Science Fiction's Imagined Technologies

with Emanuelle Burton, "The Nuts and Bolts of Transformation: Science Fiction's Imagined Technologies and the Civic Imagination"; Michelle A. Marvin, "Memory Altering Technologies and the Capacity to Forgive: Westworld *and Volf in Dialogue"; Nathan Schradle, "In Algorithms We Trust: Magical Thinking, Superintelligent AI, and Quantum Computing"; and Zhange Ni, "Reimagining Daoist Alchemy, Decolonizing Transhumanism: The Fantasy of Immortality Cultivation in Twenty-First Century China"*

REIMAGINING DAOIST ALCHEMY, DECOLONIZING TRANSHUMANISM: THE FANTASY OF IMMORTALITY CULTIVATION IN TWENTY-FIRST CENTURY CHINA

by Zhange Ni

Abstract. This article studies a new fantasy subgenre that emerged in contemporary China, *xiuzhen xiaoshuo* (immortality cultivation fiction), which builds imaginary worlds around the magical practice of Chinese alchemy and fuses it with science and technology. After the arrival of the modern, Western triad of science, religion, and magic/superstition, alchemical practices of the Daoist tradition were labeled as a "superstition" to be eradicated; however, they persisted and began to flourish within and beyond the realm of fantasy literature in the late twentieth and early twenty-first centuries. Immortality cultivation fiction has generated a magical form of transhumanism, which envisions human enhancement through techniques beyond the boundaries of "proper" science and "legitimate" religion. While transhumanism in the Euro-American West is popular among white bourgeoisie males and dominated by tendencies to reaffirm the human subject constructed by excluding the various subhuman others, magical transhumanism in Chinese fantasy explores the possibility of transcending that antagonistic relationship and making a posthuman subject and a utopian world.

Keywords: Chinese alchemy; fantasy; magic/superstition; secularization; transhumanism

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Transhumanism is an intellectual, cultural, and political movement coalesced around the belief that science and technology can provide the means to enhance the physical and mental capacities of the human body and extend life beyond its biological limitations, if not biological existence

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altogether. This optimistic vision has been buttressed by the exponential development in the fields of biotechnology, cognitive neurosciences, robotics, artificial intelligence, and nanotechnology, to name just a few. Although advocates of transhumanism are of diverse backgrounds, impulses, and political aspirations (Lilley 2012; Manzocco 2019), this movement emerged in the Euro-American West in the second half of the twentieth century and spread largely among white bourgeoisie males (Ali 2019). For them, transhumanism is a continuation and intensification of the Enlightenment project, while the autonomous, rational individual, the paradigmatic figure of liberal humanism, is to be reaffirmed and radicalized. What is to be transcended is the biological constraints that keep the human subject—or, to borrow from Sylvia Wynter, the "ethnoclass Man" (2003)—from self-fulfillment.

Tracing the formation of the human as a Euro-centric religious/racial category, Wynter (2003) surveyed the gradual secularization of our modes of being human from the God-worshipping Christian to the ratiocentric Man—that is, the invention of the political subject of the state from the Renaissance to the eighteenth century and the birth of the bio-economic subject of the market from the nineteenth century to the present. What this process brought into being is the ethnoclass Man, constructed by excluding women, the working class, and the non-European "primitives" as not being fully human. While various discourses of transhumanism proclaim transcending the human, what is to be transcended is not this antagonistic relationship between the human and the subhuman others. This is why Syed Mustafa Ali sees transhumanism as a discursive formation that articulates the existential anxiety of those who identify with the ethnoclass Man when "a hegemonic whiteness is subjected to increasing contestation by the nonwhite 'other'" (2019, 211).

It is true that the rise of transhumanism overlaps with the resurgence of the various others and the destabilization of the modern world system in which the West dominates over "the Rest." In this article, I argue that transhumanism, a response to the white crisis as it were, is not monopolized by the ethnoclass Man. The nonwhite others have their transhumanist stories to tell.[1] One case in point is *xiuzhen xiaoshuo* 修真小說 (immortality cultivation fiction), one of the most popular fiction genres in twenty-first-century China, and a uniquely Chinese type of fantasy that builds imaginary worlds around the magical practice of Daoist alchemy.

In the Daoist tradition, the term *xiuzhen* designates the alchemical transformation of the mortal body through medicinal, meditative, and moral practices to purge it of imperfections and reintegrate it into the primordial Dao (Min and Li 1994, 728; Komjathy 2007, 2, n. 3). The goal of *xiuzhen* is to acquire paranormal powers, extend life beyond its limits, and become immortal—*xian* 仙 in Chinese. The characters *xian* and *zhen* are used as synonyms, the former referring to a state of being transcending

human existence, the latter translated as either perfection or authenticity.[2] What follows is that both *xiuxian* and *xiuzhen* are terms meaning the cultivation of immortality.

Immortality cultivation fiction, although rooted in the tradition of Chinese alchemy, was produced under the influence of mass-market fantasy novels translated into Chinese from the West, such as J. R. R. Tolkien's (1892–1973) *The Lord of the Rings* series (1954–55) and J. K. Rowling's (1965-) Harry Potter series (1997–2007). Fascinated with and puzzled by these Western fantasy texts, Chinese fans wasted no time in Sinicizing the genre, replacing Western magic with that with which they are familiar: the Chinese magic of immortality cultivation. The product of their experiments is a fiction that has not only placed Chinese magic at the center of its world-building project but also presents ancient alchemy as compatible with, if not more advanced than, modern science and technology. What these novels have been telling is transhumanist stories with Chinese characteristics. These stories take up the task of training the citizen of the modern nation-state and the capitalist subject for the global marketplace. However, it is from these two manifestations of the ratiocentric Man that the figure of the immortality cultivator deviates. The immortality cultivator, the human subject seeking radical enhancement like her counterpart in Euro-American transhumanism, practices indigenous magic, inherits the legacy of the modern Chinese struggle against colonization, and strives to rebel against rather than replicate the ethnoclass Man. An alternative iteration of transhumanism has been brought into being in a non-Christian, non-Western context.

To substantiate my claims, in what follows I will begin by adding the category of magic to the discussion of transhumanism as a site where religion and science entangle. The playground for what I would call magical transhumanism is fantasy, imaginative literature where the stigmatized magic (or its synonym, superstition) is allowed. In the second section, I introduce the specific type of magic that immortality cultivation fiction has reimagined—Chinese alchemy—as well as its encounter with the modernist triad of science, religion, and magic/superstition. In the third section, I focus on one immortality cultivation novel, *Xiuzhen siwannian* 修真四萬年 (*Immortality Cultivation 40K*, hereafter *Xiuzhen 40K*), analyzing it in comparison with the story world of *Warhammer 40K*, a British tabletop game that the Chinese novel pays homage to. I read *Warhammer 40K* as an implicit critique against the perpetuation of the ethnoclass Man, while *Xiuzhen 40K* is an endeavor to build a new subjectivity beyond the boundaries of liberal humanism. To conclude, I propose that we, following the lead of Chinese immortality cultivation fiction, steer away from the hyperhuman tendencies in Euro-American transhumanism and push transhumanism in the posthuman direction.

Adding Magic/Superstition to the Religion-Science Entanglement

Although most of the transhumanists today would not hesitate to identify themselves as atheists or secularists, scholars have duly noted the intricate entanglement of religion and science in transhumanism, which attributes salvific powers to science and technology, revives religious utopias in the past, and is indebted to the Christian tradition in particular (Geraci 2010; Tirosh-Samuelson 2012; Bainbridge 2017). What I argue is that, while studying transhumanism, we also need to pay attention to magic, the bastard sister of religion, the polar opposite of science, and the mediating ground between these two categories. Interchangeable with magic is superstition, understood as magical—false and irrational—ways of thinking and practicing rooted in long-standing folk traditions within and beyond Europe.

Both magic and superstition are terms of a long and complex history, aimed at a variety of targets at different times and/or places by different people. They are labeling expressions with negative connotations, intrinsically biased, politically charged, extremely vague, and flexible but not completely empty as signifiers.[3] It is in the wake of the Reformation and the Enlightenment that the modern conceptualization of magic/superstition emerged: ideas and practices antithetical to scientific rationality and/or incompatible with the ideal (or, more explicitly, Christian) model of religion—that is, some form of interiorized, privatized, and depoliticized piety. Although magic/superstition came to be viewed as an obstacle in humanity's progress toward a utopian future and consequently targeted for eradication, the unwanted has not only survived but also thrived in the modern world.[4]

Commenting on transhumanism's indeterminate secular/religious identity, Abou Farman suggests that we see it as spirituality—not only a deinstitutionalized form of religion but also a "cultural zone where secular materialism overspills its bounds" (2019, 59). In his observation, transhumanists, while adhering to materialist assumptions about such things as mind, self, purpose, and the universe, push them beyond their limits to the point of transcending the secular, scientific, and materialist views. He explains this overspill by examining secularism and the secular, the former a mode of governmentality dictating the separation of religion and politics, the latter a set of ontological, epistemic, and affective assumptions that ground the political project of secularism and produce secular subjects and sensibilities. Although secularism and the secular "purport to contain religion and define its domain and boundaries clearly, and maybe eventually replace it, [they] keep generating religion and spirituality as their own effect" (Farman 2019, 60).

The very fact that the limits of secular materialism can be crossed reminds us of their porousness. The overspill is the return of the repressed. The spirituality of transhumanism has roots in what existed prior to and outside of those constructed limits: ideas and practices at odds with *both* modern science that deprives religion of its epistemological function *and* the secularized model of religion as nothing more than a matter of personal morality. Transhumanism is not only what Farman calls spirituality but also part and parcel of the persistence of magic in the modern and contemporary world. There is a magical dimension to transhumanists' reliance on science and technology to enhance the biological given and quest for redemption from human suffering. That is to say, the specific type of science and the very model of religion that are entangled in transhumanism have overspilled the conventional bounds of science and religion.

Neither science nor religion has been cut off completely from its magical/superstitious other. On the one hand, Nick Bostrom, a transhumanist philosopher, recognizes magical medicine, spiritual practices, and religious millennialism as premodern expressions of human aspirations around the world to transcend our inherently flawed existence. However, he also believes that these magical endeavors have been superseded by science and technology (Bostrom 2005). What he overlooks is that this supersession, the establishment of scientific rationality, is a secularization process that, despite its brutality, has never fully delivered on its promises. In other words, magic, the disavowed precedent of science, has never retreated.

On the other hand, a considerable amount of scholarship has been produced to put transhumanism in dialog with world religions, not only the Abrahamic religions but also non-Western traditions such as Buddhism, Hinduism, and Daoism (Mercer and Marher 2009, 2014; Trothen and Mercer 2017). However, more often than not, these traditions are treated as fixed, homogeneous, and transhistorical entities centered upon ethical teachings. Little attention has been paid to the fact that they had to be forced into the iron shoe of "legitimate" religion and that they still encompass "improper" elements identified as magical/superstitious.

Among articles that study transhumanism and religion, it is worth noticing that Livia Kohn (2009, 2014) presents Daoism as first and foremost a tradition of technical rather than ethical teachings and illustrates that Daoist alchemy and transhumanist technology share similar theories and visions. But Kohn leaves out the fact that the technical tradition of Daoist alchemy, not readily in accord with the modern, Western, and Christian model of religion, fell into the "trash can" of superstition in the twentieth century and survived thanks to the struggle of generations of practitioners. The Daoist transhumanism she introduces, one that breaks the divide between science, religion, and magic/superstition, is an example of magical transhumanism.

Wynter described the replacement of the theocentric Christian by the ratiocentric Man as a story of secularization. Her account needs qualifications. The simple, straightforward secularization process is actually marked by twists and turns, ruptures and continuities, forced reforms and unexpected revivals, and the haunting of erased practices, subjects, and geographies. First, the theocentric Christian did not disappear in the era of the ratiocentric Man. According to Wouter Hanegraaff, the post-Enlightenment condemnation of magic/superstition in the name of hegemonic science did not abandon but reinscribed the Christian superiority over the pagan others in medieval and early modern Europe (2012). As the pagan others transformed into the racial others whose erasure founded the ethnoclass Man, the subhuman others were pressured to eliminate their benighted magic/superstition and embrace modern Western civilization that is implicitly Christian. Both Christian and scientific authorities were concerned with policing magic/superstition, which was viewed as "a symptom of psychological impairment and marker of racial or cultural inferiority" (Styers 2004, 27). The policing of this symptom/marker was meant to help "produce a population of predictable, rational workers and citizens who conform to the needs of the capitalist marketplace and the modern bureaucratic state" (Bever and Styers 2017, 12–13).

Another qualification to be added to Wynter's secularization thesis is that the ratiocentric Man has always been haunted by magic/superstition. "[J]ust as religion continues to adapt and thrive in the modern world, so, too, magic and supernaturalism of all sorts not only survive but prosper in modernity" (Bever and Styers 2017, 2). In the Euro-American West, those unsatisfied with the norms of modern subjectivity experimented with various forms of magic and developed a range of strategies to legitimize their practices. In non-Western places such as Asia, since the label of magic/superstition was imposed onto native traditions, antisuperstition campaigns often generated counterefforts to preserve what was to be obliterated. Resisting colonization, non-Western peoples were compelled to maintain their cultural identity by retrieving magic/superstition as some invaluable national essence (Veer 2013; Geraci 2018).

Magic/superstition has transformed into spirituality, a cultural zone where the secular materialism dominant in the modern West is supplemented, critiqued, and corrected by the magic/superstition of various premodern and/or non-Western traditions. This attests to Joseph Josephson-Storm's claim that the negatively loaded term magic can be resignified in a positive light, because it "was often supposed to take the best elements of religion and science together or to recover things suppressed by 'modern' science or religion" (2017, 15). Furthermore, I emphasize that this type of resignified magic is a double-edged sword. It can be deployed to serve the dominant powers—that is, the modern institutions of the state and

the market—or transform into a site of resistance where the making of the ratiocentric Man is troubled while alternative possibilities are opened up.

Considering the blurred boundaries between science and "pseudo" science, religion and "false" religion, transhumanism is more than a mere convergence of religion and science. To look for the magical variants of transhumanism, I turn to fantasy, not only fantasy of the Euro-American West but also, more significantly, fantasy literature produced in Chinese, a language of the nonwhite other. I define fantasy as the type of imaginative literature committed to and defined by reinventing magic/superstition—false, irrational thoughts and actions of the premodern and/or non-Western others.[5] Although science fiction has been favored as a field of inquiry by scholars working on transhumanism (Hayles 2011), I find its generic sibling fantasy to be a more capacious and plastic genre. Fantasy is not simply a dumping ground where alternative ontologies and epistemologies are tolerated as long as they are dismissed as materials for mindless entertainment. It saves a spot for the inscrutable to irrupt in the post-Enlightenment universe allegedly governed by the mechanistic and deterministic laws of nature. It is also a platform of thought experiments where the fixed categories of science and religion may be challenged, while magic is allowed to return from its exile and breathe new life into the world.

Before discussing fantasy texts that embody magical transhumanism, I introduce the magic of Chinese alchemy in the next section, especially its fall from a high social status into the low realm of magic/superstition. The following questions are to be addressed: What happened to Chinese alchemy in the twentieth century when the making of the political subject and the bioeconomic subject through the suppression of superstition was the primary task of China modernity? How did Chinese alchemists manage to preserve their superstitious tradition? How did the persistence of alchemy lay the foundation for the literary imagination of immortality cultivation fiction in the twenty-first century?

Chinese Alchemy and Its Modern Fate

The history of Chinese alchemy stretches over two millennia. By refining natural substances (including the human body), Chinese alchemists seek to produce a mysterious elixir that is believed to represent the authentic state of the cosmos before the unfolding of time (defined by the Chinese character *zhen*) and grant them immortality (i.e., *xian*-hood). According to traditional Chinese cosmology, the entire cosmos is infused with a numinous energy named *qi* 氣, which is neither matter nor spirit but a basic dynamic. Everything that exists is an aspect of it, in a lesser or greater state of condensation. The spontaneous movement of *qi* formed a three-staged process: First, our cosmos originated in the transformation of Nonbeing into Oneness. Second, the two complementary principles of Yin and Yang

emerged. Third, the interaction of Yin and Yang gave birth to myriad entities. It is this cosmogonic process that alchemical practices aim to reverse. The goal of alchemy is to return entities to the original state from which they have been removed.[6]

Chinese alchemy is divided into two main branches: *waidan* 外丹 (outer alchemy) and *neidan* 內丹 (inner alchemy). The documented history of outer alchemy can be traced to the second century BCE, while inner alchemy rose around the eighth century CE, if not earlier, and began to take center stage during the Song dynasty (960–1279). Both branches are practiced within the Daoist tradition. Outer alchemy focuses on the manipulation and refinement of material substances, such as minerals and metals, to produce elixirs that grant longevity and immortality. It involves cosmological speculations, laboratory experiments, and rites and ceremonies to seek help from gods in the celestial pantheon and ward off evil spirits of various sorts (Pregadio 2000). Drawing from outer alchemy, together with other Daoist practices such as breathing and meditation techniques, inner alchemy shifts its attention to the human person, where the primary ingredients of the elixir are readily available. Inner alchemy has been more popular since its inception, because it does not involve the procurement of expensive ingredients, rejects the secret initiation characteristic of ancient Daoist immortality cults, and takes advantage of the rise of print culture to make alchemical texts available to people of diverse backgrounds (Yokote 2015).

Scholars have demonstrated how Chinese alchemy, especially the outer branch, influenced similar practices in the Arabic world and then travelled to Europe around the twelfth century (Needham 1974). Around that time, the translation of Greek natural philosophy and its medieval Islamic elaborations from Arabic into Latin contributed to the flourishing of *magia naturalis* (natural magic). A type of natural magic, alchemy was preoccupied with discerning the working of the cosmos and using human knowledge to manipulate its elements. Popular among a stratum of Europe's learned elites, the "high" magic of alchemy was not only tolerated by theological authorities but also provided a foundation for the rise of modern natural science (Hanegraaff 2012, 191–206).

Conversely, in medieval and early-modern Europe, "low" magic was identified with sorcery, witchcraft, or superstition and constituted a grievous sin because it allegedly sought to communicate with the demons. While "high" magic was venerated as "ancient wisdom" during the Renaissance, "low" magic was linked to the accumulated knowledge of the pagan/racial others. In their "inferior" worldviews, the world was seen as populated by personal beings and impersonal forces, both morally ambiguous. It was also believed that the invisible reality of these beings and forces could be accessed and harnessed with the hope of addressing human needs and desires (Cameron 2010; Bailey 2013).These

magical/superstitious views, standing in contrast to the dominant synthesis of Aristotelian and Thomistic thought held by the Church and later secular materialism and scientific rationality, became the target of witch-hunting in the West.

One of the origins of "high" magic in Europe, Daoist alchemy enjoyed cultural prestige in traditional China and did not suffer marginalization until the twentieth century. The arrival of the modernist triad of science, religion, and superstition in China changed the fate of alchemical practices, which became a superstition to be eradicated. Alchemical practitioners—or, inner alchemists to be precise since inner alchemy was the dominant form in late imperial China—strove to preserve their tradition by seeking legitimacy from science and playing the games of state-building and marketization. A new phase in the history of Daoist self-cultivation began to unfold.[7] This phase is particularly intriguing because magic/superstition was implicated in the making of the Chinese modernity that avowed to eliminate it.

To elaborate, China's forced entry into the global system of nation-states and the capitalist market after a series of humiliating defeats at the hands of Western colonial powers is the background for the Chinese reception of science, religion, and superstition as *kexue* 科學, *zongjiao* 宗教, and *mixin* 迷信 (Goossaert and Palmer 2011, 50–63; Broy 2016). In the last few decades of the Qing dynasty (1644–1912) and the early years of the Republic of China (1912-), facing the military, technological, and economic superiority of the Euro-American West (and Japan after the Meiji Restoration), Chinese reformers came to view science/*kexue* as the driving engine of the modern West and eagerly promoted it to enlighten the national citizen. They also used the neologism religion/*zongjiao* to reconfigure Chinese traditions, which did not fit in with this new category characterized by the centrality of faith as manifested in hearts and deeds, the organization of believers/practitioners into church-like institutions, and the separation of religion from society and state politics. A considerable portion of the three main teachings (Confucianism, Daoism, and Buddhism) as well as various popular practices and organizations were to be removed to make Chinese traditions "legitimate" religions. The very label for what was to be removed to make these Chinese religions and facilitate China's progress toward modernity is superstition/*mixin*.

Traditional Chinese conceptualizations of the cosmos, the human body, and the nonhuman entities on the one hand and ostensibly unscientific practices such as divination, geomancy, physiognomy, and alchemy on the other hand all fell into the category of superstition (Katz 2014, 17–68). Antisuperstition campaigns were launched by the Qing, early Republican, Nationalist, and Communist governments successively (Duara 1988, 1991; Nedostup 2009; Poon 2011). However, inner alchemists continued

their practices. They rejected the label of superstition, reinterpreted alchemy in scientific terms, and repackaged it beyond the established boundaries of both traditional Chinese teachings and modern Western religion. In the first half of the twentieth century, the modern transformation of Chinese alchemy was a knee-jerk response to the urgent need to build the modern state and cultivate the national citizen when China was on the verge of becoming a Western (and Japanese) colony. In the late twentieth and early twenty-first centuries, when China shifted from socialism to neoliberalism and ascended as a new global power, the training of the capitalist subject for the marketplace became a new imperative. The modern fate of Chinese alchemy depends on the integration of magic into the making of the ratiocentric Man—that is, the political subject of the state and the bioeconomic subject of the market. In other words, the rationality of the modern Chinese subject is intertwined with the unwanted magic/superstition.

In the 1930s and 1940s, the first generation of reformers represented by Chen Yingning 陳攖寧 (1880–1969) spearheaded the scientization of inner alchemy for the sake of nation-building (Liu 2009, 2012). Chen coined the term *xianxue* 仙學 (Immortals' Learning) to name the inner alchemy techniques that he rationalized and systematized. One key feature of Immortals' Learning is the correlation of the various stages of *xian*-hood with scientific concepts such as ether, neutrons, electrons, atoms, molecules, and cells. Chen also argued that inner alchemy should focus on the cultivation of the physical body rather than the spiritual mind to improve the health and vitality of the individual, which were tied to the power and prosperity of the nation. After the founding of the People's Republic of China in 1949 by the Chinese Communist Party, Chen was appointed the head of the National Daoist Association under the new regime. Meanwhile, many inner alchemists followed the Nationalist Party and migrated to Taiwan to further pursue their reforms there (Lee 2012; Palmer 2012; Ownby 2016; Valussi 2017).

In mainland China, the ultrasecularist policy of the Communist government up to the 1980s proved disastrous for various institutional and noninstitutional religions, especially "feudal superstitions." However, inner alchemy did not die out completely. In the 1950s and early 1960s, traditional body technologies, including inner alchemy, "were reformulated and institutionalized as part of the Communist state's project of developing the health of the masses and of extracting and transforming all useful elements of traditional culture in the service of building a New China" (Palmer 2007, 5). *Qigong* 氣功 (literally, the techniques of *qi*), a secularized system of cultivation techniques and a scientific shelter for not only inner alchemy but also a whole variety of magical/superstitious practices, was thus invented and sanctioned by the state. Secularism is indeed generative of new religion or spirituality.

During the 1980s, the era of economic reform, liberalization, and religious revival, *qigong* developed into a mass movement among the Chinese people, who cultivated the *qi* in their bodies for better health, extraordinary longevity, and the acquisition of paranormal powers. At the sociopolitical level, the mass movement of *qigong* gave rise to charismatic cults such as Falungong, which challenged the legitimacy of China's political leadership in the late 1990s and was cracked down on in 1999 (Palmer 2007). At the intellectual level, the legacy of *qigong*—a conflation of magic/superstition and scientific utopianism—was carried on in immortality cultivation fiction, the writers and readers of which were mostly born in the 1970s and 1980s and grew up during the Qigong Fever. They were influenced by two figures in particular: Tian Chengyang 田誠陽 (1964–2016), a Daoist cleric, and Qian Xueseng 錢學森 (1911–2009), one of China's top scientists.

Tian, a Quanzhen cleric working for the National Daoist Association, published a series of books and articles to popularize the cultivation regimens of the Daoist tradition. He collected, edited, and commented on Chen's unpublished essays and published them under the title of *Xianxue xiangshu* 仙学详述 (*A Detailed Expository of Immortals' Learning*, 1999). He also used the more secularized term *xiulianxue* 修煉學 (Cultivation Learning) to rename Chen's Immortals' Learning, and published the two-volume *Zhonghua daojia xiulian xue* 中華道家修煉學 (*The Cultivation Learning of the Chinese Daoist School*, 1999) to introduce inner alchemy in modern scientific language to ordinary people.

Although the impact of Tian's books on cultivation practitioners in the twenty-first century is yet to be investigated and beyond the scope of this article, what I can claim is that these manuals attracted the attention of Chinese fantasy writers, who used them as source books and borrowed freely from what had been made available by Tian and his predecessors to reimagine Chinese alchemy at this new historical conjuncture. For instance, Tian presented alchemical cultivation as consisting of five stages—*zhuji lianji* 築基鍊己 (laying out the foundation to refine oneself), *lianjing huaqi* 鍊精化氣 (refining vital essences to transform *qi*), *lianqi huashen* 鍊氣化神 (refining *qi* to transform spirit), *lianshen huanxu* 鍊神還虛 (refining spirit to return to vacuity), and *lianxu hedao* 鍊虛合道 (refining vacuity to become one with the Dao)—which were later expanded into more stages in immortality cultivation novels, such as *Xiuzhen 40K*, the focus of the next section.

Another figure who paved the way for the rise of immortality cultivation fiction is Qian. He was educated at MIT and Caltech, left for China during the McCarthy era, and became the father of China's ballistic missile and space program (Feigenbaum 2003; Wang 2010). However, this scientist was attacked by his critics as a quack who dreamed about

reviving ancient magic/superstition. Qian was a maverick because he believed that *qigong* was able to bring out the paranormal potentials of the human body, called for the modernization of Traditional Chinese Medicine and ancient cultivation techniques, and urged the Chinese government to sponsor extrasensory perception and psychokinesis research to catch up with the USA and the USSR (Palmer 2007; Li and Zheng 2015). Taking a step further than the previous reformers who merely endeavored to make alchemy compatible with technoscience, Qian contended that existing science and technology were constrained by the rigid materialism of the modern West, while the retrieval of alternative ontologies and epistemologies of non-Western civilizations such as ancient China was key to triggering a new paradigm shift.

Even more pertinent to the topic of this article, Qian was a Chinese transhumanist. In 1996, in his personal correspondence with a computer scientist, he discussed the future of human-machine interaction, predicating that experiments to integrate humans and intelligent machines would continue into the mid-twenty-first century and that a new revolution would break out in the second half of the twenty-first century. Once humans and computers are fully merged, he claimed, it "is the divinization of human beings, who will become superhumans. The senses of these superhumans can reach the cosmic and the atomic levels. They are the immortals" (Tu 2007, vol. 9, 499). Echoing transhumanists such as Ray Kurzweil, Qian envisioned the evolution of humans with the help of science and technology into a superhuman species, which he named *xian*, the Daoist immortals (Li and Jiang 2019). In contrast to transhumanists of the Euro-American West, however, Qian believed that existing technoscience was not able to accomplish these transhumanist tasks. Instead, technoscience had to be revamped using some alternative theoretical foundations.

The literary consequence of Tian's cultivation manuals and Qian's unconventional science is immortality cultivation fiction, a fantasy subgenre that not only gives rational explanations to Chinese alchemy but also envisions futuristic science and technology in light of alchemical theories and methods. Inner alchemy, which has always been a textual tradition not controlled by any institution, having gone through radical transformations in the twentieth century, entered the field of popular culture and found fantasy as a new channel for its still ongoing transformation. It is also worth highlighting that, in addition to mass-market fantasy novels, transhumanist literature, starting with Kurzweil's *The Age of Spiritual Machines*, was translated into Chinese in the new millennium.[8] It is no coincidence that immortality cultivation fiction has not only replaced Western magic with Chinese alchemy but also reimagined the latter as transhumanist technology. Having contributed to, and complicated, the making of the

state's political subject, magic/superstition now is involved in training the market's bioeconomic subject.

Magical Transhumanism: *Warhammer 40K* and *Xiuzhen 40K*

Within the vast ocean of immortality cultivation fiction, I focus on *Xiuzhen 40K*, a 10-million-character novel written by Sun Junjie 孫俊傑 (1983-) under the *nom de plume* Woniu Zhenren 臥牛真人.[9] As the title indicates, the novel is inspired by *Warhammer 40K*, a tabletop strategy game created by the British company Games Workshop in 1987. Both *Warhammer 40K* and *Xiuzhen 40K* are fantasy texts hybridizing magic with science and technology. The former transports the magical world of medieval Europe as reinvented in fantasy novels/games into the distant future, explores the magical origins of technoscience, and builds a dystopian empire that mocks the utopian visions of Euro-American transhumanism. The latter Sinicizes Western magic and demythologizes Daoist alchemy, pushing forward the project of modern Chinese reformers surveyed in the previous section.

The future of humanity in the *Warhammer* universe as elaborated in numerous rule books, spin-off novels, and video games is a dystopian nightmare. "There is only war" is the motto of the game. According to the *Warhammer* lore, in the 41st millennium, the human species has colonized the Milky Way and built the Imperium of Man (or, more precisely, of the ethnoclass Man), a galaxy-spanning empire that wages war against the xenos, all nonhuman life forms in the universe (i.e., subhuman others who are outside the imperial center). In addition to the warfare between humans and various xenos, the universe is constantly threatened by the mysterious Warp, an extradimensional realm beyond our four-dimensional universe, also aptly named the Immaterium. The Warp is sheer chaos occupied by demonic entities born out of human emotions, especially negative emotions triggered by tragic situations.

Humans fear the Warp but depend on it, which is the source of magic, explained as the ability of some genetically mutated humans (and aliens) to draw powers from the Warp. These people are called the psykers, also witches or sorcerers, who are able to manipulate the material world with their minds and are thus always in danger of being controlled and ruined by the demons from the Warp. What the *Warhammer* lore has retold is the history of magic in premodern Europe. The Imperium is clearly modeled after Christendom and the modern Western civilization premised upon it, while the demonic Warp is the invisible reality posited in various magical/superstitious worldviews.

What the history of the Imperium replicates is the history of the theo-/ratiocentric Man's dependence on magic as well as disavowal of this dependency. In the Imperium, advancement in science and technology is

achieved not through the eradication of magic but the exploration of it. The Imperium needs the magical powers of the psykers and is invested in training them to be super warriors. Countless psykers serve as imperial guards or space marines. Even the Emperor himself, a quasi-Christ figure, is a psyker, the most powerful one the universe has seen. However, the Imperium is also afraid of magic, the unruly forces of the colonial others, and is determined to channel it toward serving the interests of the human species—or, the ethnoclass Man.

On the one hand, "high" magic is tolerated. Some elite figures of the Imperium carry out research into the Warp to advance science and technology, which are based on the retrieval of "ancient wisdom." On the other hand, the Imperium is deeply worried about the dangers of letting demonic possession and cultic devotion—"low" magic—run amok among its colonies. The compromise achieved after fierce debates and violent conflicts (again with precedents in Christian history) is that some magic is carefully regulated and other magic is strictly banned. The former is under the tight control of the central government; the latter, evil sorcery through which daemonic entities wreak havoc in this world, becomes the target of a permanent witch-hunt that sacrifices thousands of rebellious psykers on a daily basis, their psychic essence used as a vital energy to keep the moribund Emperor alive and fuel the war machines of the Imperium.

Scholars of fantasy have examined the genre's habits of whiteness, exposing fantasy texts' participation, whether unwitting or not, in the historical legitimation of white, European, and Christian domination (Young 2015). I argue that this modern reimagination of magic/superstition also helps to problematize those habits of whiteness. One case in point is *Warhammer 40K*, which, although undeniably a nostalgic fantasy of white supremacy, paints the transhumanist future of the ethnoclass Man in a dark, grim light. The Imperium is foregrounded as a fascist empire. It has been pointed out that *Warhammer 40K* targets the geek communities of the Euro-American West, communities dominated by white bourgeoisie males (Muñoz-Guerado and Triviño-Cabrera 2018). While transhumanism articulates the existential anxiety of the same demographic by enacting a utopia for the ethnoclass Man, *Warhammer 40K* unveils this utopia as dystopian.

Borrowing the fantastic setting of *Warhammer 40K*, *Xiuzhen 40K* reinvents the political economy of the Imperium and adds a new political entity, the Federation. The crisis the Chinese novel wrestles with is China's subsumption into global capitalism in the late twentieth and early twenty-first centuries. This explains why the Chinese Imperium of Man is dominated by the bioeconomic subject, and why the novel aspires to remake the human subject and search for an alternative transhumanist future. First of all, it refashions the psykers and the Warp. In this novel, the future human race is led by Daoist alchemists. Unlike the psykers who draw their powers

from the Warp, the Chinese cultivators practice alchemy to refine the *qi* of the cosmos, which is not divided into the material and the immaterial.

Not associated with demonic possession, alchemical cultivation is an honorable practice in the Chinese Imperium. However, just as not all humans (or aliens) are psykers, not all sentient beings are capable of cultivation. Moreover, there are various ranks of the cultivators depending on the particular stages of cultivation they have achieved. The Chinese Imperium is a hierarchical society governed by the top-ranking cultivators, who exploit the labor of lower rankers, noncultivators, and colonized aliens to excavate and process the numinous energy of the entire universe. The Imperium is a global (or, galactic) empire of neoliberal capitalism built upon colonial expansions in the past. Correspondingly, the Warp, no longer the Immaterium, is the final frontier of the Imperium's colonial expansion.

In *Xiuzhen 40K*, scientization of alchemy and neoliberalization of the Imperium go hand in hand. The *qi* of traditional alchemy has been reimagined as a fossil-like energy stored in the precious *lingshi* 靈石 (numinous stones) that is mined and cut into regular pieces to power the making of magical objects and paranormal bodies. Numinous stones also serve as the currency of the cultivation world. They are the fossil capital of this marketplace, the combination of fossil fuels on which machines of production run and the capital that seeks miraculous self-expansion by absorbing the human and nonhuman labor of cultivation. Cultivators of the Imperium, in this light, are the self-enterprising "human capital" (Feher 2009)—the latest model of the bioeconomic Man—aspiring to integrate themselves into the Dao of capitalism.

Outer alchemy is revived in the fictional space. There is another *qi* to be cultivated, not the *qi*-energy but the *qi* 器, material tools in outer alchemy or technological gadgets as the extension of the body. The cultivators pursue *lianqi* 煉器 (tool refinement) to improve the efficacy of their equipment such as armor, weaponry, and other magical objects ranging from personal computers to space fleets. Alchemical cultivators transform into scientists and engineers, who receive their training at cultivation schools (research universities) and then work for cultivation sects (capitalist corporations). Researching the physical body to release its limitless potentials, they write heavenly scripts (source codes), develop golden elixirs (pharmaceuticals), and build elaborate automatic systems that are integrated into the human body.

Inner alchemy is still the central practice. The radical enhancement pursued by the human capital consists of seven stages: *lianqi* 煉氣 (qi-refinement), *zhuji* 築基 (foundation-building), *jiedan* 結丹 (elixir-formation), *yuanying* 元嬰 (the primordial embryo), *huashen* 化神 (spirit-transformation), *fenshen* 分神 (spirit-differentiation), and *heti* 合體 (reintegration with the Dao). These stages bear influences of both Tian's five stages and Qian's vision of a human-machine mergence. In the first stage,

the cultivator learns to refine the cosmic *qi* in her body. The foundation to be built is an artificial neurological network for the better circulation of *qi*. On this foundation, an elixir will be formed, which is not the magical potion in ancient alchemy but a new self-consciousness running on the refined *qi*. When this consciousness becomes mature, the cultivator arrives at the stage of the primordial embryo, her second birth as a new numinous being, which resembles the uploaded mind in existing transhumanist imaginaries. Once this new spirit self is born, it can exist independently of the mortal body and generate its own virtual reality. On the sixth and penultimate level, the spirit self will be able to manipulate not only simulated environments but also the physical reality in which it is located. Eventually, the cultivator will lose herself in the cosmic Dao and become truly immortal.

Most intriguingly, the Chinese Imperium is divided into seven ranks corresponding to the seven stages described above. Located at the bottom is a vast population of noncultivators, who, as heavily exploited proletariats, are not able to change their fate. Ascension to the upper echelons is the goal cultivators strive for. However, the majority of them cannot go beyond the first three stages to create a new self—that is, a capitalist self. The novel enacts the fourth-level cultivators as entrepreneurs. Higher up, the Imperium is governed by a small number of cultivators at the fifth and sixth levels, who serve as governmental officials and corporate leaders—the political subject and the bioeconomic subject. Although the seventh level remains a mystery, it is easy to assume that the ultimate Dao is the Dao of capitalism.

What the novel makes explicit is the fact that not everyone can become the self-governing and self-enterprising individual. To control the subhuman, others sacrificed in the ascent of the ethnoclass Man, the Imperium stages an annual hunger game and broadcasts the cut-throat competition of the game across the universe to entertain and frighten its human and alien subjects. Here, the Chinese text borrows from Suzanne Collins' *The Hunger Games* series (2008–2010), in which Panem, a dystopian regime located in today's America, invents the hunger games in which young people fight against one another until the last one survives. Immortality cultivation is the hunger game in the Chinese Imperium, which is no less dark than its *Warhammer* original or Collins' Panem. However, the real focus of the novel is not only the Imperium but also the Federation, a new political organization that endeavors to regulate human enhancement.

The novel introduces an interesting distinction between the *xiuxian* practice of the Imperium and the *xiuzhe*n practice of the Federation. At the beginning of this article, I explained the characters *xian* and *zhen*. The former can be translated as ascendency; the latter, authenticity. The author interprets ascendency as the endless climbing of the neoliberal subject, while authenticity is linked to the emergence of a new

subjectivity and its resistance against capitalist alienation. While the Imperium is a neoliberal empire of *xiuxian*, the Federation is a new polity formed by several planets that have gone rogue to pursue *xiuzhen*—the quest for an uncorrupted human heart or a perfect society yet to come. The Federation aspires to regulate immortality cultivation—or, human enhancement pursued through the merging of ancient alchemy and modern science and technology—with state power. It builds a public cultivation/education system open to all, promotes cooperation rather than competition, and writes into its constitution the social obligations of accomplished cultivators to care for the less powerful and disenfranchised. Authenticity is defined as equality, justice, and the collective good.

At the beginning of the novel, the Federation is depicted as a nation-state, within the geographical (or, cosmographical) boundaries of which the cultivators and noncultivators have momentarily overcome their class divide. The cultivators protect the noncultivators against the aggressions of the demons from the Warp, while the noncultivators provide their labor to sustain the Federation's military excursions into the demonic territories. As we have seen in modern Chinese history, the building of a strong nation-state was seen as a necessary means to fight against threats from the outside. This vision has duly made its way into immortality cultivation fiction. Later in *Xiuzhen 40K*; however, it is discovered that the demons are genetically mutated humans (whose *qi* is more condensed than the ordinary humans) seeking asylum in the Warp, the uncolonized section of the universe. The seemingly utopian Federation is still no different from the Imperium if the former continues to treat the Warp as its colony. The authenticity-cultivator cannot be the Chinese inflection of the ethnoclass Man that triumphs over the subhuman others. Expectedly, the authenticity-cultivators decide to invite the demons of the Warp into the Federation and together with them declare war against the Imperium.

It is worth adding that the authenticity-cultivators form another alliance with artificial intelligence, a noncarbon-based life form. While the ethnoclass Man of the Imperium fights against the xenos in the *Warhammer* universe, the subhuman and superhuman others (demons and computers) are both welcome into the Federation. Rebelling against the Imperium, the Federation also clashes with some supercomputers that brainwash humans and turn them into fleshy robots programmed to perform various tasks until they drop dead. However, what is evil is not technology per se but the capitalist reduction of the proletarians into docile machines. The society run by these supercomputers is a more advanced version of the Imperium, as the transformation of humans into fixed capital is a far more efficient means of exploitation than the self-cultivation of the human capital. What this story helps to reiterate is the point that the authenticity-cultivator tries to break away from galactic capitalism. She does not seek ascendency by exploiting and excluding the nonhuman others. Instead, the subject of

authenticity-cultivation is to emerge from the alienated classes, races, and species.

Decolonizing Transhumanism: From Hyperhumanism to Posthumanism

The dystopian Imperium in both *Warhammer 40K* and *Xiuzhen 40K* and the utopian Federation in the latter are the two possible futures awaiting China and the entire world. Both the ascendency-cultivation of the Imperium and the authenticity-cultivation of the Federation are magical practices. The former implements the political and bioeconomic subject of the modern world; the latter challenges the dominant political economy and enacts an alternative human subject. What the Chinese novel sheds light on are the two trajectories of transhumanism: the hyperhuman that aims to reassert the beleaguered white supremacy and the posthuman born out of the struggle of the nonwhite others.

The hyperhuman path is the libertarian trend of transhumanism that resonates perfectly with neoliberalism. The entrepreneurial freedom of the individual "capacity of strategic calculation, planning, and design of a life project" is the central agenda of both libertarian transhumanism and neoliberalism, which see better societies as the automatic and aggregate result of individual enhancements in the ideal arena of the market, the ultimate principle of economic organization, and key for the management of social and political affairs (Arnaldi 2012, 96). In this light, the ascendency-cultivator is the hyperhuman/neoliberal subject in libertarian transhumanism.

The hyperhuman/neoliberal path turns out deeply worrisome for many. To assuage the fears caused by the militant libertarians who advocate pure capitalism and unchecked competition, opponents and proponents of transhumanism have proposed three positions: to abandon transhumanism for the sake of liberal democracy, to control transhumanism with liberal democracy, or to reconstruct transhumanism beyond the limits of liberal democracy. As opponents of transhumanism, bioconservatives such as Francis Fukuyama attacked it as "the most dangerous idea" (2003). Although a supporter of neoliberal economics, Fukuyama worried about the totalizing logic of the market and saw human beings as endowed with some mysterious essence. For him, humans are first and foremost political animals rather than *homo economicus*. These political animals belong to a broader human polity—the best of which is liberal democracy—and rely on it to pursue self-fulfillment. Transhumanism undermines liberal democracy because it makes mutual recognition impossible by creating the bifurcation of a class of ruling masters and a population of underdogs. To avoid the rise of the dystopian Imperium, transhumanism must be abandoned.

Advocating the second position, politically progressive transhumanists represented by Hughes (2004) emphasized the need to regulate individualistic enhancement projects, build welfare programs for the unenhanced, encourage empathy and compassion, and gear transhumanism toward minimizing inequality and enhancing the public good, which is not to be sacrificed in the pursuit of individual liberty. Hughes called his democratically minded enhancement-seeker "citizen cyborg," whose Chinese counterpart is none other than the authenticity-cultivator of the Federation. Authenticity-cultivation is a form of democratic transhumanism. However, we are to be reminded that in *Xiuzhen 40K* the liberal state is still an integral part of the colonial empire. In this regard, Lowe (2015) has demonstrated that the freedom of the modern Western human by liberal forms was predicated upon the dispossession of the Native Americans and the transcontinental movement of African slaves and Asian coolies from the East Indies and China in the late eighteenth and early nineteenth century.

While these colonial others are missing from Hughes's ideal democracy, they appear in *Xiuzhen 40K* as the Federation located on the margins of the Imperium (not unlike China, which used to be a semicolony) as well as the demons in the Warp, whose alliance with the Federation is a crucial step toward authenticity. Would it be possible to break out of the boundaries of liberalism while sticking to enhancement like the citizen cyborg does? Taking up this question, *Xiuzhen 40K* offers the third position in the Federation, not a nation-state where "equality is conditional, and dignity limited by international boundaries" (Asad 2018, 36), but a decolonial alliance of the various others that the novel brings together. Although the novel falls short of elaborating on the inclusion process or how the new Federation is organized, it does open up the possibility of decolonizing transhumanism and pushing it in the posthuman direction.

The term posthuman is rather confusing, which may refer to transcendence over the biological given by the means of science and technology or transcendence over a particular philosophical-cultural configuration of the human. Scholars have made a distinction between the technoscientific posthuman and the philosophical-cultural posthuman (Tirosh-Samuelson 2012; Ferrando 2013, 2019). However, these forms of posthumanism both conceive of human existence as a work in progress rather than that which is determined by some immutable essence. They both grapple with the impact made by the advancement of science and technology on the human body. That is to say, philosophical-cultural posthumanism, like its technoscientific other, embraces science and technology, while technoscientific posthumanism is also premised upon certain philosophical-cultural assumptions.

The real difference between the two is that what is called technoscientific posthumanism continues to celebrate the human, or, the ratiocentric

ethnoclass Man, while the agenda of philosophical-cultural posthumanism is to debunk this problematic construct. This is why I propose to use the hyperhuman-posthuman distinction instead. Transhumanism is a transitory stage leading toward either the hyperhuman or the posthuman condition. Investigating the obscured origins and emptied contexts of the ethnoclass Man, posthumanists strive to bring about "an indeterminate, irreducibly relational, and endlessly adaptive figure whose intelligence and agency are not simply possessed or controlled by the individual or his will, but always already distributed throughout complex networks that exceed, as even as they constitute, any individual" (Carlson 2009, 15).[10] This posthuman subject is then endowed with the task of building "a more inclusive, just, and egalitarian world in which humans have less control, the fallibility of human knowledge is confessed, and oppressive cultural boundaries are uplifted" (Tirosh-Samuelson 2012, 713).

What I have argued in this article is that transhumanism, currently dominated by a hyperhuman trend in the Euro-American West, may also travel along the route of posthumanism aimed at transcending the antagonistic relationship between a particular philosophical-cultural construct of the human and its suppressed others. And we definitely need some magic to transform the hyperhuman ethnoclass Man (of the two Imperiums) into the posthuman subject (of the Federation). Moreover, we need to fight the magic of hyperhumanism (ascendency-cultivation) with the magic of posthumanism (authenticity-cultivation). During this fight, religion is an indispensable repository of resources. By religion I mean the Christian tradition, non-Christian religions, and what was once dumped into the trashy field of magic/superstition.

What I call for is not a simple condemnation of Christian orthodoxy and valorization of the stigmatized magic/superstition. Christian theology can also serve as a meta-epistemic location from which to critique worldly powers such as the nation-state and the capitalist market. The repressed magic/superstition may have been integrated into the vortex of capitalist expansion, as we have seen in the story of ascendency-cultivation. What the cultivation of the posthuman subject calls for is the dialog and collaboration across the religious, racial, and cultural divides and the alliance of the compartmentalized religion, science, and magic/superstition.

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"The Nuts and Bolts of Transformation: Science Fiction's Imagined Technologies and the Civic Imagination."

Notes

1. Robert Geraci has studied transhumanism in India, analyzing science fiction literature and film produced in English. However, he is not able to address similar texts published in Indian languages (2018, 131–64). Transhumanism in Japanese anime has also attracted scholarly attention. See Shalet (2018).
2. Robert Campany has suggested that we translate the Chinese character *xian* as transcendent(s)/ascendant(s) rather than immortal(s), because *xian*-hood was perceived as consisting of distinct levels and not a once-and-for-all immortality. The "immortals" are *xian*-arts practitioners who have acquired paranormal powers, ascended to some higher stages of existence, and, in some cases, taken a post in the celestial bureaucracy (Campany 2009, p. xvii). With regard to how to translate *zhen*, which appears in both *xiuzhen* and Quanzhen, the latter a major branch of Daoism, Louis Komjathy surveys the debate among scholars of Chinese religions, who either prefer perfection, the completion of the cultivation process, or authenticity, an original, uncorrupted state (2007, 10–11).
3. For a summary of the genealogies of both terms, see Hanegraaff (2012, 156–77). For scholarship on magic and superstition in antiquity, see Graf (1997) and Martin (2009). In the medieval period, see Kieckhefer (1989), Cameron (2010), and Bailey (2013).
4. For the discursive making of magic/superstition in the modern world and the persistence of various magical/superstitious ideas and practices despite secularization projects, see Styers (2004), Bever and Styers (2017), Josephson-Storm (2017).
5. Although it is scholarly consensus that fantasy, a self-conscious literary mode that emerged in post-Enlightenment Europe, is endowed with the task of fabricating the impossible (Mendlesohn and James 2009; James and Mendlesohn 2012), I propose that we avoid making epistemological statements such as determining what is possible or impossible for two reasons. First, what delineates the boundaries of the possible is scientific rationality, which was established as the dominant epistemological paradigm in the modern West. However, there were and still are alternative epistemologies, ontologies, and cosmologies. Second, when committed to differentiating between, or even straddling, the possible and the impossible, we run the risk of losing sight of the affective dimension of fantasy's fabrication.
6. For an introduction to the views shared by Daoism and traditional Chinese cosmology and anthropology, see Schipper and Giradot (1993), Robinet and Brooks (1997). For how Chinese formulations of cosmogony shaped the worldview of alchemy and inspired its main practices, see Pregadio (2000).
7. According to Lee Fengmao, a scholar of Daoism, there are three phases in the history of Daoist self-cultivation (2012). First, during the Wei-Jin (265–420) and the Southern and Northern Dynasties (420–589), practitioners began to cultivate both the mind and the body. Second, during the Jin-Yuan period (1123–1368), meditation techniques from Chan Buddhism inspired efforts to systematize and innovate the inner alchemy tradition. Third, the arrival of modern Western science in the twentieth century initiated a new phase that is still unfolding.
8. For instance, the Chinese translation of Kurzweil's *The Age of Spiritual Machines* was published in 2002; *The Singularity Is Near: When Humans Transcend Biology*, 2011. Bostrom's *Superintelligence: Paths, Dangers, Strategies* was translated into Chinese in 2015.
9. The novel was serialized at qidian.com—a Chinese literary platform specializing in popular genre fictions—from March 16, 2015 to July 4, 2018, and can be accessed at https://book.qidian.com/info/3439785.
10. More specifically, Rosi Braidotti sees the posthuman subject as "materialist and vitalist, embodied and embedded—it is firmly located somewhere, according to the radical immanence of the politics of location" (2013, 188). On the other end of the spectrum, Katherine Hayles explains the posthuman as meaning "there are no essential differences or absolute demarcation between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals" (1999, 3). Either materialist or informational, the posthuman subject is no longer the autonomous individual in quest of self-fulfillment.

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