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# Transhumanism in China

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One Chinese version of the emperor and the chessboard involves the farmer Pong Lo. Pong is offered any reward he wants, save the hand of the emperor's daughter, which he really wants. So he requests one grain of rice, to be doubled daily for a hundred days.<sup>1</sup> The emperor quickly agrees. Through the magic of mathematics, it soon becomes apparent that the farmer is due more riches than the empire can ever repay.<sup>2</sup>

This kind exponential growth powers the transhumanism movement. Not everyone buys into this logic. William Grassie, executive director of the Metanexus Institute, contends transhumanism is based on the logic of exponential growth. This fallacy assumes that an event or phenomenon can grow exponentially forever.<sup>3</sup> In the end, he says, infinite growth is nothing but a giant Ponzi scheme.<sup>4</sup>

Grassie also recognizes that transhumanists do more than play with tech toys or make make-believe predictions. They are making serious philosophical claims concerning the nature of a post-singularity world. The singularity is the point after which machines exceed human intelligence. In such a landscape, what will a positive outcome look like? These are ultimately questions of value. Yet Grassie contends that technology itself is values-neutral. There is no known method of inculcating values *into* technology. Current human society, in contrast, is "inculcated" by religions, however residual or distasteful they may be to some. These religious currents may be formal religions or simply secular efforts. Belief in the singularity can be seen as just such a secular religion, one that inculcates values.<sup>5</sup>

Transhumanism wears many definitions. For the philosopher Nick Bostrom it is "the study of

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1. Helena Clare Pittman, *A Grain of Rice* (Yearling, 1986).

2. The same principle is illustrated in the story of one grain of wheat and a chessboard, first written by Ibn Khallikan in 1256. See Clifford A. Pickover (2009), *The Math Book: From Pythagoras to the 57th Dimension*, New York : Sterling, 2009), p. 102; Macdonell, A. A. (2011-03-15). "Art. XIII.—The Origin and Early History of Chess". *Journal of the Royal Asiatic Society of Great Britain & Ireland*. 30 (01): 117–141. doi:10.1017/S0035869X00146246. Retrieved 2015-04-05.

Helena Clare Pittman, *A Grain of Rice* (Yearling, 1986).

3. Grassie., 256.

4. Grassie, 261.

5. Grassie, 264.

the ramifications, promises and potential dangers of the use of science, technology, creativity, and other means to overcome fundamental human limitations.”<sup>6</sup> Once again the question of values lurks in the background

As an organized movement transhumanism could be dated from the founding of the World Transhumanist Association in 1998. But transhumanism is more than a single group. It is an international network of political parties; it is also a philosophical movement; it is a burgeoning publishing category; it is the animating vision for a range of industries from cryonics to robotics; and it is the power behind a range of research projects, from gene therapies to virtual reality to Google’s anti-aging initiative Calico. All these efforts, as well as the swirling clouds of discourse that surround them, are meant to enhance human capabilities, to realize, in effect, a true new age.

This paper looks at transhumanism as more than a movement, but as a new religion. We look at China and ask how deeply transhumanism’s roots extend into China’s soil. We use the model of new religions to investigate how such a belief system may fare in contemporary China.

## The Roots of Transhumanism

What are those roots? Transhumanism is the most recent label given to a strand of Western thought that can be dated back at least to Dante’s use of the word *transhumanarc* in 1312.<sup>7</sup> By progressing in stages through level halls, the poet arrives at the Empyrean, a place of pure light in which human flesh becomes celestial flesh. Finally face-to-face with God, he is enveloped and aligned with God’s love. The *transhumanarc* was the very goal of spiritual progress.

It was the British biologist Julian Huxley who popularized the word transhumanism. He first used it, in 1957, to mean the transformation of humans: “...man remaining man, but transcending himself, by realizing new possibilities of and for his human nature.”<sup>8</sup> Huxley aimed to promote a world culture with one religion. Perhaps naively, he hoped the UN would be the essential first step. This kind of optimism coupled with deep scientific knowledge still animates transhumanism.

## Transhumanism: Key Concepts

The mathematician-physicist John von Neumann also foresaw a transhumanist future. He said that “the every-accelerating progress of technology...gives the appearance of approaching some essential singularity in the history of the race beyond which human beings, as we know them, could not continue.”<sup>9</sup> In this quote, itself a paraphrase from the mathematician Stanislaw Ulam, von

6. Ibid.

7. The Divine Comedy, Paradiso, Canto 1.

8. Chris Renwick, “New Bottles for New Wine: Julian Huxley, biology and sociology in Britain.” *The Sociological Review*, April 21, 2016, <https://doi.org/10.1002/2059-7932.12018>.

9. Quoted in Ray Kurzweil, *The Singularity is Near: When Humans Transcend Biology* (London, New York, Toronto: Penguin, 2005.), 10.

Newmann makes the two points we have already encountered. First, von Neumann underlines the importance of the acceleration in the *pace* of technological change. Secondly, he sees these changes intersecting at a single point in time, the singularity.

*Acceleration*, clearly, is one of a bundle of core concepts that make up transhumanism. Others include:

### ***Progress***

Max More notes that transhumanism is not utopian. Far from seeking paradise, it is concerned instead with continual improvement. There is no single desired future to be sought, there is simply the desire to move toward better futures.<sup>10</sup>

At the same time, transhumanists strongly reject the idea that we should *not* attempt to change the human condition. Any aspect of current reality, including, “human nature,” can be improved. Transhumanism shares this goal with Enlightenment humanism.<sup>11</sup>

### ***Co-evolution***

The transhumanist declaration states “...we will co-evolve with the products of our minds, integrating with them, finally integrating our intelligent technology into ourselves in a posthuman synthesis, amplifying our abilities and extending our freedom.”<sup>12</sup> This co-evolution will result in morphological freedom, the ability to alter and improve the body.<sup>13</sup>

### ***Inevitability***

The singularity, as mentioned above, is an event horizon. While it is an eventuality we can’t fully grasp now, make no mistake, it is coming and cannot be held off.

Ray Kurzweil, one of the leading lights in transhumanism, posits six epochs in human evolution:

1. Epoch of physics and chemistry
2. Biology (DNA)
3. Brains (neural patterns)
4. Technology
5. Merger of technology and human intelligence
6. The Universe awakens

The singularity occurs at the start of Epoch 5. That’s where we sit today. Kurzweil estimates AI will equal human intelligence by the late 2020s, and surpass human intelligence by 2045. Simply put, once AI surpasses our intelligence, our standing in and experience of the world will alter.

10. Max More, “True Transhumanism: A Reply to Don Ihde.” In William Grassie and Gregory R. Hansell, eds. *Transhumanism and Its Critics* (Philadelphia: Metanexus Institute, 2011), 136-146, p. 139.

11. More, 140.

12. More, 142.

13. More, 143.

## ***Intelligent Destiny***

Of course all this doesn't have to mean we are destined to live lives as pets. We will also be smarter than we are today—as long as we chose to be enhanced.<sup>14</sup> This is because biological intelligence is fixed, while machine intelligence is unlimited. Biological processes, based on carbon, have inherent limitations. (“DNA-based intelligence,” says Kurzweil, “is just so very slow and limited.”)<sup>15</sup> Non-biological systems will have no such limitations. They will be able to redesign themselves, to multiply, to perform repeated tasks, and to communicate at high speeds. Intelligence will spread throughout the universe like a dust cloud. The cosmic scale of this statement is breathtaking; this looks and sounds like an article of faith.<sup>16</sup>

## ***Aging***

Eventually human aging will be easily reversed, using nanotechnology.<sup>17</sup> Before that we have cryogenics, which today can preserve your body and/or brain until it can be revived in the future.

## ***AI***

AI will enhance all human abilities, including even emotional intelligence.<sup>18</sup> In the current, initial stage, AI serves to extend our existing abilities. But eventually humans and machines will merge. We have already merged, to some extent, if you look at our civilization as a whole. And we need not be alienated after merging with AI. Kurzweil insists this intelligence will continue to be human, even if it ceases to be biological.<sup>19</sup> This will be so because it will be based on the design of the human brain. Any felt sense of kinship or identification, however, will be one gained solely through this design legacy.

Again, we are told we need not worry about losing our “essential humanity.” “[N]othing will be lost,” says Kurzweil’s robot intelligence George, speaking from the year 2048. In other words concern about losing something essential to our humanity—our habits, our perspectives, our proclivities, our very natures—is unnecessary. Everything will be there when it’s needed.

Otherwise, it will be recycled.<sup>20</sup>

## **Realms of Transhumanism**

These concepts percolate inside the transhumanist soup, mixing there with associated trends, ideas, corporate interests and other chunky entities. The bioethicist Russel Blackford insists that

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14. Kurzweil, 24.

15. Kurzweil, 32.

16. Kurtzweil, 21.

17. Kurzweil, 28..

18. Kurzweil, 29.

19. Kurzweil, 30.

20. Kurzweil, 33.

such breadth and ferment is a sign of intellectual health.<sup>21</sup> But at times this breadth becomes overwhelming. To make sense of this we can outline the important nodes, the realms in which transhumanism thrives.

The starting point is Nick Bostrom's list of seven categories, taken from his essay "Transhumanist Values."<sup>22</sup> Hank Pellissier adds two more to this list, to make seven. I will then compare this list with another, subjective list of topics drawn up after attending the recent HumanityPlus conference in Beijing. The two lists overlap in only one category, David Pearce's Hedonistic Imperative.

### ***Extropianism***

Max More, another leading light in the movement, wrote *Principles of Extropy* in 1988 and so launched the extropianism movement. Extropianism means proactive evolution. True optimists, extropians believe in taking evolution by the hand, much as breeders and horticulturists have done for centuries. But unlike these pioneers extropians use all the technologies available. Extropianism is the immediate predecessor to transhumanism.

### ***Singularitarianism***

As noted, machine intelligence is set to surpass human intelligence. Accepting this as an inevitability means belief in a sudden event which will occur in the medium future. Ray Kurzweil and Vernor Vinge are the best known singularians, as is the Machine Intelligence Research Institute at Berkeley.

### ***The Hedonistic Imperative***

The philosopher David Pearce fuses Transhumanism with "hedonistic utilitarianism." Pearce is a strident proponent of veganism and, in principle, the abolition of all suffering for sentient beings. This goal is possible in our age through technological advances in nanotechnology and genetic engineering.

### ***Democratic Transhumanism***

This sub-movement mixes transhumanism with democratic decision-making. Democratic transhumanists want equal access to enhancement technologies for all. They support a basic income policy. These values are promoted by the Institute for Ethics and Emerging Technologies.

### ***Survivalist Transhumanism***

This strand focuses on longevity—in transhumanist terms, "radical life extension." As Jethro

21. Blackford, 177.

22. Bostrom's list is summarized in Hank Pellissier, "Transhumanism: there are [at least] ten different philosophical categories; which one(s) are you?" On Institute for Ethics and Emerging Technologies website, July 8, 2015, at <https://ieet.org/index.php/IEET2/more/pellissier20150708>.

Knight says in Zoltan Istvan's book *The Transhumanist Wager* (2013), "death must be conquered."

### ***Libertarian Transhumanism***

Libertarian Transhumanists sees enhanced human capacities as an issue of civil liberty. Government should not be involved in any form. Peter Thiel, the Silicon Valley venture capitalist, and Ronald Bailey of *Reason* magazine are prime proponents.

### ***Religious Transhumanism***

As mentioned already, transhumanist concepts are found in religious thinking.<sup>23</sup> And this line of theologically-tinged thought continues with the Mormon Transhumanist Association (2006) and the Christian Transhumanist Association (2013). Both groups strongly deny there is any incompatibility between transhumanism and Christianity. Both have adopted the Transhumanist Declaration. The MTA affirms that scientific knowledge and technological power are "ordained of God."<sup>24</sup> The CTA in their own statement of affirmation focuses on the transcendent, the coherence of mental, physical and spiritual aspects of humanity, and improvement in the world.<sup>25</sup>

Perhaps inevitably, stand-alone transhumanist religions are appearing. The Terasem Movement Transreligion began in 2004. The Turing Church began in 2010.<sup>26</sup>

## **Encountered in the Flesh: Beijing Humanity+**

Most of these currents were present at the Beijing conference, in one form or another. The conference was held in the Ullens Center for Contemporary Art in the 798 Art District on the outskirts of Beijing, one of the vaguely iconoclastic neighborhoods that can flourish in today's China. Perhaps as a result, the conference had an eclectic and counter-cultural atmosphere not reflected by this list of dry academic categories presented above. The attendees appeared to be mainly students full of curiosity. Speakers came from a wide variety of backgrounds that both confirmed and tested the ideas outlined above.

### ***AI***

Kent Saitlik of Mozi.ai, a Beijing-based biotech firm, focused on the revolutionary nature of AI. It will, he said, be a technical development that upends our idea of the very category of human. We cannot know the full extent of this change. Saitlik, like all transhumanist speakers, accepts that the singularity is a certainty.

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23. According the Lincoln Cannon, Nikolai Fyodorov advocated "the technological resurrection of our ancestors." The Catholic thinker Pierre Teilhard de Chardin also advocated the merger of technology and the Divine.

24. "Affirmation." Mormon Transhumanist Association website, at <https://transfigurism.org>.

25. "Who We Are." Christian Transhumanist Association website, <https://www.christiantranshumanism.org>.

26. Lincoln Cannon. "A Brief History of Religious Transhumansim," on Lincoln Cannon website, Nov. 29, 2017, at <https://lincoln.metacannon.net/2017/11/a-brief-history-of-religious.html>.

Zaitlik breaks down AI into four types, or calibers. First is ANI, artificial narrow intelligence. Your phones have this type, as does Google's search engine. The AI does one thing and does it well—so well that we are already hooked on our devices.

Caliber two is AGI, Artificial General Intelligence. Think *Exmachina*. To get there we need the AI to have become smarter and have massively increased computational power. The power side has already been achieved—the fastest computer in the world, China's Sunway TaijuLinge, has 93 quadrillion cps (calculations per second); human brains have a mere 10 quadrillion. The smartness side of the equation is a focus of intense research. General AI can interact autonomously. It learns on its own, through experience, like humans.

Caliber three will be Integrative Cognitive Architecture. Here the AI will match the human mind's ability to process information in stages. Using separate centers in the brain, the human mind can recognize three million patterns. Each center uses a series of algorithms, and these in turn trigger algorithms that communicate between centers. This advanced coordination is what we mean by human intelligence—it is much more than raw processing power. This form involves deep learning in which the whole organism is involved.

Caliber four will see artificial Super Intelligence that is so much more advanced than ours that we will literally be unable to comprehend its functioning. At that stage we will be faced with a few stark options:

- Live in harmony with the new technology, but separately
- Merge with the new technology, creating a hybrid form of humanity
- Live lives as kept animals, like cattle or pets, or worse

So, take your pick, but know this: everything will change.

### ***Transhumanism is more than simple AI: Genetic Modification***

Yet as we have established Transhumanism is a broad umbrella of jumbled forces and concerns. Ben Goertzel of singularly.net noted that achieving transhumanism's goal of "becoming better than well" means humanity will move from an age in which avoiding suffering is the primary concern to one in which other states of being are more important. This will require body modification.

The genome for domesticated rice was decoded in 2002. Today NIH funds chimera research in which animal and human DNA are combined. In addition an entirely new technology has entered the field from out of the blue, CRISPER CAS9. This allows us to alter the DNA of both the unborn and the living. Regardless of FDA approval, these techniques will be adopted quickly for the mass market. So the transhumanist future includes superhumans, pumped up by biotech research, just as much as it does smart machines.

### ***Blockchain***

Perhaps surprisingly, Blockchain was a major theme at the conference. The two realms are now joined at the hip. Many of the Transhumanism disciplines are integrating Blockchain into their

practices. Mozi.ai is designing a platform to unite all biotech research databases, using Blockchain. Ben Goertzel recommends using Blockchain as the underlying protocol layer for APIs.

### ***Life Capital and Aging***

For Natasha Vita-More transhumanism refers not to *transcending* our current state. Instead it means we are *transitional* humans. She sees transhumanism as a narrative that updates the human viewpoint. “Transhumanism” she noted in her talk, “denies the myth that the old must die to make way for the young.” She forecasts the use of DNA techniques paired with AI to implement radical adjustments needed as societies age and dementia increases. Transhumanism is a way of privileging the life capital accumulated over time by the aged. All humans, not only the aged, need to update knowledge. The alternative is a dumbed-down society even more dependent on care-takers like AI.

Vita-More’s husband, Max More, is president of Alcor, and the topic of cyronics was there in the background of Vita-More’s discussion of aging. The Alcor Life Extension Association 生命研究基金会 was founded in 1972 to offer cryogenic preservation (低温保存生命技术). This involves the preservation of a person’s body immediately upon death. The assumption behind such a service is that scientific advances will allow for regeneration of the individual at some point in the future. Alcor represents a strong belief in a new paradigm of salvation through scientific advances.

The first Alcor patient from China was Du Hong, a writer who died in 2015 at age 61. She was Alcor’s 138<sup>th</sup> patient.

### ***A Comprehensive Model of the Brain***

In parallel with AI development researchers in China are racing to develop a complete model of the human mind. The basic building blocks are spiking neurons. Zeng Yi of harmonious-AI.org states that a mathematical modeling of human neural systems concluded that 15% of neurons are *inhibitor* neurons, not *excitation* neurons. Humans could possibly reduce the use of inhibitor pathways and learn to think faster.

### ***Contra the Hedonist Treadmill***

One of the cofounders of HumanityPlus, David Pearce, notes that Transhumanism is simply the effort “to find technical solutions to ethical problems.” Pearce notes that humans are now on the “hedonist treadmill,” channeling our energies toward seeking out comfort. His focus is on the elimination of *all* pain, something spelled out in the transhumanist manifesto. Another way of expressing a life without pain is “super happiness;” or, in his words, “intelligent bliss.”

Suffering includes psychological, chronic and physical pain, as well as psychological disappointment. And it applies to non-human as well as human beings. Pearce is against killing animals as a source of meat. The range of suffering, then, is truly universal. He states domestic pets are to be weaned off hunting. And wild carnivore are to be redirected not to hunt for food.

Pearce’s arguments, which go well beyond veganism, are easily the most radical ideas promoted

at the conference. Pearce envisions the complete reprogramming of the entire biosphere. He is confident we can use SCRISPER techniques to cut out genes for pain, and to build intelligent bliss.

### ***Techno-optimism and Apocalyptic Visions***

Most speakers expressed a typical confidence in technology. Resources are not humanity's problem. The problem is simply finding the *right* technology. However many talks also had an apocalyptic tinge. What is at stake in transhumanism is nothing less than humanity's future. The imperative is to use technology to solve all of humanity's problems. In this way humanity will control its own fate. This is not utopian. Instead it is a transitional necessity. The alternative is more selfish activity, conflict and wars.

### **Criticisms of Transhumanism**

The movement is criticized from many sides. The very breadth of this criticism reflects its relevancy. Yet transhumanism continues to gain traction. Topics transhumanists have debated for years are now debated in the broad media. These include the possibility of mass unemployment due to AI; the potential to extend life; and the perennial boogey-man, the day computers take over everything and render us inconsequential.

These issues make up the core focus of Yuval Noah Harari's recent bestsellers, *Homo Deus: A Brief History of Tomorrow* (2016), and *21 Lessons for the 21st Century* (2018). Harari is hardly a critic. *Homo Deus* explores the implications of progress in three areas that have bedeviled humanity: bliss (freedom from pain), immortality (extended lifespan), and enhanced, God-like superpowers.

A long string of writers disagree with transhumanism's belief in the inevitability of acceleration and the singularity. For William Henry, for instance, the transhumanist vision ends up with eugenics, a future in which the unfit are culled from the population.<sup>27</sup> Max More also says the movement is characterized by excessive technocentrism.<sup>28</sup> Don Ihde notes that transhumanists tend to be enthralled to the idea of the bionic being, part human, part animal, part machine. He points to the use of prosthetics, from capped teeth to spring legs, to show these ideas are not so new, nor are they always superior.<sup>29</sup>

### **Transhumanism in China**

As we have seen, transhumanism has one foot in technology and one in theology. Thus

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27. William Henry, "Aligned with Love: Dante, Transhumanism and the Cathar's Secret of Ascension." On William Henry website. Posted July 27, 2017. <http://www.williamhenry.net/2017/07/aligned-with-love-dante-transhumanism-and-the-cathars-secret-of-ascension/>.

28. Ihde, 126.

29. Ihde, 130.

transhumanism connects with both technological and cultural attributes of Chinese culture. Yet transhumanism is something new in China. There is simply no telling how the nascent movement will develop. Like so much in China, the potential is so glaring it may cause us to overlook actualities on the ground.

Materials specifically dealing with transhumanism 超人类主义 (*chaorenlei zhuyi*) are scarce. Much discussion is limited to the internet. Weike Deng, one of the organizers of HumanityPlus in China, estimates there may be only 500 “true transhumanists” in China. Yet there should in principle be no barrier to transhumanism. Deng contends that transhumanist concepts are compatible with Chinese philosophy. An added plus is the ideological vacuum in China. Deng says that transhumanism (along with nationalism) is one of the most viable replacements for the (outmoded?) ideology of Communism.<sup>30</sup> Yuval Harari agrees, saying that China will become the breeding ground for a slew of techno-humanist religions. Yet general knowledge and acceptance of transhumanist ideas in society remains minimal. As the HumanityPlus Chinese website notes, in the West transhumanism has seeped into society, the economy and politics.<sup>31</sup> In China it exists only in the margins.

Huang Mingyu 黄明宇, writing on the Transhumanist Declaration Chinese website, offers five explanations for the difference between transhumanism in China and the West:

1. The level of investment remains low, and low-efficiency. Despite increases in biotech 生物技术, nano 纳米技术, and artificial intelligence 人工智能, the overall gap between China and other places remains large. This is being rectified through massive investment.
2. In addition there is a shortage of researchers. Researchers with interest in transhumanism and singularity also lack sufficient time to go deep. There is a corresponding lack of translators and writers on the topic.
3. Transhumanism comes up on major research websites, but understanding of the nature of transhumanism is often shallow. Similarly, there is a lack of vibrant discussion. In the U.S., says Huang, when a topic connected to transhumanism appears, there is normally a plethora of discussion, disagreement, and criticism. In China there is silence.
4. Finally, there is a lack of support for the subject by prominent people, including celebrities.<sup>32</sup>

On the other hand, China possesses several advantages for the development of transhumanism. Foremost is China’s large population that is widely perceived as hard-working, aggressive, and hard-studying. There is another advantage not directly mentioned by Huang: the government is firmly behind the development of certain technologies connected to transhumanism.

30. Quora, “How Popular is Transhumanism in China?” Weike Deng Answered Aug 11, 2017.

31. “The Difference Between China and the Outside” 国内与国外的差异. On Zhuhu website, <https://zhuanlan.zhihu.com/p/31861659>.

32. Huang Mingyu 黄明宇, Transhumanism in China (2), Recent Developments: Left or Right, Finally turn toward singularity, I’m transhumais 超人类主义在中国 (二) 近现代的发展. 向左或向右, 最终都向, on zhuhu website, <https://www.zhihu.com/people/huang-ming-yu-78/posts>.

## Made In China 2025

The world is by now familiar with the Made In China 2025 strategy. In a nutshell, this program, first announced by the Premier Li Keqiang in 2015, plans to make China preeminent in a fistful of important industries of the future, from advanced chip making to artificial intelligence. Also known as the Fourth Industrial Revolution, its focus is on ten major sectors:

1. IT and cybersecurity
2. High-end numerical control tools and robotics
3. Aerospace equipment
4. Ocean engineering equipment
5. Railway equipment
6. Energy-saving, including new energy vehicles powered by alternative fuels
7. Power equipment
8. Agricultural machinery
9. New materials, including nanotech materials
10. Biomedicine and medical devices<sup>33</sup>

Of the ten industries in the 2025 plan, IT, robotics, nanotech and biomedicine are the most closely associated with transhumanism. Yet continued investment in these areas is not particularly surprising. China's manufacturing has been moving up the value-added chain for many years now. In 2006 heavy industry represented 70% of industrial output, while light industry was 29%. In 1990 light industry made up 61% of total GDP.<sup>34</sup>

It appears that China is certainly on track to be a player in these hi-tech areas. However as we have seen the hard tech side is only one aspect of transhumanism. While as a movement it is closely correlated with technology, transhumanism's focus is on the use and impact of technology on life. It is not simply an investment strategy. Indeed, there are no indications the Chinese state shows any interest in transhumanism as a movement.

In addition, money alone does not determine success in hi tech. As Forbes notes, R&D progress involves creative destruction as well as creative construction. Such constant churning takes place in the private sector, but is anathema in the state-owned enterprises favored by the central government. In addition success will require the right mix of private-public partnerships, something not guaranteed. In fact central planning has proven to work for some industries, but fails miserably in others. Examples abound of misallocation of investment funds in Japan, Korea, and other tiger

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33. Yingzhi Yang, "What happens to 'Made in China 2025' as trade war fears grow," South China Morning Post, March 23, 2018.

34. Pan Yue and Simon J. Evenett, July 2010, "Moving Up the Value Chain: Upgrading China's Manufacturing Sector," IISD, [https://www.iisd.org/pdf/2010/sts\\_3\\_moving\\_up\\_the\\_value\\_chain.pdf](https://www.iisd.org/pdf/2010/sts_3_moving_up_the_value_chain.pdf); "Industry in China," Wikipedia, [https://en.wikipedia.org/wiki/Industry\\_of\\_China](https://en.wikipedia.org/wiki/Industry_of_China).

economies blessed by rapid growth.<sup>35</sup>

## Cultural Affinities Transhumanism in Chinese Culture

As Weike Deng noted above, there are cultural precedents for transhumanism in Chinese culture. Two traditions in particular stand out: the quest for immortality and the concept of maintaining health. Immortality has been an ideal since ancient times. The mythological Queen of the West 西王母 sought the elixir of immortality 不死药. Daoist practitioners did intense research on alchemic techniques 炼丹术 (*liandanshu*). Many emperors from very first one, Qin Shihuang, on sought the secrets of immortality.<sup>36</sup>

Beyond immortality, another key concept in Chinese worldview is *yangsheng* 养生, “nourishing life.” *Yangsheng* promotes health through proactive prevention. Self-cultivation focuses on sustaining the three treasures, *jing*, *qi*, and *shen* 精气神 (essence, vital breath, spirit). *Yangsheng* cultivation practices involve preserving *jing* and *shen*, and the circulation of *qi*.<sup>37</sup>

A core concept in the Chinese medicine classic *Huangdi Neijing* 黄帝内经 (Inner Classic of the Yellow Emperor), *yangsheng* crops up in many other contexts today. It is applied to a wide variety of industries and products, including food, natural herbs, spas, medicines, exercises, and spiritual cultivations.

Huang Mingyu also notes a number of Chinese thinkers, contemporary and in the past, who have touched on transhumanist ideas.<sup>38</sup> Ma Yun 马云, founder and head of Alibaba, has discussed life extension and the question of life extension. He conjectures that there may be laws against living over 200 years in the future. New engineering technology can create new energies and product and social revolutions. Even President Xi Jinping introduced some transhumanist ideas in a speech at the 2014 International Science and Technology Conference. Rapid technological change has created new opportunities, he said, and will cause productions and social revolutions.<sup>39</sup>

The well-known geologist Li Siguang 李四光 (1889-1971), who revolutionized China’s oil extraction technology, in his essay “The Appearance of Humanity” 人类出现 noted that humanity by

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35. In Japan’s case, petrochemicals, oil and coal never took off as planned. Software did not take off in the 1970s and 1980s. And commercial aircraft have disappointed. In Korea the end result of restructuring was a concentration of economic power and capital in the chaebols, which in turn were unable to adjust to market changes. The banking sector was not sufficiently developed to support restructuring. The government averted financial problems by ordering the banks to make emergency loans. This all came to a halt in the 1997 Asian Crisis. See Japanese Industrial Policy: The Postwar Record and the Case of Supercomputers, in U.S. Congress, Office of Technology Assessment, *Competing Economies: America, Europe, and the Pacific Rim, OTA-ITE-498* (Washington, DC: U.S. Government Printing Office, October 1991), 239-291, pp. 251-2, and Heather Smith, “The Failure of Korea Inc,” *Agenda*, Vol. 6, No. 2, 1999, pp. 153-166.

36. Xi Jinping 习近平. 让工程科技造福人类、创造未来.

习近平：让工程科技造福人类、创造未来—观点—人民网.

37. Matt Stefan, “Yangsheng,” *Encyclopaedia Britannica* online, <https://www.britannica.com/topic/yangsheng>.

38. Huang Mingyu 黄明宇, *Ibid*.

39. Xi Jinping 习近平. “Let Engineering and Technology Create Prosperity for Humanity, Create the Future” 让工程科技造福人类、创造未来. CPC news website. <http://cpc.people.com.cn/n/2014/0604/c64094-25099536.html>.

its nature does not wait to develop, but accelerates progress, increasing in multiples.<sup>40</sup>

Mao Zedong similarly forecast that humanity, in its movement toward a higher level, will one day die out, to be replaced by something more advanced.<sup>41</sup> All of these thinkers seem to touch on transhumanist concepts or values. Yet there is no single movement from China that wraps all these ideas together. Transhumanism as a movement is an import.

There are Chinese critics of the concept. Yuk Hui, a Hong Kong-born researcher now based in Germany, sees transhumanism as a one-sided form of globalization 单边的全球化 (*danbiande qiuanqiuhua*). He dismisses transhumanism as a new method of stimulating consumerism 刺激消费主义 (*ciji xiaofeizhuyi*). Extended lifespans and enhanced bodies are simply methods to reformulate existing problems. In addition there are in China no second thoughts on new technological developments; all are accepted as part of the ideology of speed 加速主义 (*jiasu zhuyi*). Hui groups transhumanist considerations under the category of “sinofuturism” 中华未来主义 (*zhonghua weilai zhuyi*), a profound confidence in China’s (or Asia’s) future. These are all, Hui concludes, forms of nihilism.<sup>42</sup>

## Organizational Weakness

Huang reserves his strongest criticisms for organizational sloppiness. Individual organizations do not co-operate, for instance on cryogenics or biotech. Instead each unit goes its own way. Organizations in addition have no common goals, and so lack motivation for development. Management within organizations is also weak. Corporations have limited resources and hold few conferences. Without publicity the topic is unfamiliar and unattractive to most people. All these deficiencies result in limited social influence for the movement.

In addition there is the question of how much innovation can be fostered through government planning and directives. There is no doubt that government support helps in many cases; prominent examples are Silicon Valley, the NASA space program, and support for export champions in Japan and Korea. However government directed efforts can be clumsy and lead to excessive investment. In China market expectations of innovation can lead to unethical actions. Liu Yadong, editor of *Science and Technology Daily*, notes widespread counterfeiting and fraud stemming from a lack of a scientific spirit in China’s tech sector.<sup>43</sup>

## Conclusion: Through the Lens of Religion

40. Li Siguang 李四光, 《人类的出现》[Humanity’s appearance], in 《天文、地质、古生物资料摘要》, 高级中学课本——语文, 第二册, 第216—217页, [Advanced middle school textbook, language] (People’s Publishing, 1995, 1996), 216-7.

41. 《毛泽东文集》第八卷 “关于人的认识问题” 中,

42. Peng Bai interview with Yuk Hui 专访许煜: 人工智能的超人类主义是二十一世纪的虚无主义, June 29, 2017, The Paper 澎湃新闻, [https://www.thepaper.cn/newsDetail\\_forward\\_1718074](https://www.thepaper.cn/newsDetail_forward_1718074).

43. Sarah Dai, “Redcore Browser Saga Draws Public Censure,” South China Morning Post, Aug. 21, 2018, p. B2.

From the discussion above it is clear that transhumanism is just beginning to raise its head in China. True, two conferences have been held in Beijing (and one in Hong Kong). There is website discussion. And the national government is making major investments in certain related technical industries like IT and robotics. Yet transhumanism as it currently exists in the West is a movement with many angles. It is certainly more than investment in high tech hardware. It implies constant investigation of a transhumanist future.

Many writers such as Hank Pellissier and Ben Goertzel are extremely enthusiastic about transhumanism's prospects in China. "The future," says Pellissier, "is rapidly shifting to East Asia."<sup>44</sup> Such predictions have been in the air since the 70s, in my experience, and most are based on infectious optimism created by rapid growth through export-led industrialization. So far all countries experiencing such rapid export growth have slowed once their economies matured, and there is no reason to believe China won't follow the same path. When it comes to the prospects of transhumanism in China, capitalist cheer mixes easily with Silicon Valley techno-optimism, forming a heady cocktail of exuberance.

Transhumanism is much more than an investment strategy. It needs many supports in order to thrive. It will evolve in such Asian contexts as Japan, Korea, and China. What the movement will look like in ten years, however, is an open question. This brings me back to the original premise, that the perspective of new religious studies can help unpack transhumanism in China.

I wish to use new religions not as an argument, but as a lens, showing a possible future. While the multiple links between transhumanist philosophy and religion are clear, it is not my purpose to prove that transhumanism is or is not a religion. But let us assume, for the purposes of this argument, that transhumanism is a non-Chinese religious movement poised to spread into China. In that were the case it would bump up against a significant set of barriers not present in many non-Chinese contexts. Current government policy is hardly welcoming to new religions. (A new religion is here defined simply as any religious tradition not officially allowed under the Chinese constitution.) Those religions outside the five-religion structure of Christianity, Catholicism, Daoism, Confucianism, and Islam have no legal standing and no way to register. The government openly monitors virtually all religious communal activity, whether public or underground. This government monitoring is tightening. On February first of this year the government issued new regulations governing religion.<sup>45</sup> These regulations strengthened government oversight over registration, internet activities, and donations. Any new group, even one well-established overseas, is essentially unwelcome.

The government is just as focused on ideological threats as it is on organized religions. Xi Jinping has continually emphasized the need to maintain ideological vigilance. "We cannot, he said

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44. Hank Pellissier, "East Asia is More 'Transhumanist' than the USA & Europe," on Ethical Technology website, Sept. 1, 2013, at <http://ieet.org/index.php/IEET/more/pellissier20130901>.

45. "Regulations concerning religion" 宗教事务条例 (国令第686号), [http://www.gov.cn/zhengce/content/2017-09/07/content\\_5223282.htm?from=timeline](http://www.gov.cn/zhengce/content/2017-09/07/content_5223282.htm?from=timeline).

in his famous August 19, 2013 speech, “even for a moment slacken and weaken ideological work.”<sup>46</sup> A *religious* belief system intimately connected to bringing about enhanced individual properties and robots, and predicated on individual liberty, would be met with suspicion, at best.

This is not to say that the techniques of genetic manipulation, supercomputing, and life extension are not of interest. They are—as technologies. Full-blown transhumanism has so far flown below the radar. Once the implications of a future dictated by such technologies becomes apparent, true transhumanism will have arrived. At that point it will very likely be seen as an ideological threat.

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