagination to postulate what could happen in the future: scientific exactness unavoidably restricts the heights that the imagination can reach. In the example above, back in the year 1760, the prediction offered in *Giphantie* could not have been based on actual scientific discoveries—the discoveries that would lead to the invention were yet to come. It requires a highly imaginative mind, which can transcend the limits of current scientific knowledge, to conceive of and develop the idea in fiction.

Looking at Gu's writings in chronological order, readers' critiques undoubtedly caused him to think about the relationship between science and fictional writing. As mentioned above, after the main text of "Bizarre Pestilence in London," Gu added several questions for the readers to review what they were expected to have learned from the story. One of these questions suggests that the literary form of the story limited its scientific accuracy—"This is a story, so it has imaginary elements, which do not meet scientific standards. Can you point them out?" Gu's remarks here lead to another question: if the literary form inherently involves something that does not "meet scientific standards," why bother to write science fiction? Why not simply provide readers with a textbook?

Feedback from readers also touched on this dilemma. According to Gu, some readers "misunderstood" the question. In their letters to the magazine, they were suspicious that the stories were full of wrong and "poisonous" information, and suggested that the magazine stop publishing similar stories (Gu 1940a: vi). To avoid similar "misunderstandings," when his three stories were republished in the collection *Dream of*

*Peace*, Gu removed the questions and added some explanations. At that time, he must have thought about the tension between scientific accuracy and the fictional imagination. For example, by the time Gu was writing “Under the North Pole,” scientists had already proved that the north and south magnetic poles were not formed by magnetic iron ore, but he still adopts the hypothesis in his story. He adds a footnote explaining that “what I write here [that there are magnetic iron ores in the North Pole] is only [for the convenience of] this story’s structure; I do not mean that there really are magnetic iron ores in the North Pole and the South Pole” (1940*d*: 125). Later in the “Foreword,” he further explains that “although its main structure has been proved wrong by modern science, this story has its historical value, because before the successful explorations of the North Pole and the South Pole, scientists did believe the magnetic iron ore hypothesis” (1940*a*: vi).

These explanations put the author into an awkward position: simply put, why use fiction to convey scientific ideas if it cannot do it in an accurate way? Apparently Gu himself did not have a clear answer to this question; after confirming that science fiction as a literary genre was worth exploring, he admitted that it was a hard task: “To ensure that the fantastic elements of science fiction not be misunderstood is really a particularly significant question. I hope our colleagues who love science will work on this together!” (1940*a*: vii). No doubt, the intrinsic dilemma of the goals that Gu invested in science fiction added to the inherent complexity of the genre.

#### IV. Conclusion

Among his forebears and contemporaries in Chinese science fiction writing, Gu Junzheng made the first step to popularize science via science fiction. Although using fiction to fulfill educational missions was not Gu's invention, his ideas had obviously differed from those of his predecessors. Earlier science fiction writers generally introduced new technologies and scientific theories in a rather obscure fashion.<sup>47</sup> Heroldova (2004) and Chen Pingyuan (2005) point out that their main contribution was in creating a scientific and technical vocabulary, or a list of scientific keywords. Gu Junzheng did not want to merely build a scientific vocabulary for his readers; he wanted to instill usable scientific principles in his readers. By calling for a fiction that can "help popularizing science education," to a large extent Gu wished to produce science textbooks in the form of literature. However, in many cases, scientific accuracy and literary imagination were poorly suited to each other: literature often looks to reveal intangible feelings rather than the appearance of things, while the first task of science is to explain physical phenomenon. This intrinsic contradiction in the kind of fiction that Gu wanted made his literary ideal impossible to fulfill. This dilemma perhaps partly explains why Gu Junzheng-style science fiction was not carried on by others.

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<sup>47</sup> Although most of the earlier works were rather "unprofessional" in terms of the scientific elements, before Gu Junzheng's stories, there were some writers committed to introducing scientific principles in a serious way. Zhi Ming's "Sheng sheng dai" (The bag of lives), published in *Xiuxiang xiaoshuo* in 1905, is an example. Written in a quasi-*zhanghui* form, the story introduces the human physiological structure, which challenges traditional Chinese medical ideas. The author describes the story as "science-in-fiction," showing a genre consciousness to some extent. Nevertheless, Gu Junzheng's works are different from "The Bag of Lives." The latter is more like a pure vehicle of knowledge of biological science known of the time, while Gu's works involve literary imagination, and are more complex in the issues touched on. Whereas Zhi Ming's is a story with science in it, Gu's stories combine science and fantasies. Analysis of Gu's stories in the following chapters will try to reveal some of these layers of complexity.

Furthermore, Gu wanted science fiction to serve multiple purposes: imparting knowledge, foreseeing future social trends, providing moral admonishment, and at the same time offering a rich reading pleasure that would attract readers. Above all, the reason he calls for promoting science education was a patriotic one: to save China, rather than to promote science itself. This attitude can be found among many of his contemporary intellectuals. It is not a purely modern attitude; rather, it carries much of the traditional notion of the importance of serving the state. It also coincides with the Confucian order of self-cultivation in *Daxue* (The great learning): “investigate things and then extend knowledge; be sincere and then rectify the heart; cultivate the person and then regulate the family; govern the state and then all those under heaven will be at peace” (*gewu, zhizhi, chengyi, zhengxin, xiushen, qijia, zhiguo, ping tianxia*). Learning science is similar to the investigation of things; it is the first step of learning.<sup>48</sup> In promoting it, the final goal is to protect the state and put the world at peace. Because of this ultimate goal, it is necessary for science fiction to have the power to predict future social trends and regulate people’s behavior through self-cultivation.

For science fiction, the multiple goals are perhaps too ambitious to realize. Rather, it is easier for these goals to be realized in a combination of pure literature (traditional or modern) and an independent *kepu* literature, which was the basis of Chinese scientific literature of the 1950s and after. In the following chapter, I argue that Gu presented his prediction of the ongoing war between China and Japan, defined the concept of

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<sup>48</sup> Wang Hui (1997) first made this point. In this famous essay he discusses how late Qing intellectuals adopted the concept “science” and translated it into the term *kexue*, infusing the concept with strong overtones from *gezhi xue* (learning through the investigation of things).

righteousness, and also called for intellectuals to regulate themselves according to the code of conduct suggested in his fiction. The pursuit of such lofty targets made his fiction serious, which both differentiated it from previous science fiction and made it hard for Gu and other authors to surpass.

### Chapter 3: Understanding the Principles: Politics of History

Studies on the science fiction works of Gu Junzheng often raise two similar points: his pursuit of scientific accuracy in science fiction, and his view to use science fiction as an educational tool. These studies always cite his foreword to *Dream of Peace*. It is perhaps his only essay that explicitly develops ideas on science fiction. Whereas in this essay, which is critical for studying his science fiction, Gu emphasizes his aim to “popularize science education” in writing stories, his fictional practice is equally guided by a pursuit of good literature. In this contrast we can find what is perhaps the central issue in science fiction: the tension between fictional and scientific discourses. As an author who had little experience writing fiction, Gu faced one of the toughest issues in the genre: the conflict between fictional imagination and the accurate representation of scientific theories. His attempt to invest the stories with a quest to divulge the laws of history made the problem even more acute. Among scientific exactness, literary maturity, and social function, late Qing writers of science fiction voluntarily (or perhaps involuntarily) downplayed the first. But Gu Junzheng sought to place equal emphasis on all three, an ambition that resulted in complex stories with multiple voices.

In reading Gu’s stories, his willingness to make science fiction serve an enlightening mission can be easily felt. The emphasis on political righteousness marks a most significant facet of Gu’s science fiction. In this chapter, I discuss the politics in Gu’s scientific works. “Politics” here is used in a broad sense to include national affairs,



ideologies, the relationship among intellectuals, the people (of other classes), and the nation, etc. As mentioned earlier, Gu wrote four science fiction stories, all in the late 1930s and early 1940s: “Dream of Peace” (Heping de meng, 1939); “Bizarre Pestilence in London” (Lundun qi yi, 1939); “Under the North Pole” (Zai Beiji dixia, 1939); and “Sex Change” (Xing bian, 1940). I discuss all four here from a “political” perspective, including Gu’s thoughts about wars between nations and the righteous, historical predictability of science fiction, and the relationships between intellectuals, other classes and the society.

An important point that I would like to raise is the relation between rationality and emotions. In “Dream of Peace” and “Bizarre Pestilence in London,” an avenging mood sometimes overtakes the objective narration. This raises a critical question: if the irrational takes control of the narrative, how can literature reveal historical trends? The question can be considered from two different perspectives: first, mainstream/left-wing literature could have influenced Gu’s literary creation, weakening its scientific neutrality; second, social issues are not completely foreseeable in the way experimental results might be. The human mind and emotions make the direction of history somehow unpredictable. The inclusion of popular attitudes among common people, though probably not just, makes the story closer to reality. Both perspectives are reasonable in some way, and it is up to the reader to decide how to read the story.

## **I. War: Memory and Prediction**

War is the most violent form of national conflict. By the time Gu wrote his stories, for a century China had been under the shadow of war: wars with imperialist powers, internal rebellions, and civil wars. For people who lived during this time, war was a way of life, at once part of their memories and something experienced in the present, both of the past and of the foreseeable future. People can become numb to the continuing stimulation of war, but this does not mean they are not aware of what is going on—especially when the situation has an immediate bearing on their everyday lives.

The First Sino–Japanese War (1894–1895) had a great impact on every aspect of Chinese society—literature was no exception. The same can be said for the Second Sino–Japanese War (1937–1945). If in the late nineteenth century, intellectuals were focused on calling for a unified national consciousness (Hunt 1993), then in the 1930s the focus shifted to how to respond to the increasingly severe national crisis. A dominant literary trend in the post–1937 period was “national defense literature” (*guofang wenxue*), which was driven by the strong political purpose of resistance to Japanese imperialism. In his summary of how the concept was brought to China and promoted by the leftist intellectuals, Wang-chi Wong (1991: 183–195) writes that the concept was promoted by Zhou Yang (1908–1989) and his followers such as Zhou Libo (1908–1979). Lu Xun and Hu Feng (1902–1985) formed a counter-campaign, promoting “people’s literature of the national revolutionary war” (*minzu geming zhanzheng de dazhong wenxue*) in order to set literature in a class-based politics. The debate itself was fueled by personal animosities,

but although there was this dispute within the leftist camp, the idea of using literature to serve the purpose of national defense was shared by both sides.

Whereas nonpolitical literature also continued to be produced, the impact of the war on literature was enormous in terms of rallying writers and intellectuals around the resistance cause. As a student of the May Fourth, a progressive educator, and an editor who worked for the Commercial Press (Shangwu yinshuguan) and for Kaiming Bookstore, Gu Junzheng would have been hard pressed to avoid the idea of writing for the nation. While this idea was generated in part by the war and the threat to the nation, it was also a continuation of the Confucian ideal of literati taking responsibility for the state. I elaborate on this point later.

There were multiple ways to write for the nation: one could lean toward a certain political mode or ideology; or, one could consider certain social sectors—for example, peasants or workers—to be more important to the destiny of the nation than others. The latter was the popular leftist way of writing, which emphasized the struggle of particular classes. Gu Junzheng did not focus on class, but rather on something more social and moral that had close relation with science. To Gu Junzheng, science possessed a vital power to transform the world and to change the current social order in an essential way: used by the righteous (this condition, which I discuss later, is very important to Gu), science and technology could determine the outcome of national conflicts.

This idea is already present in Gu Junzheng's first fictional work, "Dream of Peace." The plot of the story is simple: The United States (hereafter the US) and "the Easternmost Nation" (Jidong guo, hereafter the EN, a name that suggests Japan) are at

war; the latter covets US territory. With its strong military power, the US is in an advantageous position, but according to some secret information, the EN developed a new technology that could be very dangerous to the US. Xia'en Malin, a US military spy, was sent to the EN to gather military intelligence about this secret technology. After three months in the EN, Malin learned who developed the weapon and that the date the weapon would be used was drawing near, though he did not discover exactly what kind of weapon it was. As the story begins, Malin has just returned to Washington D. C. to remind his boss, the Secretary of State, to be extra wary of the Japanese. However, soon Malin notices that the US people, including his boss, now support the EN. Everyone calls for the government to approve the EN's territorial demand. Everyone believes that the EN sincerely wants peace between the two nations. Because of his insistence on fighting the EN, Malin is dismissed by his boss. Later he finds out that a hypnotic national radio program run by the enemy has been instilling the idea of "peace" into people's mind. Malin manages to discover the location of the broadcasting station, confronts its operator—Dr. Ligu'er, the inventor of hypnosis—and forces him to broadcast a new program warning US people of the potential danger of "peace." Malin thus saves the day. The story ends here without mentioning whether the US goes to war with the EN; but judging from the narrative details, it most likely does.

The story is clearly an allegory motivated by the political immediacy of China's situation in the late 1930s. It is not hard to read the story as a diatribe against Wang Jingwei's (1883–1944) conciliatory attitude toward Japan. In 1938 and 1939, Wang frequently talked about "peace"; in Gu's view, Wang's rhetoric of peace sought to

hypnotize the Chinese people into a state of numbness in which they could no longer see the real threat posed to the Chinese forces. The story suggests that those who promoted “peace” were creating a “dream,” but a dream that would be shattered sometime in the future.

“Bizarre Pestilence in London” also relates to current affairs in China. The plot is more complex than that of “Dream of Peace.” The setting of this story is London. Germany has territorial ambitions in Britain, and the two nations are in a state of confrontation. The story begins with a description of a bizarre pestilence that has spread through London: the skin and muscle of the infected decomposes; they lose their sight; and their lungs are damaged. At the same time, buildings in London begin to collapse. The story is told in third person narrative with a focus on the hero, Yin’gelang, a young American scientist on vacation in Britain. Yin’gelang is staying with Sir Qiaofulou and his daughter Mengna. The three of them attend a meeting of scientists and medical specialists who are trying to figure out the cause of the pestilence. At the meeting, they are introduced to a famous German pathologist, Dr. Sitanqi’er, who claims to have come to Britain because of political persecution by the German government. After several encounters with Dr. Sitanqi’er, Yin’gelang becomes suspicious of him. Yin’gelang believes the pestilence was caused by some kind of acid. After breaking into Dr. Sitanqi’er’s house, Yin’gelang and Mengna find that the pathologist and his assistant have a whole set of equipment to produce nitric acid, which when released into London’s air caused the bizarre pestilence. Sitanqi’er, in turns out, was sent to London by the

Berlin secret police as a spy. After a direct confrontation, Yin'gelang vanquishes Dr. Sitanqi'er. The villain is killed by his own equipment; London is saved.

One of the most noticeable points in this story is its “real” setting: Britain during the war against Germany. Contemporary critics objected to the fact that Gu used foreign countries and characters in his stories.<sup>49</sup> Lin Jianqun (1998), for example, writes:

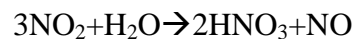
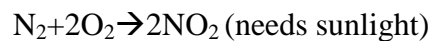
Gu Junzheng was inspired by Western science fiction, and then he began to create his own science fiction. Therefore, his works had the obvious mark of imitation, with a strong Westernized color. In his first three works, “Dream of Peace,” “Bizarre Pestilence in London,” and “Under the North Pole,” from characters to backgrounds, all people’s names and place names are foreign. Reading these works is no different than reading translated stories.

But the stories are not simply foreign. One easily associates “Bizarre Pestilence in London” with World War II, which had just started in Europe when Gu’s story was published. However, the story also resonates with the war that was going on in China. In an allegorical mode, Gu called attention to the Sino-Japanese conflict: the pestilence—which causes the degradation of people’s health, and the collapse of their lives and their homes—resembled the Japanese invasion of China. The terrible streetscape of London’s depicted in the story was not at all unfamiliar to Chinese readers. More likely, Gu’s depictions might have been written based on experiences in China.

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<sup>49</sup> Gu sets three of his stories in foreign countries/areas—“Dream of Peace” in the United States, “Bizarre Pestilence in London” in Britain, “Under the North Pole” in the Arctic. None of the characters are Chinese.

However, sociopolitical resemblance was not the sole reason for setting the story in London. The design principle of the chemical weapon in this story requires a foggy city, and London fits the bill:



In the story, the first part of the chemical compound above is carried out at the German spies' base; nitrogen dioxide ( $\text{NO}_2$ ), a catalyst, is released into the air. Only ample water ( $\text{H}_2\text{O}$ ) in the air would make the second step, the forming of nitrate, possible—and London's fog would serve the purpose. Gu is certainly motivated in this story by Chinese national issues, but scientific rationality is also an essential ingredient.

If Gu Junzheng meant to offer a prediction for the war in China, it could be concluded from the two stories that (1) science and technology play an important role in wars; (2) science and technology used by the evil side are doomed to fail; and (3) a nation's territory should not be violated in the name of "peace." While recognizing the tremendous power that science could have in determining the nature and outcome of a war, Gu nevertheless showed a distrust of state or institutional power. In "Dream of Peace," the whole country, including officials in the State Department are brainwashed by the EN's hypnosis. In "Bizarre Pestilence in London," a whole group of national elites assembled by the Home Office fail to discover, after endless meetings and discussions, the cause of the pestilence. In "Under the North Pole," the entire world, except for an anthropologist who happens to be at the North Pole, is in the dark about what happens during the three hours when all the compasses fail to function. In these stories, Gu

suggests that scientific research is an individual endeavor that relies on actual practice. Collective work, especially when organized by the state, seems to hinder scientific discovery: people in groups are more likely to be misled. Thus Gu's stories display a strong sense of individual heroism.

The idea of an individual not closely related to a particular group did not conform to the prescriptions of left-wing literature, which favored class unity and collective action. In the "Foreword," he mentioned that science fiction was similar to detective stories, but essentially different from "pure literary works" (*chun wenyi zuopin*) (Gu 1940a: iii). This view can be observed from the structure of his stories, which noticeably borrow techniques from detective stories, thrillers, etc. The fictional world in Gu's stories is also dramatically different from late Qing science fiction—which normally depicted a utopian world—although some of the earlier works are optimistic about the future and some are not. One can validly argue that the difference is attributable to the influence of Western science fiction (and perhaps other genres): from the early twentieth century, there was a gradual bifurcation in Western attitudes toward increasing technological change, with the "elitist" modernist camp in science fiction writing taking an obviously hostile attitude to technology (Roberts 2006: 156–158). Gu's pessimism about the role of technology in creating a better future could have been influenced by this trend in the West. Nevertheless, Gu's attention to individual scientific explorers and their discoveries about social evil was also highly relevant to an idea of historical rationality. For Gu Junzheng, the future (or to be more concrete, the result of the war) was a puzzle to be solved with a set answer, rather than a mystery that will never be uncovered; "errors"



caused by the malicious use of science and technology can and must be corrected. The impetus of his writing is thus to lead people to the “right” future through the right reactions to social issues: equipped with advanced knowledge of science and acting according to moral standards, people can eventually achieve justice.

As with the procedural steps in a scientific experiment, there is a general structure even in the simplest form of science fiction. Not surprisingly, as an experienced writer of scientific essays and a reader of Western science fiction, Gu also gave a similar structure to his works. One formula found in Gu’s stories is the following: a mysterious phenomenon is recounted; a hero (who tends to be male; female characters in his stories are passive and without much knowledge, a point I discuss in the next chapter) investigates the facts; the hero discovers the secret, but the villain seizes the hero; using strategy and rationality, the hero defeats the villain and saves the nation/world.

The formula seems to be simple and, from a present-day perspective, even cliché, but it was new in the history of Chinese science fiction. While the late Qing science fiction writers put their emphasis on creating new vocabulary in the field of literature (Heroldova 2004: 537), in the 1930s a new generic consciousness, built on the precedent of late Qing and early Republican science fiction and science fiction translations, emerged. A change (though a gradual one) in the structure and narrative style in science fiction marks the rise of this new science fiction. The traditional intrusive narrator, the *zhanghui* chapter style, and the semi-classical language almost disappeared in the new science fiction represented by Gu; the zeal in explaining scientific principles in the narration further differentiates this fiction from its predecessors.

Gu Junzheng's interest in politics centered around war; his stories make frequent reference to territorial demands in national conflicts. His understanding of politics is of course not terribly sophisticated, but it is a sign of a writer of "non-pure" literature expressing his concern for the pressing issues of the day. No matter how hard he tried in his fiction to introduce science (the main purpose in writing science fiction), Gu could not help but respond to current issues. After all, the ultimate purpose of popularizing science was to make China a stronger country, and that goal is inextricably intertwined with politics.

## II. Defining the Righteous

The search for reason in life reflects characteristics of scientism, a concept we associate with the May Fourth New Culture movement and that had already been challenged in 1920s China.<sup>50</sup> Gu Junzheng's stories also question the omnipotence of science, though Gu clearly believes in the efficacy of science for national development. In this sense, Gu's attitude toward science and the people who control it is a complex one. As mentioned above, the idea of science and technology being used in a righteous way was very important to Gu Junzheng. On the one hand, he recognized and emphasized the power of science and technology throughout his fiction; on the other hand, he insisted

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<sup>50</sup> In 1923, Zhang Junmai (1887–1969) gave a talk in Qinghua University with the title "Philosophy of Life" (*rensheng guan*), arguing that philosophy of life has nothing to do with science. People who promoted science as an omnipotent force, such as Hu Shi (1891–1962) and Ding Wenjiang (1887–1936), published articles in response, criticizing Zhang and his "school of the metaphysics" (*xuanxue pai*). Zhang wrote articles to fight back; other scholars, such as Chen Duxiu (1879–1942), Liang Qichao, and Wu Zhihui (1965–1953) joined the debate, too. Most of the articles in the debate are collected in *Kexue yu renshengguan*, published by Yadong Library (Yadong tushuguan) in 1923. For a systematic description and analysis of the debate, see Huang 2002.

that if used for evil purposes, even the possessor of high technology would be defeated by the righteous side.

One of Gu's thoughts on the ethics of science reflects the fragility of science when evaluated under the criteria of justice. For him, whether or not a scientific utility or technology is righteous is often ambiguous. In "Dream of Peace," the latest powerful invention—hypnosis—gives the EN the ability to control people's minds. To the US spy Malin, nothing can stop the "technology," so he decides to make use of the technology himself and simply change the content of the message instilled in people's minds. Malin brings Dr. Ligu'er under control in a violent way, and then forces him to broadcast a script composed by Malin himself: the idea of peace between the US and the EN is a conspiracy. The next day, when the US people awake from their dreams, they have forgotten about the "peace" they once demanded, and begin to call for war against the enemy.

Malin is clearly on the righteous side, but his means of saving the country are similar to those of the villain. Here, arguably, a crucial criterion of righteousness is to which side one belongs. But is there any possibility that one on the "righteous" side can be evil? In the story, when Dr. Ligu'er refuses to use Malin's radio script, Malin threatens to torture him with the most brutal and excruciating techniques. Dr. Ligu'er gives in after hearing these threats—fortunately for Malin, who was worried that he didn't have it in him to carry out the torture. But what if Dr. Ligu'er did not surrender? Malin would have to choose between being cruel to the scientist and allowing his nation to fall. Most

probably, he would choose the former—after all, he had already killed three of Ligu'er's assistants.

When Ligu'er says that Malin should not use torture on him, Malin replies: "You should understand, the way your country's soldiers treated common people in the US is ten times worse than that. Now I just want revenge. I will return an eye for an eye, a tooth for a tooth! If you have reasons to torture US people, why can't I treat you with something in return?" Here, the logic of revenge supersedes the pursuit for righteousness, and the narration becomes dominated by irrational emotion.

Furthermore, although Malin successfully brings Ligu'er under control without truly having to hurt him, he manipulates the US people, too. Who decides about the justice of his deed? Who endows him with the right to act according to his own standard of righteousness? These questions are left unanswered in the story. It seems that because the US is impeded by the EN, the former naturally acquires the status of the righteous. In this sense, the story lacks a sense of reflection on what the hero ultimately does.

In Gu's fourth story, "Sex Change," the evil use of scientific discoveries is punished in a more violent way. This story deals more explicitly than the others with the morality of science and with social ethics. The story is about three people: a famous biologist, Dr. Ni Weili; his daughter Ni Jingxian, and his student Shen Dagang. Dagang is in love with Jingxian, and they were planning to marry each other. After learning of their wish, Dr. Ni pushes Dagang to go out into the world to pursue a successful career, in order to give Jingxian a better life when they do get married. When Dagang comes back two years later, having achieved great success, Jingxian is nowhere to be found. Using a

newly invented treatment, Dr. Ni changed her into a man, and now she (or he) is her (his) father's research assistant! Dr. Ni explains to Dagang that he wanted Jingxian to stay with him forever, devoting her life to scientific research. If she remained a woman, Dr. Ni explains, she would get married and never be able to assist him in his research. Only if she became a man could she (he) carry on her (his) father's career. Dagang is very angry. He tries to change Jingxian back into a woman, first testing the male-to-female potion on Dr. Ni, who changes into an old woman without any knowledge of science. Dagang turns crazy. He kills the old woman, knocks down the young man (Jingxian), and finally delivers himself to the police. In the end, the narrator reveals his identity to the reader: he is Ni Xinsheng, the former Jingxian; he has married as a man and now has two children.

An obvious intention to address science's potential influence to social ethical relations can be observed in this story, which will be discussed in Chapter 4. Here I would like to call attention to the way Dr. Ni, the villain, is treated in this story. Like Dr. Sitanqi'er, the German pathologist in "Bizarre Pestilence in London," Dr. Ni's death is caused by his opponent. Strictly speaking, Shen Dagang is not a "hero" in this story. He does not fight with Dr. Ni in a rational and mature way. Rather, he loses his sanity, takes a life, and leaves his lover behind as a transsexual. Nothing is resolved, and there is no happy ending.

The extremely violent way Dagang treats Dr. Ni turns the story into a moral censure of bad scientific practices. Once again, a good person cannot overcome the villain using scientific achievements; the only way for Dagang to punish evil and repair (if only possible) righteousness is, ironically, through violence. This story is obviously

different from the other three in terms of its narration of scientific principles: it does not contain much concrete scientific explanation about the possibility of sex change, or any theoretical calculations. Gu Juzheng seems to have decided to bring out a mere demonstration of how science can be used in a wicked way, and ruin people's lives. Accordingly, Ye Yonglie's (2005) comment that "Gu Junzheng is different from Lao She; he belongs to the School of Verne"<sup>51</sup> is not valid. Gu does think about the social issues intertwined with and exaggerated by science and technology.

In Gu's stories, it is evil people who possess the most advanced science and technology, which is rarely the case in earlier Chinese science fiction. Furthermore, they benefit from national support (in "Dream of Peace" and "Bizarre Pestilence in London") or institutional support (in "Under the North Pole," the villain is a former Nobel Prize winner who has a whole group of investors behind him), or by dint of their own scientific research (in "Sex Change"). Removing evil for the sake of righteousness entails eliminating evil purposes in scientific research—for example, using science against the natural environment, against other countries, and against other people. But these proposals are unrealistic, and Gu could not have been unaware of this. So eventually, the call for righteousness must be realized by scientists/intellectuals themselves. It is the scientists/intellectuals who will push history forward.

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<sup>51</sup> In a broad sense, the School of Verne refers to those science fiction writers who follow the model of Jules Verne, focusing on social/moral issues raised by the development of science and technology. It is also referred to as the school of soft science fiction. By contrast, hard science fiction refers to those usually optimistic about the future of the human kind with science and technologies highly developed. Writers who create such kind of works are sometimes identified as belonging to the School of Wells. But none of these terms has a strict definition.

### III. The Issue of the Intellectuals

I have argued that there is a kind of heroism in Gu Junzheng's science fiction. While he has villain scientists in his stories, the emphasis is on good scientists/intellectuals who serve as their heroic foils. Interestingly, the hero is often an expert in other fields than that addressed in the story—he can be a knowledgeable spy, a chemist, or an anthropologist. His general knowledge helps him to formulate hypotheses, and his courage to act upon them allows him to beat the villain in the end. But what are the differences between the good and the bad characters? What do they have in common? In thinking about questions like these, Gu touched on one of the most significant issues in modern intellectual history: the relationship between intellectuals and society.

In understanding the value of intellectuals in Gu's mind, I first examine the story "Dream of Peace," in particular the short conversation between Malin, the US spy and Dr. Ligu'er, the inventor of hypnosis. When Dr. Ligu'er refuses to use Malin's radio script to hypnotize the US people, he says he is willing to die like his assistants, who were shot by Malin. Malin responds: "No, I will absolutely not shoot you. Your death does me no good..." and then he threatens the scientist with torture. The scientist soon gives in: he trembles, almost cries, and exclaims in fear: "I can't bear the pain. I am a frail scholar (*wenruo de shusheng*), I can't bear that. I will do whatever you want to me to do."

Ligu'er's self-identification as a *shusheng* is thought-provoking: scientific scholars have always belonged to the literati, even though they seldom make an appearance in Chinese intellectual history because they were considered to be inferior to

the “pure” literati, who wrote the very intellectual history from which the scientists were excluded. According to Benjamin Elman’s, the learning of the cosmos was reflected on at the philosophical level rather than the technological level. *Gewu zhizhi* or *gezhi*, the method to understand the world through investigation of things, developed by Zhu Xi (1130–1200) and his successors, emphasized the literati’s moral cultivation. The interest to explore the physical world was carried on under the notion of *gewu*, but was not represented as the ultimate goal of this method. Science was often entangled with the learning of the classics (Elman 2005: 5–9). In modern China, when science gained more weight in the social knowledge system, one would expect scientists to have earned a greater representational presence as a social group. But this is not the case; the old prejudice remained in place. And more important, scientists still considered themselves to be *shusheng*, a near synonym of *shi* (literati).

A basic difference between non-scientific intellectuals and scientists is that the latter’s special knowledge endows them with a certain power, which can directly act upon and affect the physical world. Gu was well aware of this. Thus, in his fiction, even when a scientist, such as Dr. Ligu’er or Dr. Ni, goes against the righteous, he is not eliminated. He must be kept alive, or the evil cannot be rectified—“Dream of Peace” and “Sex Change” serve as two examples from different perspectives. In this sense, the story suggests that the evil use of science can only be dealt with in a scientific way. Similar examples are not to be found in late Qing or early Republican science fiction. It is in Gu’s stories that the notion of “valuable scientists/intellectuals” first appears.



People often face the choice of being good or bad, especially during a time of war. It is the same for intellectuals. In Gu's fictional world, with the power to change physical reality, a scientists' choices are especially important to society: if they choose to be good, they can save lives or a country, in the process winning for themselves moral satisfaction; if they choose to be bad, they can contribute to the call of unrighteous nations, or fulfill their personal selfish desires—money, sex, a quest for the “truth,” etc. Dr. Ligu'er in “Dream of Peace” and Dr. Sitanqi'er in “Bizarre Pestilence in London” serve evil nations and do harm to other people; Dr. Ni in “Sex Change” acts upon his own selfish desires; and the villain in “Under the North Pole” chooses evil for the sake of money.

“Under the North Pole” is narrated in a third person voice that focuses on the hero, Kaien. One day, all the compasses on earth fail to function for three hours. The only person who knows what happens during the three hours is Kaien, an anthropologist who is at the North Pole conducting research on Eskimos. When he loses communication with his fellow scientists, he discovers a hole in the ground that leads to a large underground project. There he meets Kameilong, a former Nobel Prize winner, his two assistants, and his niece Shalong. Soon he learns that Shalong is under virtual house arrest, because she knows about some secret deals that Kameilong has been making. After an exploration of the project, Kaien discovers that Kameilong is planning to bomb the magnetic iron ore at the North Pole, and substitute it with some man-made magnetic iron that he invented. In this way, he hopes to earn money from the project. Kaien warns Kameilong about the potential risks and blames him for his selfishness, but the latter insists on continuing with

the plan. Kaien is aware of a mistake in Kameilong's calculations, knowing that the cave is going to collapse, so he escapes with Shalong from the cave. Things happen as Kaien expects, and Kameilong dies in a huge collapse of the ground caused by the bomb he installed to destroy the natural iron ore. Fortunately, the man-made magnetic iron is activated by a great frictional force produced during the collapse, so the earth soon returns to normal, as if nothing has happened.

In this story, the money-driven scientist loses his reason and conscience. His failure is caused by his imprecision in his calculations. Contrary to generic expectations, the hero Kaien does nothing to save the earth; rather, he is mostly just a witness. Viewed from this perspective, the story seems to be a narration of comeuppance with some scientific elements, a traditional theme. Together with other stories by Gu, which praise righteous motivations in scientific practices, this story highlights the issue of intellectuals' self-fulfillment in terms of serving social moral standards: their intelligence should not be used to gain personal profits, but rather to serve the social good.

So how should an intellectual fulfill himself? Based on Gu's stories, we can portray an ideal scientist: he (Gu apparently has a gender bias against women, an issue I treat in the following chapter) has excellent understanding of his own field, and has broad knowledge in other fields. He must not be driven by excessive desire for money, immoral emotions, and cowardice. He must have the ability and the courage to take action. He is patriotic, but he should have the ability to distinguish between the righteous and the unrighteous, and so forth.

#### IV. Conclusion

The portrayals of scientists by Gu no doubt provided new characters to the readers, yet these characters were not totally new in terms of ideological quality. To the student of modern Chinese literature, Gu Junzheng's portrait of a good scientist can seem familiar: the biologist Yu Shifu in Xia Yan's (1900–1995) *Fascist Bacteria* (Faxisi xijun, 1942). Yu once believed in the nobility of a politics-free environment for science, but eventually he realizes that national security was a very important precondition of pure scientific research. Xia Yan's protagonist is a rare case in modern Chinese literature of a scientist portrayed, but even protagonists in later non-science-related revolutionary works can be comparable to Gu's heroes. For example, Yang Zirong in *Tracks in the Snowy Forest* (Linhai xueyuan), a heroic soldier of the Eighth Route Army shares has many characteristics with Gu's heroes: in terms of being patriotic, righteous, and professional in their fields, these characters do not contradict Gu's ideal: many of the criteria can be found in characters in other genres of fictional works as well.

If we look at the situations in Gu's stories as scientific experiments, then those who behave correctly under the many variables designed in Gu's experiments are considered good scientists. Those who fail have simply made wrong choices under certain conditions. If those conditions did not exist, they would have behaved like good scientists, too. The best thing would be to eliminate the variables: the lure of money, sexual desire, evil political interest, etc. Coincidentally, Communist theory promotes the abandonment of personal desires and political factionalism, which could create an ideal

environment in which all scientists could behave well, which creates a favorable environment for Gu's stories to be echoed in science fiction written after 1949.

In the late 1930s and early 1940s, when Gu wrote these stories, he probably had not gone so far. His thinking about the institutional system of scientific research only touched upon political ideology. Yet along this line, Marxism would appear in science fiction in the near future, and it so happened after 1949. But as discussed in the previous chapter, a science fiction that is also meant to popularize science education does not readily lend itself to expressing ideology. The two purposes coexist uneasily in a single genre. Since other genres of literature could more easily satisfy propaganda needs, science fiction was freed from a political role in order to serve its educational function.

Written at a time when China was experiencing a period of deep crisis, Gu's fiction is inevitably colored with political ideas. His understanding and prediction of history, for instance, have strong connections with politics. Gu inherits and carries on traditional literati notions about the state and the national discourse in late Qing science fiction. Furthermore, Gu's tendency to treat history like an experiment in science ethics would have great influence on future science fiction, seen particularly in the strong interest to reconstruct significant historical events, such as the Cultural Revolution, in science fiction after the 1990s. In the previous chapter, I argued that Gu Junzheng's science fiction is strongly entangled with current political issues, a literary tendency that was strong at the time Gu was writing. As an influential trend in fictional writing in the late 1930s and 1940s, the theme of national defense surely influenced Gu Junzheng, resulting in an undeniable political color in his works. Of course, it did not become the

central theme in all fiction;<sup>52</sup> but it is not rare for people with a strong sense of responsibility for the nation, like Gu, to adopt the discourse. It is especially the case when we consider science fiction as a genre, which deals with relations among humans, their technological discoveries, and the physical world.

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<sup>52</sup> See Perry Link's (1981) study of the School of Mandarin Ducks and Butterflies for an example of non-nationalist fiction in the early twentieth century.

## Chapter 4: Old and New: Gender Issues and Morality

It is apparent that the political is only one facet of Gu's fiction. On another level, his fiction deals with the new terms, thought, and problems that come along with new technologies, which suggests the possibility that the human world can be changed in significant ways. In Gu's stories, what can be changed are: gender, natural disaster, or the directions the compass points to. The new also calls for changes in the literary world: new terms to adopt, new methods to explain, and new ways to narrate. While newness is clearly evident in Gu's fiction, the "old" does not disappear completely. As a matter of fact, his fiction sometimes assumes a traditional standpoint, even as it asserts a modern position. This is parallel to the general case of Chinese literary modernity: on the surface it looks to radically abandon tradition, but traditional elements remains in more subtle ways (Denton 1996).

This chapter considers the "old" and "new" in Gu's fiction in terms of gender and morality. In many ways, the old and the new co-exist in these stories, making Gu's fiction typical of the time. Nevertheless, I would like to argue that the newness is particularly of the scientific culture.<sup>53</sup> Gu's thoughts about gender and morality derive from his

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<sup>53</sup> The terms "social culture" and "scientific culture" were coined by C. P. Snow in 1959 in his Rede Lecture delivered at the University of Cambridge. He argued that two groups of intellectuals had been formed in Britain, one was literary intellectuals and the other was scientists. The two had their respective cultures, which were significantly different with each other. He further argued that this situation was extremely harmful for Britain and the whole Western world. Although the lecture was a product of the Cold War, the idea of the "two cultures" is now widely accepted.

recognition of the necessity to re-evaluate the social moral system with science rising as a major social force.

### **I. Gender as a Variation in the Age of Science**

Women's liberation was among the many issues that new intellectuals considered in order to "modernize" China in the late nineteenth and early twentieth centuries. Yan Fu and other critics felt that the old family system was unsuitable for modern life;<sup>54</sup> and the ideological front of the May Fourth movement, *Xin qingnian*, published essays on women's liberation with its first volume.<sup>55</sup> In the wave of calls to "emancipate women," three topics were discussed most often: (1) the patriarchal family ethics (women are subservient to the male-centered family; arranged marriages; chastity, etc.); (2) equal access to education for women; and (3) women's equal political rights (Zhou 1996: 360–362). Although gender equality was far from achieved, women's social status improved greatly during the late Qing and Republican eras.

Compared to the rising social rights and the new opportunities given to women, respect of women's intelligence lagged behind. Consider the representation of women in literature: few female protagonists are correlated with intellectual activities; almost none of the most impressive female figures of modern Chinese literature are portrayed as intelligent in an obvious way: Xianglin sao [in Lu Xun's "Zhufu" (The new year's sacrifice)], Chen Bailu [in Cao Yu's *Richu* (Sunrise)], Gao Shuying [in Ba Jin's *Chun*

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<sup>54</sup> Referred in Zhou Cezong 1996: 360.

<sup>55</sup> In Volume 1, Issue 5, *Xin qingnian* published Chen Duxiu's essay "1916 nian." Later it also published Tao Menghe's essay "Funü wenti" and Zhou Zuoren's translation "Zhencao lun" in 1918, and essays by Lu Xun, Hu Shi, etc.

(Spring)], Fan Yi [in Cao Yu's *Leiyu* (The storm)], and Zijun [in Lu Xun's "Shangshi" (Regretting the past)], to name only a few of them. Even with the educated "new women" protagonists, such as Zijun and Gao Shuying, their authors use them to pursue moral problems rather than treating them as real "intellectuals." As Wendy Larson (2004) observes, women are bound to be discussed in terms of moral issues.

This situation is a reflection of the social reality of the day: despite the May Fourth calls for women's liberation, real freedom for women was not achieved at all levels of society. The intellectual discrimination is well illustrated in Gu Junzheng's stories. In his fictional world, women are ignorant of science; they are only attached to love and family, and they are always to be rescued by men. Similar ideas can also be found in his scientific essays.

The female protagonist in "Under the North Pole," Shalong, is a good example of Gu's objectification of women. When the anthropologist Kaien finds the underground building and enters it, the first person he meets is Shalong, a woman who immediately catches the scientist's eyes:

In this bizarre room, he found another new miracle—a very beautiful woman. Her beauty made the young scientist forget all the other women in this world. . . She was only about twenty steps away from him. She was covering her neck with a hand, looking very terrified. . . Her delicate and willowy body had a fitted short gown made of white fur on, along with a luxuriant longuette made of the same material. On her exquisite feet was a pair of Eskimo mukluks. Her dark yellow shiny curvy hairs, framed by the white fur, were set off to advantage. . . Her cherry red lips formed a little "O" because of surprise. Her blue eyes were open wide. (Gu 1940c: 93)



The scientist is apparently attracted to this woman's physical appearance: his fascination has nothing to do with his knowledge as a scientist or his search for the scientific truth; rather, it is a mixture of sexual and exotic beauty. For Kaien (probably a British man), the woman is exotic only because of her Eskimo costumes. For the writer and the reader, who is predictably Chinese, however, the exoticness comes both from her ethnic dress and from her race. The Eskimo-style appearance of Shalong stands for exploration of the indigenous civilizations in remote areas; her being white reminds the readers that she is not the same in racial terms, and thus adds another level of exotic flavor to the story. She is the charming product of Gu's imagination: pretty, delicate, well dressed, white, and weak. This woman's exoticness and sexual appeal immediately distinguish her from the main plot of Kaien's struggle with Kameilong. She is turned into a source of inside information, a *prot ég é*, and an ornament of the story—in short, an object.

After Kaien is caught by Kameilong, Shalong's uncle, and trapped in the underground building, Shalong becomes his nurturer: she provides him with food, inside information, and tenderness. He gets to know her situation: because she has been exposed to her uncle's secrets, she is under "house arrest" in the North Pole, and will be there forever. When he further learns of Kameilong's evil plan to bomb the magnetic iron ore, his feelings of obligation to save the woman as well as the world fuse into one. The woman contributes no intelligence to the story. What she has are physical attraction, tragic experiences, tenderness, and kindheartedness, attributes associated with her gender. Whereas Kaien is the embodiment of enlightenment and scientific knowledge, Shalong is the object in need of salvation by that knowledge.

“Bizarre Pestilence in London” presents a similar case of objectification. The female protagonist, Mengna, who appears to have undergone higher education, still relies on her father and her young male friend, Yin’gelang, to understand what is going on. She is determined to “protect the red-haired tall American young man” “in the crazy situation,” but she can only “walk with him arm in arm” (Gu 1940*b*: 50). Again, the female protagonist wholeheartedly supports the male hero, with her tenderness and the bravery she shows facing the villain, but she is not equipped with enough knowledge to make any intellectual contribution. The nefarious plot is finally discovered, and the city saved, by Yin’gelang; the story is pushed forward only by him.

Based on the above observations, it is evident that there is gender discrimination in these stories. But arguing this is not my purpose here. Gu’s patriarchal thinking is likely unconscious: he has simply been immersed in China’s patriarchal tradition. Yet his attitude to gender issues was a complex one. Instead of thinking of the two genders in terms of their varying capacity to learn science, I would argue that Gu was more inclined to “define” the two genders’ respective functions in science as leading and supporting. To further understand Gu’s view about the two genders in the field of science, let us move our focus away from fiction and look at his essays. In most of Gu’s scientific essays, one of three types of narration is used:<sup>56</sup> (1) objective explanation of scientific principles, or scientific and technological history; (2) third-person narration of an everyday story that has scientific principles in it; there are characters in this kind of story; (3) first-person narration of an everyday story, which, again, has scientific principles in it.

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<sup>56</sup> The categorization is made based on Gu Junzheng 1962 and 1981.

Essays of the third category typically have a first-person narrator and some family members or friends, and this is the only category in which female characters are involved. A frequently appearing figure, “my wife,” is most noticeable. In “Luotutorong paozi de gushi” (The story of a camel velvet gown, 1936; 1981: 1–2), one night the wife wants to wash “my” robe with gasoline,<sup>57</sup> and “I” stops her because there is a fire burning in the stove. His concern is that the volatilized gasoline would burn and cause an explosion. At first, the wife does not believe him: “This is a bedroom, not a classroom. If you want to teach your principles, go teach them in a school.” In the end, she is convinced, although she does not admit defeat: “OK, you are a saint. If I don’t listen to you, you will be upset, lecturing on and on.” In another essay, “Huang qipao” (Yellow cheongsam; written in 1940; in Gu 1981: 61–67), the wife wants to buy some yellow fabric and have a tailor make her a mandarin gown. After a long story about acquiring a piece of cheap fabric, the author goes on to tell how the wife mistakes the desired yellow piece to be white, because of the yellow light irradiating on it. She makes a parallel between her being upset with not having the right color and his anxiety about his work: “This is not your issue; of course you are not anxious. If you could not find a book or a manuscript, you would be anxious, too.” After thinking about it, “I” agrees with her on this. The next day, the wife finds the fabric yellow, and learns from “me” about the refraction of light.

Set in the context of everyday family life, the tone of these essays is light-hearted and humorous, with only a little innuendo about the wife’s temperament and understanding. The wife is depicted as ignorant about science, but capable of dealing

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<sup>57</sup> Grease is soluble in gasoline; the method was commonly used to clean stained clothes.

with other issues. Such differences between genders seem to be taken as the norm in Gu's literary world. In a sense, with a balance between male and female, family harmony is maintained. In the words of the wife, a division of the two genders' roles in terms of science is suggested: the male teaches (at school), and the female listens (in the bedroom); the male dominates (as a saint), and the female supports (as a follower). According to this division of labor, science and a scientific view of everyday life are the male's domain, while experience-based everyday life is the female's field. Gu examines gender issues in terms of social culture versus scientific culture and provides his judgment of it: science does not belong to women. If Gu could not avoid influences from deep-rooted Confucian patriarchal values, he did try to provide a more balanced interpretation of gender relations in the age of science.

Viewed from this perspective of gender difference, "Sex Change" raises more serious questions. The old biochemist, Ni Weili, changes his daughter, Jingxian, into a man using his own sex change technology. When Jingxian's fiancé Dagang finds out, he goes crazy and asks him why. Dr. Ni explains that it is for the sake of his scientific work:

"You think I am willing to yield to you, allowing you to take her away from me? You bookworm! You don't know how I love her. For years I have devoted myself to scientific research, day and night, without any rest. All I have done is to change her into a son. Sigh! You geek! You think I will allow any stupid kid to make advances to her? . . . That is not something I can allow to happen, because she is my kid. If she were a boy, I wouldn't have bothered to do this. No one would pay court to her; no one would make advances to her. With a son, I can let him continue the work that I can't finish. In this way, we can make a contribution to China's scientific field. What an admirable work that would be!" "But nature cheated me. . . [It] gave me a useless girl, who would be grabbed by a stupid kid like you. If I hadn't changed her with half of my life's work, everything would come to an end. . . Look, relying on my brain, I have

conquered nature. I have grabbed her back from you—your robber’s hands. . . There are many [other] girls in this world. They will accept your stupid love.”

What the old scientist claims seems paradoxical: he talks as if he had a very intriguing topic to work on, so intriguing and time-consuming that he had to have a son to carry on his work; but for half of his life, he has done nothing but work to change his daughter into a man. This makes one wonder what his real purpose is: could it be that he wants no one other than himself to get close to his daughter? Could it be that he wants his child to stay with him as a man rather than a woman? If that is possible, the issue then changes into an incestuous affection. The story thus can be read from two perspectives: gender and incestuousness; both lead to interesting observations.

An important idea in “Sex Change” is that emotion and knowledge are highly associated with sex. After she is changed into male, Jingxian loses all her love for Dagang. The past becomes vague: he (Jingxian) “seems to recall that he once loved Dagang . . . He sincerely feels sorry for Dagang, but the past love cannot be restored . . . [He feels] the fact that he was once a woman and he loved Dagang is an old farce, which should be forgotten as soon as possible” (268). Jingxian does not only lose her female appearance, but also loses all the memory and emotion that she once had as a woman. Similarly, when the old scientist is injected with the medical formula that changes men into women, he becomes an ignorant old lady, with no knowledge of or interest in science at all. This is why Dagang understands Jingxian’s sex change in the following way: “Jingxian did not die; she is just eliminated in an inconceivable way . . . She is engulfed in nihility” (261). The change of sex actually creates a different person. Sex, or gender,

thus has a direct relation with a person's knowledge and worldview. Why is a girl "useless"? Why can't Jingxian assist her father as a (married) woman? The story seems to claim that science is the exclusive domain of men, and gender is the only thing that matters for one to be qualified to enter that field.

Of course, as suggest above, the story can be read from another perspective: incestuous love. Apparently the old scientist has an abnormal love for his daughter. It is so strong and anomalous that he wants to deprive her of the right to have her own family, which is socially expected for women (as well as for men). The incestuous love can be recognized as a heterosexual one: Ni Weili changed his daughter's sex out of jealousy vis-a-vis Dagang, so that no man could ever marry her. It could also be explained as a homosexual one: the old scientist in fact wants his daughter, the object of his affections, to be a man. When Ni excitedly explains the invention upon Dagang's arrival, he emphasizes that earlier inventions could only change secondary sexual characteristics, whereas his can change both primary and secondary sexual characteristics. If Ni conducts his research merely to prevent a possible courtship toward his daughter, to change her "completely" into a man would seem a little unnecessary. But if male is the preferred sex, it is reasonable to do so.

Whether the incestuous love is heterosexual or homosexual is not clear, but that is not central to my discussion. We should not forget that Gu Junzheng supports the idea that science fiction can teach people scientific knowledge. Compared with the other three stories that he wrote, this one is special in many ways: it is the only one set in China; it is the most complicated in terms of plot; it has a first-person frame narrator, who turns out

to be the transgendered “son” in the end—a narrative technique typically used in detective stories; it provides the least explanation of pure scientific principles; and so forth. If there is any “hardcore” scientific content in “Sex Change,” it is the introduction of primary and secondary sexual characteristics, but this part of the story is brief and not as “professional” or “technical” as in other stories.

Some scholars have argued that “Sex Change” is Gu’s best and most “original” work (Lin 1998), a reasonable judgment, considering the unique features of this story discussed above. The issue of gender is among the author’s most original ideas about science. The way he views gender differences in science is Confucian: the man and woman are married to each other, and are related “through the complementary rights and obligations attached to their structurally assigned roles and statuses” (Lebra 1986: 222). The idea that the female cannot and should not participate in the world of scientific knowledge is no doubt influenced by traditional views of women’s education. Lan Dingyuan (1680–1733), a Qing scholar-official, makes the following remarks in the preface of his book *Nixue* (Women’s education): “Women’s education is different from men’s education. A man spends his whole life learning, so he can be familiar with the classics and histories, knowing about all of the one hundred schools of thought; but a woman receives education for only ten years, and [what] she needs to learn [is] how to deal with family issues” (in Chen 1995: 16). Although the learning of “the classics and histories” is now substituted with the modern subjects of science and technology, indicating a change in the Chinese knowledge system, women remain excluded from the realm of serious learning. In Gu Junzheng’s world, under the shadow of tradition, science

does not open its door to women—in his evaluation, the male is categorized into the field of “scientific culture,” while the female remains bound up “social and moral culture.”

## **II. Morality Challenged by Technology**

In Chapter 2, I argued that Gu has a favorable view about the importance of witnessing history. To him, direct experience of history is the most authoritative. In his essay “Shengming de lengcang” (The cryonics of life, 1936; 1981: 18–22), Gu imagines a person who lives his life in several episodes spanning thousands of years with the help of the cryonic technology. Gu considers this man’s life to be very “valuable” to the study of history, because he has “witnessed several centuries’ culture with his own eyes” (Gu 1981: 19). Nevertheless, Gu is aware of the potential moral danger of such scientific technology: “Living one’s life in several short episodes—this opinion is very fresh today. Although to most people, this kind of life seems unfeeling, with a little sense of heroism, for some people it may be of interest” (22). This statement recalls Xu Zhuodai’s “Mimi shi” (Secret room, 1912), which criticizes “Hypnotism” (a technique that can be used to prolong a person’s life far into the future when his contemporaries have all passed away) to be inhumane.

Xu’s and Gu’s perspectives were not typical of the time when optimistic views of science dominated the Chinese discourse on science. Science was commonly accepted as a hotbed of hope. Yet as can be seen in Gu’s science fiction, he is highly aware of the moral issues raised by scientific discoveries and technological innovations. Gu’s main concern seems to be the social imbalance caused by the powerful new force of science.



While his essays generally hold an optimistic view of science, Gu's fiction is more reflective, even though he claimed that first and foremost he wanted his fiction to help spread scientific knowledge.

For Gu, morality serves as a link between science and society: there can be moral judgments about scientific discoveries and scientific judgments about moral issues. Thus as far as morality is concerned, the boundary between scientific culture and social culture becomes blurred. Gu examined science from a moral perspective; science needed to be "censored" from the standards of morality. As a result, in Gu's view science related to intellectual self-cultivation, and that is the ultimate goal of Gu's re-examination of science in a Chinese context.

By "morality" and "moral issues" I mean something that can affect both individual and social conditions. In that sense, it is closely related with ethics. Nicholas Agar's distinction between anthropocentric and nonanthropocentric ethics is perhaps helpful here. Whereas the former adheres to the notion that "natural collectives and individuals are valuable intrinsically," the latter looks for "instrumental value" in things and people (Agar 2001: 4). From this line of thinking, we can see that there are two reasons for individuals to be treasured: because of the simple fact that they are humans and are thus intrinsically valuable; or because of their potential benefit to others/society. Although the meaning of morality changes with time, the moral is always expected to be for the human good. It is the definition of "the human good" that is ever changing.

With science joining in the picture, redefining the human good once again becomes a serious question: Does science consider both individual conditions and social

conditions? Does it consider all people because they are humans, or does it differentiate between people according to their background? How will science contribute to or do harm to the human good? Gu's fiction touched on these questions in its treatment of morality. His morality is mediated in at least three aspects: humanity, the physical world, and patriotism.

The issue of ethics in science concerns humanity. Science, especially biological science, often creates complex issues that challenge people's understanding of humanity. There are cases in which no "right" answer exists. In "Sex Change," science's potential violation to humanity is obvious. Dr. Ni Weili's invention can successfully change females into males; as he proudly claims, the change can happen "very naturally, causing no pain at all." And the change is complete, from body to mind. The story raises a serious moral issue: whereas the transgendered Jingxian actually feels good after being changed into the opposite sex, Dagang condemns the sex change as "horrible," "ridiculous," and "a tragedy." He considers the male Jingxian to be an "unnatural monster": "You have to change back; you were not a man originally. You were born a woman, weren't you?"

The fact that Jingxian's sex change is not carried out with her complicity adds to the moral complexity. Gu draws the readers' attention to one question: who decides whether the change is humane or not—the scientist (Dr. Ni), the original object (the female Jingxian), the infected object (the male Jingxian), or the social norm (Dagang)? If the infected object does not oppose the change, does this somehow legitimize the science behind that change and give "him" a natural status? The narrator Ni Xinsheng (the male Jingxian) states that after years have passed, there is "an irresistible power" calling him to

write down the truth of the unsolved criminal case. Can it be mere desire to uncover the truth? I would argue that Ni Xinsheng's cold and neutral narration also suggests a criticism of the inhumanity of such scientific experimentation.

The judgment that sex change is inhumane is made under the wish to keep human beings in their "original," "natural" state. In Gu's fiction, there is a similar attitude regarding the broader physical world: science is expected to work in a way that can keep the world as it is. A good example can be found in "Under the North Pole": the evil scientist Kameilong, who plans to destroy the natural magnetic pole and replace it with his own, is blamed not only because he uses science to make money, but also because he makes "all the sailors in this world lose their natural compasses." Because of Kameilong's own error in calculating the forces involved in the explosion, the story comes to a happy ending: the great frictional force generates much heat, destroying Kameilong's ice cave; and the manmade magnetic alloy is turned into a permanent one because of the high temperature. Thus the world regains a permanent, stable north magnetic pole.

Yet the happy ending comes in an unexpected way, with the quasi hero having done nothing to save the earth. In fact, there is nothing that Kaiken can do when he understands Kameilong's scheme: to rely on science to fight for and to keep the status quo would be unrealistic. In order for that to happen, first there has to be an evil force breaking the balance. In trying to keep the "natural" status of people and the world, Gu appears to be a conservative, closer to a traditional scholar than to a scientist, or in C. P. Snow's words, "anti-scientific." As Snow (1965: 11) comments: "If the scientists have

the future in their bones, then the traditional culture responds by wishing the future did not exist.” Maintaining the existing status is not what scientists look to do. In hoping for the maintenance of the status quo, Gu shows certain characteristics of the traditional literati.

In the discussion on righteousness in chapter 3, I touched on the topic of patriotism. As I argued, in Gu’s fiction, the standard of scientific deeds being “righteous” is often ambiguous and irrational. The ambiguity and irrationality are not viewed from a distance; they come from a patriotic impulse, and are justified because of their patriotism. This attitude, apparently, has a direct connection with the ongoing War of Resistance against Japan, and the then current patriotic public opinion. As is implied in Gu’s fiction, science should not harm humanity, nor should it be used to gain “national glory.” In “Bizarre Pestilence in London”, Dr. Sitanqi’er’s claim that his chemical weapon can “bring new land and new glories to my homeland [Germany]” is proved to be ineffective. Yet Gu sought to justify such emotional “patriotism” with factual evidence. While holding that science and technology should be constrained by moral standards (these standards are yet to be developed in the new era of science), Gu also suggests that people’s willpower can greatly influence reality (the war). Thus the subjective and the objective interact with each other, making it difficult to foretell the war. Because of this, it is essential that people’s willpower—patriotism—be valued. The seeming irrationality is rational and pragmatic at a deeper level.

In “Shiguan zhong de xin bingqi” (New weapon in the test tube) an essay published in 1940, Gu commented on recent ideas for national defense—the development

of an air force, antiaircraft guns, tanks, and poison gas, etc. None of them, he says, can ensure success in the war effort. Gu held that the willpower of the people is a more important factor. He compared Japan's bombing of China to what Franco did to Madrid: "Braveness is not only owned by people in uniform: this fact is forgotten by some who advocate the abuse of air force . . . They [the Japanese air force] killed many common people, causing countless tragedies, but they cannot make the Chinese 'bend their knees,' begging for peace from them" (Gu 1981: 86). Because of the non-technological factors, research and development of new weapons can mean little to those who covet other countries' lands:

The next world war—if it were to come one day—would of course be no better than this one, but it could not get much worse, either. These wars in test tubes [i.e. the research and development of new weapons] have already demonstrated to the military strategists that none of the new weapons can ensure a quick success. To our world, this may be good news, because only those who wish to provoke wars will demand quick success. (88)

In touching on moral topics, Gu's fiction connects hardcore science and technology with the traditional value system. The new elements brought up by science are evaluated in light of a conservative moral vision. The notion of science for the pursuit of a smooth and peaceful life, somewhat in contrast to the common understanding of the nature of science, shows a pragmatic view of science: it should be used as a tool, serving the people in the most effective way.

### III. Conclusion

Gu Junzheng's works reveal an interesting mélange of old and new social values. Gu chose topics that were explicitly new to his Chinese readers, and this newness was also well-grounded in a scientific foundation. Some critics have labeled Gu Junzheng “the first ‘professional science fiction writer’” in China<sup>58</sup> because he insisted on basing his fiction on scientific discoveries, something that was rarely seen in earlier science fiction or among his contemporaries. Nevertheless, Gu's fiction showed strong ties to tradition: it looked at social issues in a conservative way, hoping for a stable and peaceful current status quo. This relative “conservatism” is marked by Confucianism—“an ideology concerned with maintaining social groups in good order,” in which “the primary group is the family. A nation-state would be a family writ large” (Tamney 2002: 49). The concern for order in Gu's fiction—from the level of family structure, to social morality, and to state issues—suggests the deep connections between the “newness” of his science fiction and the old ideology.

In Gu's works, the influence of traditional fiction also manifests itself in narrative foci, the literary language, and the pragmatic view of fiction, etc., though these concerns are beyond the scope of this chapter. Here I want raise another point. The evil scientist is a noticeable character type in Gu's fiction; a common view attributes this to the influence of Wells, as well as to deeper philosophical thought at a time when science was already developed (Lin 1998). These two points are of course valid, yet I would like to bring attention to the tradition of *quanjie* (admonishing) in old *xiaoshuo* (fiction; literally

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<sup>58</sup> See Zheng Jun: Chapter 3.

“small talk”). The *quanjie* function of fiction—to write about the bad in the hopes of admonishing later generations with Confucian ideas—is well established in both classical and vernacular fiction.<sup>59</sup> The method of attaching moral implications to fiction is shared by Gu and traditional fiction.

I would like to further argue that the blending of the old and the new is not an unconscious product. Although similar phenomena can be observed in other literary genres of the same time, the case of science fiction particularly reflects the new changes in human knowledge about the physical world. The issues that I have discussed above stem from Gu’s realization that the social order will need to be adjusted with the development of science. If Gu Junzheng intended to provide a specific answer as to what that new order would be, he at least showed the readers some possible prospects. These prospects remind readers of the potential dangers in abusing science and technology in immoral ways. Gu’s view of science is a didactic one—scientists (and all people in the modern world) should cultivate themselves with the right social beliefs. The pragmatic and didactic view, one that is well accepted among his science fiction readers, sets the stage for the development of science fiction in the Communist era toward the *kepu* genre. In so doing, Gu Junzheng successfully incorporated his ideas about society in the era of science in his fiction. His objectives involve a re-evaluation of the social political ideals and moral standards in the new era. The newness of his fiction derived from his deeper understandings of the nature of science, compared to other “unprofessional science

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<sup>59</sup> Dai (2007) lists “*quanjie xiaoshuo*” as one of three basic characteristics of late Ming and early Qing fiction. At least in late Qing dynasty, the tradition has already been well established.

fiction writers”; the oldness of his fiction relates to the literary and cultural tradition that he drew upon.



## Conclusion

In the introduction, I raised questions about when and how science became a topic in fictional reflections in China, when it came to be seen as essential to society in every aspect rather than a mere tool, and what some difficulties for the Chinese in making this turn were. The above examination of Gu Junzheng's science fiction stories provides some answers to these questions. In the late 1930s and early 1940s, with Gu Junzheng's works, Chinese science fiction broke away from utopian mode of the late Qing, and for the first time treated social, ethical, and moral issues related to science itself. As social knowledge of science grew in accordance with the development of education, this change in science fiction can be seen as a reflection of changes in social thought. One of the factors that influenced the development of Chinese science fiction was the deep entanglement of literature and politics, an entanglement that had long existed in the Chinese tradition. Because of this tradition, Gu Junzheng did not see science fiction as "pure literary works"<sup>60</sup> and sought to use this popular literary genre to participate in the national discourse. Another factor was the *tiyong* (essence and practical use) theory, which was posed by the late Qing scholar-gentry reformers such as Zhang Zhidong (1837–1909).<sup>61</sup> Science and technology, the thrust of what was meant by *yong* in this formula, was considered the most important thing China should learn from the West. Because of these

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<sup>60</sup> See the "Foreword," p. iii.

<sup>61</sup> For a brief introduction of the *tiyong* formula, see Hon 2002.

two factors, it is no wonder that from its beginning, Chinese science fiction was related with politics. But Gu Junzheng made a breakthrough with this genre: aside from writing about politics, he also contemplated various moral and ethical topics and touched upon issues of scientific predictability, the power of knowledge, and class struggle. He was not able to answer all the questions that were suggested in these works, but by posing them he already pushed Chinese science fiction in a new direction.

The crux of Gu Junzheng's science fiction is scientific accuracy. Gu's quest of scientific accuracy is seen in his indulgence in explaining scientific theories in his stories, and expressed explicitly in his articles about his own writing experiences. This obsession with hardcore science deeply influenced his literary creation. On the one hand, he was a representative figure of a new generation, one that received modern science education and was truly attracted to science for its own sake. With this deeper understanding of science, science fiction entered a new stage. On the other hand, in his last science fiction story, "Sex Change," Gu stepped further into the literary field, discussing a highly complex moral issue and exhibiting a bolder fantastic imagination than his other stories. Viewed from the perspective of scientific accuracy, "Sex Change" is his least successful story, but in terms of literary quality, it is the best. As argued by Carl D. Malmgren (1991: 7), the distinctiveness of science fiction "lies not in its story but in its world." Imagination based on scientific principles, rather than total adoption of current scientific knowledge, is vital to successful science fiction. The fact that Gu Junzheng stopped writing science fiction and wrote only *kepu* essays probably indicates something about

the difficulty he experienced balancing literary imagination and scientific accuracy in this science fiction.

Now I would like to return to two more questions that were brought forward in the introduction: why did many authors abandon science fiction in the 1930s and 1940s and why were readers less interested in consuming it? And was there a cognitive gap between authors and readers? There is probably not a single “correct” answer to the former, but I would like to provide a possible explanation here. As argued in Chapter 2, Gu Junzheng struggled to balance scientific exactness, educational purposes, and the hope to predict the future in his science fiction. But in trying to do so, too much of a burden was placed on the genre. The result was that each of these intentions was only partly achieved and none fully. Viewed from the perspective any one of these criteria, the stories are therefore not truly successful, and readers would have been aware of this. Given these weaknesses, it is no wonder that writers and readers lost interest in the genre. There was perhaps a difference in writers’ and readers’ expectations for the genre, rather than a cognitive gap between them: it was not that readers could not appreciate science fiction, but that they were provided something not to their taste. In the 1930s and 1940s, enthusiastic readers of science could have turned to scientific essays, and readers who merely sought novelty could have switched to other genres, such as martial arts fiction.

Nevertheless, Gu Junzheng’s science fiction represented a breakthrough. In only four stories, he delved into many critical social issues: at the macro-level, he pursued issues of social order and national conflicts; at the micro-level, people’s moral self-cultivation. In treating these issues, he touches upon the relationship between individuals

and society, a major question dealt with in Western science fiction. Deeply influenced by traditional fiction and earlier practitioners of Chinese science fiction, Gu's attitude in his fiction shows a characteristic ambiguity: it fails to provide deep and consistent answers to questions of scientific accuracy or moral judgments. This problem can be explained through analysis of the texts. In these stories, on the one hand, science is deeply interrelated with politics. In confrontations between nations, the result is decided by justice, and justice is defined by morality. Gu's view of science finally points to the need of moral cultivation rather than for some change at the material level. This view is consistent with Gu's role as an educator, but not particularly effective for science education. Rather than arguing that Gu held a pragmatic view of science fiction, I would prefer the notion that he had a pragmatic view of literature as a whole: the educational mission he wanted science fiction to carry was to cultivate people at a general level, rather than merely their scientific knowledge. On the other hand, because of the emergence of science as a strong force in changing social life, there was the need to redefine many social norms. Since science could change the relation between people—for example, power relations and ethical relations—ideas that were taken for granted before would need to be adjusted.

In the 1940s, when the confrontation between the Communist Party and Kuomintang gradually intensified, the attention to science as a major force for social change subsided. The military and technological disparity between the two sides led people to pay attention to differences in ideologies, military strategies, and morale, etc. This probably can help to explain the paucity of literary attention to science in relation to

society during this period. After 1949, people's attention was further drawn to political ideology. With the Communist Party promoting science as an element of an advanced society, the interest to think over the issue of science increased. But this new trend was not a reflective one; rather, it was strongly influenced by the pragmatic view of science fiction. The combination of science fiction and *kepu* literature became the hegemonic model of science-related literature after 1949, at least until late 1970s and early 1980s, when Ye Yonglie and Tong Enzheng proposed the idea that science fiction should not serve science education and that it was a literary genre that should primarily examine social relations. Although the idea was criticized at the time, by the 1990s it became become the norm.

The dilemma that Gu Junzheng faced in writing science fiction suggests that the genre was not appropriate as a mere tool for education. In a society with systematic science education, science fiction is set free from a strict pedagogical mission and thus can touch upon deeper issues such as the relationship between science and the human world and the ethics of science and technology. This relative freedom of science fiction became only possible with a corresponding social development. In other words, Gu's dilemma was not his personal problem, but a reflection of his particular time and social thought. His emphasis on science education and scientific morality and his promotion of self-cultivation of the intellectuals were a product of his particular social environment.

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## Glossary

<i>Alisi Zhongguo youji</i>	阿丽思中国游记
Bao Tianxiao	包天笑
<i>Beijing wenxue</i>	北京文学
Bianji houji	编辑后记
Biheguan Zhuren	碧荷馆主人
Bing Xin	冰心
Bowu	博物
Cao Yu	曹禺
Chen Bailu	陈白露
Chen Duxiu	陈独秀
chengyi	诚意
chun wenyi zuopin	纯文艺作品
Cong Diqu dao Huoxing	从地球到火星
<i>Dafeng</i>	大风
<i>Dangkou zhi</i>	荡寇志
Dao	道
<i>Didi lüxing</i>	地底旅行
Ding Wenjiang	丁文江
Donghai Juewo	东海觉我
Ershi shijihou zhi Nanji	二十世纪后之南极
Fan Yi	繁漪
<i>Faxisi xijun</i>	法西斯细菌
Feiren	飞人
<i>Fengshen yanyi</i>	封神演义
Feng Zikai	丰子恺
<i>Fun üzazhi</i>	妇女杂志
Gao Shuying	高淑英
gewu	格物
gewu zhizhi	格物致知
Gezhixue	格致学
Gu Junzheng	顾均正
Gu Zhenhuan	顾震寰
<i>Guangxu wannian</i>	光绪万年

guofang wenxue	国防文学
Haitian Duxiaozi	海天读啸子
Han Song	韩松
Heping de meng	和平的梦
Hu Feng	胡风
Hu Shi	胡适
Huangjiang Diaosou	荒江钓叟
Huang qipao	黄旗袍
Jiaxing	嘉兴
Jia Zuzhang	贾祖璋
Jidong guo	极东国
Jing Feng	劲风
jingshen wuran	精神污染
Jinren bi guren changshou	今人比古人长寿
jiuguo xiaoshuo	救国小说
Kaien	凯恩
Kameilong	卡梅隆
Kaiming shudian	开明书店
<i>Kehuan shijie</i>	科幻世界
kehuan xiaoshuo	科幻小说
kepu	科普
kepu duwu	科普读物
kepu wenxue	科普文学
<i>Kexue</i>	科学
kexue de renshengguan	科学的人生观
kexue huanxiang xiaoshuo	科学幻想小说
kexue jiuguo	科学救国
kexue puji	科学普及
<i>Kexue quwei</i>	科学趣味
kexue shenhua	科学神话
<i>Kexue shijie</i>	科学世界
kexue xiaopin	科学小品
kexue xiaoshuo	科学小说
<i>Kexue yiban</i>	科学一斑
<i>Kexue yu renshengguan</i>	科学与人生观
kexueguan chayi	科学观差异
Lan Dingyuan	蓝鼎元
Lao She	老舍
Laoshaonian	老少年

<i>Leiyu</i>	雷雨
Liang Qichao	梁启超
Ligu'er	李谷尔
<i>Linhai xueyuan</i>	林海雪原
Liu Cixin	刘慈欣
Liu Shi	柳湜
Liu Xingshi	刘兴诗
Liu Xunyu	刘薰宇
Liu Zhenhan	刘振汉
Liubai lingliu	六百零六
lixiang kexue yuyan jifeng huixie xiaoshuo	理想科学寓言讥讽诙谐小说
lixiang xiaoshuo	理想小说
Lu Shie	陆士谔
Lundun qiyi	伦敦奇疫
Luotutorong baozi de gushi	骆驼绒袍子的故事
LüSimian	吕思勉
Mao Dun	茅盾
<i>Maocheng ji</i>	猫城记
Mei Meng	梅梦
Mengna	梦娜
Mimi shi	秘密室
Minzu geming zhanzheng de dazhong wenxue	民族革命战争的大众文学
Mu Dan	穆旦
Ni Jingxian	倪静娴
Ni Weili	倪维礼
Ni Xinsheng	倪新生
<i>Niwa shi</i>	女娲石
<i>Nixue</i>	女学
ping tianxia	平天下
Qian Zhongshu	钱钟书
Qiao Feng	乔风
Qiaofulou	乔福楼
qijia	齐家
Qin Shouou	秦瘦鸥
quanjie	劝诫
quwei	趣味
<i>Renmin wenxue</i>	人民文学
renshengguan	人生观

<i>Richu</i>	日出
Sanbai nian hou fuhua zhi luan	三百年后孵化之卵
Shalong	沙龙
Shangshi	伤逝
Shangwu yinshuguan	商务印书馆
<i>Shaonian zazhi</i>	少年杂志
Sheying de gushi	摄影的故事
Shen Congwen	沈从文
Shen Dagang	沈大纲
Shi Tuo	师陀
<i>Shijie moriji</i>	世界末日记
Shinian hou de Zhongguo	十年后的中国
shenghuo kexuehua, kexue quweihua	生活科学化, 科学趣味化
shenmo	神魔
shi	士
Shiguan zhong de xin bingqi	试管中的新兵器
shushing	书生
Sitanqi'er	斯坦其尔
Sun Baoxuan	孙宝瑄
Suo Fei	索非
<i>Taibai</i>	太白
tiyong	体用
Tong Enzheng	童恩正
tongren zazhi	同仁杂志/同人杂志
tongsu	通俗
Wang Jingwei	汪精卫
Wang Jinkang	王晋康
wenruo de shushing	文弱的书生
Wo zenyang xie <i>Bupa nifeng</i> de	我怎样写《不怕逆风》的
Wofoshanren	我佛山人
Wu Jianren	吴趼人
Wu Zhihui	吴稚晖
Xia Mianzun	夏丐尊
Xia Yan	夏衍
Xiaen Malin	夏恩·马林
<i>Xiandai kexue</i>	现代科学
Xiao Jianheng	肖建亨
Xianglin sao	祥林嫂
xiaoshuo	小说



<i>Xiaoshuo lin</i>	小说林
<i>Xin Faluo xiansheng tan</i>	新法螺先生谭
<i>Xin jiyuan</i>	新纪元
<i>Xin qingnian</i>	新青年
<i>Xin Shitou ji</i>	新石头记
<i>Xin xiaoshuo</i>	新小说
<i>Xin Xiyou ji</i>	新西游记
<i>Xin Yesou puyan</i>	新野叟曝言
Xingbian	性变
Xing He	星河
xiushen	修身
<i>Xiuxiang xiaoshuo</i>	绣像小说
<i>Xiyou ji</i>	西游记
Xu Dishan	许地山
Xu Nianci	徐念慈
Xu Zhuodai	徐卓呆
<i>Xuesheng zazhi</i>	学生杂志
xuanxue pai	玄学派
Yadong tushuguan	亚东图书馆
Yang Zirong	杨子荣
Ye Shengtao	叶圣陶
Ye Yonglie	叶永烈
Ye Zhishan	叶至善
Yin'gelang	殷格朗
<i>Yishu quwei</i>	艺术趣味
youxi xiaoshuo	游戏小说
Yu Shifu	俞实夫
Yu Zaixue	余在学
Yue shijie	月世界
<i>Yuejie lixing bianyan</i>	月界旅行辨言
<i>Yueqiu zhimindi xiaoshuo</i>	月球殖民地小说
<i>Yueyue xiaoshuo</i>	月月小说
Zai Beiji dixia	在北极底下
Zei Jun	贼菌
Zhang Henshui	张恨水
Zhang Junmai	张君勱
Zhang Xichen	章锡琛
Zhang Zhidong	张之洞
Zhejiang	浙江

zheli kexue xiaoshui	哲理科学小说
Zheng Wenguang	郑文光
zhengxin	正心
zhiguai	志怪
zhiguo	治国
zhishi	知识
zhizhi	致知
Zhou Jianren	周建人
Zhongguo kexueshe	中国科学社
<i>Zhongguo shaonian bao</i>	中国少年报
Zhongguo weiyi zhi wenxuebao <i>Xin xiaoshuo</i>	中国惟一之文学报《新小说》
<i>Zhongmei shibao</i>	中美时报
<i>Zhongshan</i>	钟山
<i>Zhongxue shenghuo</i>	中学生活
<i>Zhongxuesheng</i>	中学生
Zhou Libo	周立波
Zhou Yang	周扬
Zhou Zuoren	周作人
Zhu Guangqian	朱光潜
Zhu Minxian	朱敏娴
Zhu Xi	朱熹
Zhufu	祝福
Zijun	子君
Zuotian zai nali	昨天在哪里