

2011

HARVARD-YENCHING
INSTITUTE WORKING
PAPER SERIES

POLITICS OF LIFE AND SCIENCE:
THE INTRODUCTION OF HANS DRIESCH'S
VITALISM TO POST-WWI CHINA

Ku-ming (Kevin) Chang | Academia Sinica

Politics of Life and Science
The Introduction of Hans Driesch's Vitalism to Post-WWI China

Ku-ming (Kevin) Chang
Institute of History and Philology, Academia Sinica, Taiwan
Harvard-Yenching Institute

Abstract

Hans Driesch's biology and philosophy was introduced to China at a time when the destructive First World War drew Chinese intellectuals to a debate on the value of Westernization and the validity of science and technology. Noted in Europe and the US for his discovery in embryology, Driesch developed a vitalist philosophy that asserted the fundamental difference between the living organism and inorganic bodies. He was among the few international intellectual heavyweights--Bertrand Russell, John Dewey, and Tagore included--who were invited to and indeed visited China in the early 1920s. This paper looks at the ways in which Driesch's Chinese advocates used his teachings to elaborate a philosophy of life that was free from the dictation of science, and at the reasons why the choice between science and the philosophy of life amounted to a political choice for the young Chinese republic.

It was relatively early in the Fall, 1919, when Liang Qichao (梁啟超) began the travelogue of his journey to Europe. The weather was unusually cold in Paris. It was always cloudy, and sometimes foggy. The sun hardly ever unveiled itself. Leaves were almost all gone by mid-October. Coal was in short supply. What was available as fuel could only keep Liang and his companions from freezing. (梁啟超 1963, pp.1-3)

Everything seemed to reflect the author's mood and the post-war depression in Europe.

Liang and his companions had come to Europe with the hope to make China's grievances heard and injustice corrected in the Peace Conference in Paris. Chief among the Chinese grievances was Japan's seizure of the German lease holds in Shandong.

Though not an official delegate of China, Liang followed closely the progress of the conference and interacted closely with the international diplomats and journalists who attended. After the signing of the Treaty of Versailles (with China's abstention), he travelled through dozens of big European cities, and visited places where important battles of the War were fought. He observed first-hand the destruction of the war and studied its political, social and economic aftermaths. His observations and the results of his study then became the substance of his travelogue.

Liang's travelogue and the Treaty of Versailles soon had great impacts on the intellectual landscape in China. In spite of the United States' sympathetic support, the treatise denied the Chinese request of the return of Shandong. That sparked on May 4th, 1919, a large-scale student movement in China. Political in origin, this movement was to be remembered as an intellectual movement often seen as the beacon of modern China. Though he missed the student movement while in Europe, Liang's reflection on the hopes and especially the difficulties of Europe was to shatter the long-held image by the Chinese of the West as a synonym of wealth and power. Liang attributed the difficulties to science and called for an end to the Chinese optimism about the power, or even omnipotence, of science. (梁啟超 1963, pp.17–22) All these would become important elements of a debate in which Liang's young companions, Zhang Junmai (張君勱) and Ding Wenjiang (丁文江), took the opposite sides. Zhang in particular was instrumental in the introduction of the German biologist and philosopher Hans Driesch to China.

This paper looks at the reception of Driesch's science and philosophy as an international history. His teaching originated in the 1890s in Germany, was warmly received in European countries in the 1900s, hotly debated in the US in the 1910s, and then travelled to China and Japan in the 1920s. It arrived at an age that can be seen as internationalist in Chinese history. That was when the Chinese elite, reformers and conservatives alike, were eager to turn to the West, including the new Soviet Union, for intellectual resources and political guidance. They invited prominent thinkers, Bertrand Russell, John Dewey, Tagore, and Driesch to China. A very international history of a scientific and philosophical doctrine at an internationalist age thus makes today's paper look like a footnote to my faculty mentor, and today's commentator, Bill Kirby's proposal for studies of China's internationalization. (Kirby 2006, p.870) In his work Professor Kirby has pointed out foreign relations, warfare, trade as areas in which modern China was internationalized. (Kirby 1997; Kirby 2006) In this paper I will add ideas and science to the list and analyze the internationalist character of this age.

Who was Hans Driesch? A colleague once asked me why Driesch was so important that many early Republican intellectuals referred to him, known as 杜里舒 in Chinese. Driesch was born in Germany in 1867. He studied zoology, botany and comparative anatomy at several German universities, and did his doctoral work under the prominent German evolutionary biologist Ernst Haeckel (1834-1919), receiving his doctorate in 1889. From 1891 to 1900 he worked at the coastal Station of Marine Biology in Naples, Italy. His embryological work there earned him international recognition and gradually led him to philosophize his empirical finding. Thanks to his

philosophical work he was invited to give the prestigious Gifford lectures in 1906 and 1908 at Aberdeen, and was awarded the chair of natural theology at that university. He received in 1921 a chair of philosophy at Cologne and a year later at Leipzig. He arrived in China in 1922, moved on to Japan in 1923, and then further on to the US. Not cooperative with the Nazis, he was the first non-Jewish scholar to be removed of his university position (1933). He died in Germany in 1941.

Driesch's most important biological discovery was based on his experiments on the embryo of the sea urchin. Slightly before Driesch's work, Wilhelm Roux (1850-1924) had worked on frog embryos. Roux observed that, if a half of the 2- or 4-cell frog egg was destroyed, the remaining cells would develop somewhat further into a half embryo before it stopped. In his eyes this shows that the embryo was a machine formed by different parts that corresponded to pre-determined functions. From this Roux derived that biology was a mechanical science. Contrary to Roux's finding, Driesch found (in 1892) that, if a 2-cell egg of the sea urchin was separated, each of the blastomere would develop into a whole, healthy, sea urchin.¹ Driesch's empirical finding on the growth of separated embryos was reaffirmed by the scientific community later.²

From his empirical finding Driesch developed his vitalist philosophy. For Driesch his work on the separated embryo was a fundamental revelation. If the embryo was a machine, the removal of a crucial part would stop it from functioning. The healthiness of the developed embryo proved that life did not work like a machine. Driesch came to

¹ As we know it today, it is the way identical twins develop from the egg.

² Most notably by the systematic study of Hans Spemann (1869-1941) in the early 1900s

assert that life was fundamentally different from the inorganic world. While inorganic bodies are governed by physical and chemical laws, life is not. Life resides in a principle that leads the embryo to its fulfillment and directs the organic evolution. Though separable in the early divisions of the embryo, the vital principle could exercise a holistic power on all parts of the organism to perform regular functions and adapt to changes in the environment. Driesch named this principle entelechy, a term rooted in Aristotelian philosophy. (H. Driesch 1905; H. Driesch 1914a)

This vitalist position was not new. Modern vitalism emerged as a response to the rise to dominance of Cartesian philosophy that dismissed the ontology of life. The seventeenth century philosopher René Descartes proposed that a living dog was just a machine that happened to be able to move itself. While he paid close attention to the movements of body parts that resulted from their material structure, he completely ignored the question of what made something living. For post-Cartesian vitalists, that seemed to be a fundamental caveat that could only be filled by holding on to a vital principle, a notion that had been central to the conception of life since Greek antiquity. That principle was the source and cause of life that made it different from the machine or lifeless matter. (Chang 2011) That difference assumed that life was not reducible to mechanical laws. This thread of thinking had waxed and waned in the post-Cartesian centuries in its battle with the mechanists. It received a renewed life thanks to Driesch's credibility in biological science.

For Driesch and his followers, vitalism offered answers to difficult philosophical questions like free will and individuality. As natural sciences continued to advance, it seemed increasingly probable that everything, including the mind, was determined by material conditions. If that was true, then there was no room for free will. This specter of determinism haunted every serious philosopher. For a problem created by science, rescue could only come from science, such as Driesch's finding. If, as Driesch pointed out, the organism was not governed by natural laws, then it earned a freedom from material causation and gave room to free will. (H. Driesch 1914a) Moreover, as the entelechy varied from one organism to another, it then accounted for the characteristic difference of the individual being. Individuality then had an ontological basis. (H. Driesch 1914b)

The publication of Driesch's Gifford Lectures greatly extended his readership, especially in the United States. The American interest in vitalism had largely submerged before the publication of *The Science and Philosophy of the Organism*, which was the printed collection of Driesch's Gifford Lectures. (H. Driesch 1908) It was his first English publication, and within a few years touched off an intensive debate on vitalism and mechanism in America. What began the debate was Arthur Lovejoy's review of Driesch's book (Lovejoy 1909). Though known as the archetypical historian of ideas, Lovejoy was trained in philosophy. He showed his knowledge of the recent vitalist trends in natural sciences in his review, which was published in the leading American scientific journal *Science* in 1909. Although he pointed out problems and confusions in Driesch's argument, close to the end Lovejoy remarked that "Driesch has made a contribution of

the first importance to our knowledge of the distinguishing peculiarities of living material systems.” (Lovejoy 1909, p.765) Following Lovejoy’s review were dozens of publications between 1909 and 1918 by eminent American philosophers, biologists and psychologists³ Some of them directed their discussion at Driesch’s vitalism, others at Lovejoy’s interpretation, and yet others at the difference between vitalism and mechanism.⁴ In addition to these discussions, by 1914 Driesch had had three books published in English, an indication of his significant readership in the English-speaking world.

Driesch was little known in China until shortly before his visit there. After his return from Europe, Liang Qichao started in 1920 an organization, 講學社, to promote advanced learning. John Dewey (early May 1919 – early July 1921) was already visiting China on the invitation of his previous students, including Hu Shih. Motivated by the popularity of Dewey’s visit, Liang’s organization followed to invite Bertrand Russell, who then visited in China from October 1921 to June 1922. It also planned to invite a German philosopher and first approached Rudolph Eucken (1846-1926) upon Zhang Junmai’s recommendation. Eucken had just received a Nobel Prize in literature in 1908 in recognition of “his earnest search for truth and his penetrating power of thought, and his idealist philosophy of life.” He thus appeared to be the leading philosopher in a country known for its great thinkers. Eucken responded nicely to the Chinese invitation,

³ The philosophers included Lovejoy and Edward Spaulding (1873-1940), the biologists included Herbert Jennings, Francis Sumner and Jacques Loeb, and the psychologists included William McDougal and Howard C. Warren.

⁴ For a bibliography of this debate, see (Lodge 1918)

but declined it for the reason of age. Considering age and health, he recommended Hans Driesch. This younger philosopher's training in science, he and his Chinese guests reasoned, would meet the Chinese audience's tendency to turn to science for authority. Driesch accepted the offer and arrived in China in October 1922. His Chinese hosts were gratified that within a few years they received three world-leading philosophers from America, Britain and Germany. (張君勱 1921, p.1) They added Tagore and Indian literature to the lineup in 1924.

Zhang Junmai was instrumental in Driesch's invitation. He was born in 1887, studied political economy at Waseda University in Japan in 1906-1910, and succeeded in 1910 in one of the last civil service examinations as 法政科進士. After the revolution of 1911 he intermittently took part in the young republic's politics and studied at Berlin in 1913-15. He joined Liang Qichao on his trip to the Paris Peace Conference. After the conference he again stayed in Germany, this time studying philosophy with Eucken at Jena. There he participated in the deliberation on the German invitee to China and extended the invitation to Driesch.⁵

Zhang also played a great part in the introduction of Driesch philosophy. Linguistically gifted and updated on Western philosophy, he accompanied this German philosopher and his wife to China. Before their arrival he had published in Beijing a report on the background of the invitation, in which he also gave a short introduction to

⁵ Zhang held no government offices after his second trip to Germany. Yet he created and headed the Party of Democratic Socialism. He was the main author of the Constitution of the Republic of China. He was also one of the most influential authors on Chinese Confucianism, and indeed was credited for coining the term neo-Confucianism in English.

Driesch's philosophy (張君勱 1921). He served as the visitor's interpreter in most of his lectures, often together with the Harvard philosophy graduate Qu Shiyong (瞿世英)。⁶ They translated his lectures and published them in ten separate volumes soon after they had been delivered. Zhang followed with a translation of Driesch's book on Einstein's relativity theory, published in 1924. (H. Driesch 1974)

Besides Zhang Junmai, two overseas students and a well-circulated magazine did the most to introduce Driesch's work. Fei Hongnian (費鴻年，1900-1993) was studying marine biology at the University of Tokyo when Driesch visited China. He knew very well Driesch's work and the international discussions about it, citing his German publications and the articles by American scholars. Only in his early 20s, he published in 1922 and 1923 about ten essays in different magazines, introducing Driesch's contribution to biology, his philosophy, and an overview of vitalism.⁶ Meanwhile a student of philosophy at the University of Illinois, Urbana-Champaign, Jiang Shaoyuan (江紹原, 1898-1983) prepared a Chinese translation of Driesch's *Problem of Individuality*, though with a Chinese title *Gist of Realist Vitalism* (實生論大旨), as he believed that this work represented Driesch's vitalism better than anything else he had published (H. Driesch 1923, p.2). Jiang apparently learned about Driesch's work from the American academic community's discussions, as is clear from the annotated bibliography he provided as an appendix to his translation. In addition the influential magazine *Dongfang Zazhi* put forth a special issue dedicated to Driesch's work during his visit in China. (東方雜誌

⁶ These essays then were published as a collection in 1924 as *Driesch and his Teachings* (費鴻年 1924b).

1923) Thus in 1922-1924, through translations and media coverage Driesch's work was intensively promoted and discussed in China. Driesch became a household name.

We know little about the motives of Fei Hongnian and Jiang Shaoyuan in their introduction of Driesch. But it is easier to see the incentives in the use of Driesch in the high-profile debate usually known as 科學與玄學論戰, literally the debate of science and occult learning. While Driesch was in China, Zhang Junmai gave a talk to the students of Tsing Hua Preparatory School on what he called the viewpoints of life, or 人生觀。 He says that while science gives definite answers to many questions, there are areas in social and personal life where no definite answer can be found. These he calls viewpoints of life. They vary from one person to another, while none can be said to be better than the others. For Zhang Junmai, science is objective, rational, analytic, deterministic, and concerned about uniformity, whereas viewpoints of life are subjective, intuitive, synthetic, voluntary, and concerned with individuality. (張君勱 1925, pp.1-9) At a point in the talk he revives a thread of traditional argument on the difference between the East as inner looking and the West as outward expansive. He suggests that this outward expansion, seen in industries and material civilization that led Europe to the disastrous war (張君勱 1925, pp.10-11), had its roots in science. This assessment incited strong responses from Ding Wenjiang, whom he befriended. Ding's responses then invited Zhang to use Driesch to defend himself.

Ding Wenjiang (1887-1936) was a scientist who had good training in Western philosophy. Having studied in Japan, he spent 7 years (1904-1911) in Britain for high

school and undergraduate education, receiving degrees in zoology and geology at Glasgow in 1911. He was probably the best-known Chinese scientist of his time and very outspoken on intellectual and cultural issues. In the journal he co-edited with Hu, 努力週報, he assailed Zhang Junmai for his challenge to science.

Ding's critique of Zhang addressed a few points. He quickly, and rightly, pointed out that Zhang delved into metaphysics, which he translated as 玄學, apparently not a term of mockery at the time. He summarizes empiricist epistemology, trying to establish the sensible and physical base of mental phenomena. When given a physical base, they are subordinate to the laws of natural science. Not only dead matter is subordinate to science. Darwin's biology has already shown that living organisms are also subject to scientific laws. (丁文江 1925) Ding smells Henri Bergson's intuitive philosophy, which he suspects Zhang tries to combine with the Confucian doctrine of Xin or the mind. At last, Ding rejects Zhang's attribution of the responsibility of the First World War to science. For Ding, the responsibility lies with European politicians and educators. Obsession with Christian theology, they lacked scientific education. Science therefore was not responsible for their decisions. On the alleged virtue of speculative Confucian philosophy, Ding argued that Song Confucians lost China to the Mongols and Ming Confucians lost it to the Manchus. Zhang Junmai's proposal of Confucian philosophy is therefore misleading, and in fact dangerous for the new republic.

Zhang had hoped that Driesch would lend him particular weight in the debate thanks to his credential as a Western figure, and as a scientist. When the proponents of

science's rule looked to the West for guidance, the testimony of European philosophers on the shortcoming of Western science meant a great deal. Among them were Driesch and Bergson, whom Ding associated Zhang with. Bergson represented another strand of vitalism influential in the early 20th century, and was also recently introduced to China. He advocated the notion of *élan vital*, which constituted the living organism's spontaneous urge to create and reproduce in a material world that was static and bound by natural laws. He preferred intuition over reason as the instrument for access to truth. His status in philosophy was boosted when Dewey, then lecturing in China, named him, Russell, and William James the three greatest living systematic philosophers (Dewey 1920). Compared with Driesch, however, Bergson appeared purely metaphysical. Driesch's work on the other hand seemed to be firmly grounded in science.⁷ Such a respected scientist's acknowledgement on the limitation of natural science was indefinitely more invaluable. Considering his credibility, Driesch could work as a trump card against the Chinese proponents of science's power.⁸

Taking a medical leave in the south, Hu Shi entered the fray later. By then Hu Shi had become the icon of literary and cultural reforms and seen as the preceptor of the May Fourth Movement. The recent visit of Dewey, his former supervisor at Columbia University, further elevated his stature as a champion of Western philosophy.

For Hu Shi, Zhang Junmai's question on the validity of science reeks something vicious. Indeed that vicious air has begun with Liang Qichao's travelogue. Hu Shi

⁷ Although Zhang would add that Bergson's psychology in his *Matter and Memory* was based on decades of clinical work in Paris' hospitals. It had serious scientific, empirical base.

⁸ For a discussion on Zhang Junmai's references to Driesch's work, see (龙国存 2009).

observes that in the past few decades, science has established an unwavering status in China. Even the conservatives who did not want to recognize the strength of Western culture never questioned the value of science. Now Liang and Zhang try to use the World War to topple the image of the West, and worse still, that of science. (胡適 1925) For the sake of China's modernization, however, the learning and application of science must be continued. Even though Zhang Junmai judges that the Chinese people were superstitious about science, Hu quickly retorts that they only have superstition and no science. (胡適 1994b, p.502) Instead of progressing with science, they look for the final cause, or the "vital principle," obviously a reference to vitalism. For Hu Shi, the "superstitious" thinkers either spoke of Taiji, or Li and Xin (理、性). The more fashionable ones mixed the "Consciousness Only" School of Buddhism (唯識) with Bergsonian psychology, or they bring in anti-science metaphysicians in the West to argue that human life, or 人生, transcends science. (胡適 1994a, pp.502–503) Hu Shi advises even more application of science to social and personal life as the recipe for his home society. (胡適 1925) For him, Zhang Junmai's position would reverse China's modernization that had hardly taken off. It was a threat to the country's intellectual and cultural future.

On the political future of China, Chen Duxiu joined the debate. He was Hu Shi's close colleague in the recent cultural and literary reforms. Yet newly infused with an enthusiasm for Marxism, he took a different path to defend science. Sharing with Marx a faith in science, Chen argued that social sciences, such as psychology, sociology, and

political science, were just conquering the areas of personal and social life that Zhang Junmai considered subjective. New developments in those sciences looked promising, if not completed. Advancing the historical materialism embedded in Marxism, Chen argues that even mental phenomena had a material base and are therefore subject to laws of nature. Unlike Ding Wenjiang, he sees the war in Europe not as the fault of politicians and educators, but instead as the result of Capitalist Britain and Capitalist Germany fighting for markets (陳獨秀 1925, p.11). Now a committed historical materialist, he openly challenged his close colleagues Hu Shi and Ding Wenjiang as being idealistic, and thus erroneous.

The reception of Driesch in the debate was largely pre-determined by the participants' intellectual and political orientations. Zhang Junmai's trump card did not play out as well as he had hoped. Chen Duxiu simply ignored Driesch. Ding considered Driesch as a small figure who was unable to shake Darwin's glorious science. He compared Driesch to a monk (thus irrational) who taught metaphysicians preaching. (丁文江 2000, pp.34, 57). As seen above, Hu ridiculed Driesch as an anti-science metaphysician. (胡適 1994a, p.502). Driesch's work, on the other hand, was held in high regard by those who had reservation about science's unlimited power. Liang Qichao, for example, acknowledged that he was persuaded by Driesch's elaboration of the difference between the mental and the material. (梁啟超 1922) Lin Zaiping (林宰平), a Buddhism scholar and a common acquaintance of Zhang and Ding, regarded Driesch as a credible authority for the history of philosophy. (林宰平 1925, p.8)

Beyond the debate, Driesch's philosophy was described as one that had rigorous basis in biological science in the philosophy textbooks published in China in 1920s and 30s. Qu Shiyong, Zhang's collaborator in the interpretation of Driesch's lectures, treated his work as a formidable school in modern German philosophy. (瞿世英 1928, pp.5, 15, 54–55). Li Shicen placed Driesch's work in the section on metaphysics in his *General Introduction to Philosophy*. (李石岑 1933, pp.213–15) Chen Zhengmo ranked Driesch as an evolutionary philosopher in his *Introduction to Modern Philosophy*. (陳正謨 1934, pp.41–45) Fu Tongxian surveyed Driesch's biological findings at length in his work on the *Scientific Foundation of Philosophy*. (傅統先 1936, pp.132–42)

Driesch's work gave inspirations to two figures particularly. One was the biologist Fei Hongnian. Driesch's work left little impact on the research in biological science in China, as his teaching was not much a research program. It, however, motivated the Fei Hongnian to formulate his own theory of the nature of biological life. (費鴻年 1924a) In this book Fei integrated many recent findings in biology mostly in Driesch's concepts and language. The other person was Zhu Qianzhi (朱謙之). An eclectic thinker, Zhu proposed a philosophy of history based on a holism that derived from Driesch's conception of organism, and for the backbone of his philosophy he advocated a progressive evolution of knowledge, or *Wissenlinie*, that he found in Driesch. (朱謙之 1926, pp.173–74, 181; 郑先兴 2006, pp.21–23).

Driesch's work, and vitalism in general, found ready ears in conservative thinkers who made efforts to defend the value of Chinese philosophy. The debate on science and

metaphysics unleashed a wave of publications on the philosophy of life that incorporated vitalism to their formulations of ideal life. For example, the above-mentioned Li Shicen (李石岑) praised Driesch and Bergson for liberating philosophy from its previous insulation from real life. (李石岑 1926, p.23) In comparison they found Bergson's philosophy much easier to use in their defense of the Chinese tradition. Li Shicen, for example, compared the French vitalist's notion of life to Confucius' remark of life as the supreme virtue of Heaven and Earth (天地之大德曰生) and hailed Bergson's renewal of Western metaphysics as a model for the development of metaphysics in China (李石岑 1926, p.203). Zhou Gucheng (周谷城) saw in Bergson's notion of "I" an intuitive unity of the self and things, which stood for his ideal of 物我合一. Besides, he compared his own notion of life or Shenghuo (生活) to Bergson's idea of *durée*. (周谷城 1928, pp.26, 64). These thinkers were almost all influenced by Liang Shuming (梁漱溟). In his *Culture and Philosophy of the East and the West* (梁漱溟 1924), Liang reformulated Confucianism by relating Bergson's notion of intuition to Sung Confucians' Heavenly Principle 天理 or Wang Yangming's (王陽明) conscience 良知. (翁芝光 1995).

The philosophers of life obviously inspired Chen Lifu (陳立夫), the theorist of the Nationalist Party, or Kuomintang (KMT). Soon after the KMT unified most parts of China, he presented a philosophy to the students of the KMT party school. Although he credited everything important to 總理 Sun Yat-sen, surprisingly it was a vitalism (唯生論) that centered on a vital principle (生元). (陳立夫 1932) He repeated much that had been proposed in the Chinese writings on the philosophy of life. Though not specifying

the source of his vitalism, his reference to the division of embryos at least suggested the knowledge of Driesch. He asserted that such a philosophy, based on the vital principle, would transcend both idealism and materialism. (陳立夫 1944, pp.20, 62) By then it was clear that the KMT's enemy was not the idealists, but the materialists. Of course his vital philosophy was meant to win the ideological war with the Communist Party. (張典達 2009, pp.44–66)

The introduction of Driesch to China thus concerned science and life as much as cultural and political visions for the Chinese nation. Driesch's biological science was introduced to limit the validity of science. His work and Darwinian biology were cited to buttress different authors' propositions on organic or even socio-political life. In his following responses, Zhang admits that his objective is indeed to create room for moral life in which Confucian philosophy plays an important part. This is, he says, in fact directed at the corrupt and even immoral ruling warlords in contemporary China (Hu, Ding's Biography, check original, 118). Zhang Junmai's admission then confirmed Hu Shi's suspicion that his question on science's power was to resurrect traditional Confucianism. Zhang was not a conservative in his political outlook. Yet he opened up room for the writings on the philosophy of life that thrived in the 1920s and 30s and eventually included Chen Lifu's party philosophy. These philosophers also read Western philosophy, but they obviously found their ideal moral and cultural life in Chinese traditions. That explained why Chen Duxiu, Hu Shi, and Ding Wenjiang were worried when they first saw the signs. They had just launched critiques of Confucianism as the culprit of China's backward-looking society, characterized by women's foot-bondage

and the Chastity Arch. For them, their country's resistance to progress would produce grave consequences, as the principle of natural selection in Darwinian biology was widely perceived to be applicable to the survival of countries (Ding's biography, 119). Choice between science and the philosophy of life in this sense amounted to a political choice and a front of cultural politics.

Before I close this international history I will just briefly point out that, in Japan, Driesch's work arrived at a time when a vitalist movement (生命主義 seimei shugi) was developing. While in China it was academics who discussed Driesch and Bergson, in Japan many of the participants of vitalism were artists and literary authors. There they used the image of life's creativity and spontaneity to resist the industrialization and increasing militarization of Japanese society. They liberally used elements in traditional Japanese literature and Buddhism as well as the ideas of Western thinkers like Bergson and Driesch.⁹ One is tempted to ask what social and cultural conditions in China and Japan shaped this difference.

The post-WWI years in which Driesch's work was introduced to China had distinct features. First of all, the Chinese society was no longer divided by proponents and opponents of Western ideas. The proponents of Driesch's vitalism and their opponents all showed a remarkable interest in foreign ideas. In their debate, Ding Wenjiang and Zhang Junmai reviewed the history of Western philosophy to rebut the other person's position. Each provided a long bibliography of Western works to show

⁹ This movement has been quite well studied (鈴木貞美 1996; 鈴木貞美 1995)

that his points had firm grounding in Western ideas.¹⁰ What is more remarkable was the embracement of Western ideas in the works of those usually known as cultural conservatives. Though Liang Shuming and the philosophers of life had objections to aggressive Westernization, their response was not to reject Western ideas altogether. While like the late Qing conservatives they continued to argue that Chinese spirituality was superior, unlike their predecessors they no longer rejected Western learning altogether nor put them off merely as external application (用). They seriously studied the works of Russell, Dewey, James, and Driesch and justified their beloved Chinese tradition in Western philosophical concepts. Regardless of their self-identities, almost all the Chinese thinkers were voracious readers of Western works. It was thus an age very open to international ideas and institutions.

While the First World War did not begin this internationalist age, its aftermath in international politics brought about an important shift. The Chinese society as a whole first seriously opened itself to the West after the defeat of the Sino-Japanese War in 1895. Instead of hating Japan, the Chinese political and intellectual elite looked up to Japan as a model of Westernization. Since then tens of thousands of reformers and revolutionaries crowded foreign student lodgings in Tokyo and other Japanese cities. Liang Qichao, Chen Duxiu, Zhang Junmai, Ding Wenjiang, Lu Xun and even Chiang Kai-shek studied there at some points. In Japan or not, for almost a generation the majority of the Chinese elite acquired their knowledge of the West through Japanese translations.

¹⁰¹⁰ Ding even acknowledged that he and Zhang in fact would exchange books if one did not have a copy of the books cited by the other. (丁文江 2000, p.25)

This intellectual dependency began to end when Japan's aggression first became obvious to the Chinese public in its take-over of Germany's lease holds in Shangdong during the First World War. For many, including Chen Duxiu, Mao Zedong and Sun Yat-sen, Japan's role as a model of the country's future had to be replaced by the Soviet Union. Zhang Junmai on the other hand recommended the post-war social democracy in Germany.¹¹ With or without admiration of the Soviet Union, the post-war years saw the first generation of Chinese intellectuals who weaned the Japanese medium for Western thought. The introduction of Driesch signaled this shift. Many of the Chinese students learned the works of Russell and Dewey first through their Japanese translations. By contrast they learned Driesch's works either through Western languages or Chinese translations, as they had no Japanese translations to rely on until many years later. They also hosted Driesch on their soil before their Japanese counterparts did.

Contrary to the common perception, this internationalist age, marked by the outburst of the May Fourth, was in fact the first time when science's authority was under siege in China. The historiographies in Taiwan, China, and to a large extent in the West have depicted the May Fourth as a time in which modern values like science and democracy were for the first time collectively celebrated in China. Just as Hu Shi pointed out, the Chinese had held science as supreme. They regarded it as what empowered the West and set it as their first goal to build up science in their country. Liang Qichao's travelogue fired the first shot at the absolute authority of science. Zhang Junmai then

¹¹ Driesch, on the other hand, had observed a strong American influence on China. (H. Driesch & M. Driesch 1925, pp.184–93)

enlisted Driesch's science and philosophy to undermine the theoretical foundation for its authority. While none of them, not even the cultural conservatives, rejected science altogether, yet it served their purpose just to restrict the once unlimited validity of science. Since then science has never recovered its unchallenged authority.

The injury that science suffered can be said to be a natural consequence of another character of this age. That is, all parts of the Chinese society more than ever became aware of the complexity and diversity of the West. Before the crisis of the War, the Chinese by and large had a simplistic image of Western society as a homogenous body. Now they realized that differences of the Western countries put them into war, and even led members of the victorious side to take different positions in the Peace Conference. The Chinese public for the time learned, particularly from Liang Qichao's travelogue, that even Western countries could suffer bankruptcy and weaknesses. They also heard directly from the visitors from the West—Dewey, Russell, and Driesch—that Western thinkers advocated philosophical positions that were not entirely compatible, or even in conflict, with one another. Zhang Junmai and Chen Duxiu soon got into an argument on the superiority of social democracy and communism, each drawing their models from post-war Germany and the Soviet Union. They both showed their command of the political developments and internal debates in those countries.

This internationalist age also saw the Chinese intellectuals' aggressive employments of Western ideas. All parts--liberals, social democrats, Marxists, and conservatives—integrated, with great intensity and discretion, Western notions or

institutions into their own visions for domestic culture or politics. This active integration cannot be properly described as passive reception, or as reluctant reactions to Western challenges, even though they, like their Western counterparts, very actively responded to the new international order in ways that met their cultural or political concerns.

This internationalist age did not last very long. The political foundation that supported this intellectual openness was precarious in the first place. The ruling power in Beijing never enjoyed the critical voices of the intellectuals that centered at Peking University. Indeed many of the progressive members of the faculty, including their protector Cai Yuanpei (蔡元培), lost their positions and went south. The KMT's unification of the country might have brought political stability for about a decade. But as Chen Lifu's party philosophy shows, as soon as the KMT seized power, it tried to establish orthodoxy and tighten ideological control, especially after the KMT's conflict with the communists intensified. China before long was consumed by a war with Japan and protracted civil war. By the time when the Communists took over power and closed the country altogether, the internationalist age had died away. By then biologists had learned so much more about chromosomes in the division of the embryo that the scientific foundation for Diresch's vitalism fundamentally changed.

Chang, K.-M., 2011. Alchemy as Studies of Life and Matter: Reconsidering the Place of Vitalism in Early Modern Chymistry. *Isis*, 102, pp.322-29.

Dewey, J., 1920. *杜威五大講演*, Beijing: Chen bao she.

- Driesch, H., 1905. *Der Vitalismus als Geschichte und als Lehre*, Leipzig: Johann Ambrosius Barth.
- Driesch, H., 1914a. *The History & Theory of Vitalism*, London: Macmillan.
- Driesch, H., 1914b. *The Problem of Individuality a Course of Four Lectures Delivered Before the University of London in October, 1913*, London: Macmillan,.
- Driesch, H., 1908. *The Science and Philosophy of the Organism: The Gifford Lectures Delivered Before the University of Aberdeen*, London: A. and C. Black.
- Driesch, H., 1923. *實生論大旨 (Translation of The Problem of Individuality)*, 上海: 亞東出版社.
- Driesch, H., 1974 [first published 1924]. *愛因斯坦氏相對論及其批評初版.*, 臺北市: 臺灣商務印書館.
- Driesch, H. & Driesch, M., 1925. *Fern-Ost als Gäste Jungchinas*, Leipzig: F. A. Brockhaus.
- Kirby, W.C., 2006. China's Internationalization in the Early People's Republic: Dreams of a Socialist World. *The China Quarterly*, (188), pp.870-890.
- Kirby, W.C., 1997. The Internationalization of China: Foreign Relations at Home and Abroad in the Republican Era. *The China Quarterly*, (150), pp.433-458.
- Lodge, R.C., 1918. American Philosophical Association: Bibliography for Discussion on Mechanism Versus Vitalism. *The Journal of Philosophy, Psychology and Scientific Methods*, 15, pp.550-553.
- Lovejoy, A.O., 1909. Review: Hans Driesch, The Science and Philosophy of the Organism. *Science*, 30, pp.761-766.
- 丁文江, 2000. *丁文江学术文化随笔*, 北京: 中国青年出版社.
- 丁文江, 1925. 玄學與科學——評張君勱的『人生觀』. In *科學與人生觀*. 上海: 亞東圖書館, pp. 1-30.
- 傅統先, 1936. *現代哲學之科學基礎*, 上海: 商務印書館.
- 周谷城, 1928. *生活系統*, 商務印書館.
- 張典達, 2009. *北伐後至抗戰期間之意識型態建構: 國民黨官方哲學唯生論及其對手*. MA Thesis. 嘉義: 中正大學.
- 張君勱, 1925. 人生觀. In *科學與人生觀*. 上海: 亞東圖書館, pp. 1-14.

- 張君勱, 1921. 德國哲學家杜里舒氏東來之報告及其學說大略. *晨報*, pp.1-2.
- 朱謙之, 1926. *歷史哲學*, 上海: 泰東圖書館.
- 李石岑, 1926. *人生哲學(卷上)*, 上海: 商務印書館.
- 李石岑, 1933. *哲學概論*, 上海: 世界書局.
- 東方雜誌, 1923. *杜理舒專號*,
- 林宰平, 1925. 讀丁在君先生的『玄學與科學』. In *科學與人生觀*. 上海: 亞東圖書館, pp. 1-40.
- 梁啟超, 1963. *歐遊心影錄*, 香港: 三達出版社.
- 梁啟超, 1922. 研究文化史的幾個重要問題: ——對於舊著《中國歷史研究法》之修補及修正.
- 梁漱溟, 1924. *東西文化及其哲學*, 上海: 商務印書館.
- 瞿世英, 1928. *現代哲學*, 北京: 文化學社.
- 翁芝光, 1995. 論柏格森生命哲學對梁漱溟新儒學思想的影響. *江漢論壇*, pp.66-72.
- 胡適, 1994a. 科學的人生觀. In 耿雲志, ed. *胡適遺稿及秘藏書信*. 合肥市: 黃山書社, pp. 496-552.
- 胡適, 1925. 科學與人生觀序. In *科學與人生觀*. 上海: 亞東圖書館, pp. 1-42.
- 胡適, 1994b. *胡適遺稿及秘藏書信* 耿雲志, ed., 合肥市: 黃山書社.
- 費鴻年, 1924a. *新生命論*, 上海: 商務印書館.
- 費鴻年, 1924b. *杜里舒及其學說*, 上海: 商務印書館.
- 鄭先興, 2006. 新機主義文化史研究理論及其在中國的實踐. *上海財經大學學報*, 6, pp.18-25.
- 鈴木貞美, 1996. 「生命」で読む日本近代: 大正生命主義の誕生と展開, 東京: 日本放送出版協會.
- 鈴木貞美, 1995. *大正生命主義と現代*, 東京: 河出書房新社.
- 陳正謨, 1934. *現代哲學思潮*, 上海: 商務印書館.
- 陳獨秀, 1925. 科學與人生觀序. In *科學與人生觀*. 上海: 亞東圖書館, pp. 1-11.

陳立夫, 1932. *唯生論*, 重慶: 正中書局.

陳立夫, 1944. *生之原理*, 重慶: 正中書局.

龙国存, 2009. 杜里舒对张君勱“科玄论战”的影响. *西南大学学报(人文社会科学版)*, 3, pp.186-90.