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Chapter Three: China's Universities, Cross-Border Education and the Dialogue among Civilizations

By Ruth Hayhoe and Ji'an Liu

Introduction

In the second chapter of this volume, William Cummings writes about East Asia's rich and distinctive intellectual tradition, drawing on the work of the Japanese historian and philosopher, Shigeru Nakayama. He notes the emphasis on human resources and on economic and social priorities that have characterized the development states of East Asia. He then goes on to suggest that they are now moving beyond a century-long strategy of "catching up" with Western science to new possibilities of knowledge creation, especially in the sciences and technology.

This chapter focuses on the case of China and explores recent evidence of the move of its universities from a peripheral position in the global community to a more central one. Rather than addressing their potential for leadership in science and technology, which may well take time, we will consider some of the core characteristics of Chinese intellectual and institutional culture, which are likely to have an impact as China takes up a more active role in world affairs. Part one of the chapter gives an overview of three recent developments in the area of cross-border education, which signify China's rising academic influence: - the dramatic rise in international students attending Chinese universities, the establishment of a large number of international programs within Chinese universities and the creation of Confucius Institutes in collaboration with universities and other non-governmental organizations around the world. Part two looks at the history of modern universities in China in order to reflect on their institutional culture and ask what kinds of academic influences are likely to flow through these new channels that are opening up, and who they might contribute to re-shaping global intellectual culture. Part three considers some basic features of Chinese

epistemology, and suggests that China's greater centrality in global academic affairs might strengthen a dialogue among civilizations that enhances difference in face of what are often seen as the homogenizing influences of economic globalization.

Part One: The Rising Influence of Chinese Universities

An extensive literature has already emerged on China's move to mass higher education, with a dramatic rise in higher education enrolments from 3,729,000 or 3.4% of the age cohort in 1990 to 25 million students and 22% of the age cohort in 2006 (Ministry of Education, 2007).[1] The expansion has largely been publicly funded, though newly emerging private or people-run higher education institutions have contributed (including second tier independent colleges within public universities), making up more than 11% of the total enrolments by 2006[2]. The Chinese government has had a clear strategy of empowering a small number of top universities to take intellectual leadership, with the decision to select 100 for enhanced funding in the 21/1 project of 1993, then to further focus on a smaller number in the 98/5 project that was launched on the 100th anniversary of Peking University's founding in 1998. This project now offers greatly enhanced financial resources to 39 nationally prestigious universities. The intention is to enable these institutions to attain world class quality and standards and to be active on a global stage, while allowing the main burden of provision for the huge numbers of a mass system to remain with provincial and local institutions throughout the country. The difference in funding levels for these elite institutions is significant, showing the seriousness of the government's expectations for them to play a national, regional and even global leadership role.

One of the striking, yet little noticed, changes that has come about over these years is the rising attraction of Chinese universities as a destination for international students. Historically, Chinese universities have been in a peripheral position for more than a century, sending large numbers of students abroad for higher studies, and receiving

[1] The old statistics method only covered the enrollment in regular higher education institutions. After 1993, part time students and students in adult higher education institutions were added in. Currently, the number of the other types of students (students in military institutions, TV universities, self-study examination programs and diploma examination students) is brought into calculation. The new method transforms these numbers into full time equivalents. (Ji, 2003, 175-176).

[2] Calculated on the data from the 2006 Statistics Gazette of China's Educational Development. Retrieved March 23, 2008 from http://www.moe.edu.cn/edoas/website18/info29052.htm

a relatively smaller number of international students for study in China. The flows of students have tended to reflect the geo-political conditions of the times. Before 1949, the majority of Chinese students and scholars studied in Japan, Europe and the United States, with many returning to take up intellectual leadership in specific institutions and fields, others serving in government (Wang, 1966). After 1949, close to 8000 Chinese students and scholars were sent for higher study in the Soviet Union (Orleans, 1987, 188), while Chinese universities received students from such socialist countries as Vietnam, Romania, Yugoslavia, as well as a small but steady flow from African countries, under a national scholarship program that reflected China's solidarity with the Third World (Gillespie, 2001).

After Deng Xiaoping's opening up of China to the outside world in 1978, large numbers of Chinese students and scholars took up higher studies in the Western world, some under government sponsorship and many more at their own expense. While Chinese students mainly chose English-speaking countries, Western European countries and Japan up to the early 1990s, a recent trend has been towards a greater diversification of choice, including countries such as Russia, Malaysia, South Korea, Italy, Ireland, Poland, Spain and Thailand, with pragmatic considerations of preparing for employment in a global marketplace dominant (Science and Technology Daily, 2003). Meanwhile Chinese universities have continued to attract students from around the world, but numbers remained modest until most recently.

The total number of international students studying in China between 1979 and 2006 is estimated to be 1,034,040, while a total of 1,067,000 Chinese citizens have gone abroad for higher studies over the same period[3]. The balance between these two figures is interesting to note, and the real story lies in the huge increase in international students coming to China since the turn of the century. In 1991, the number of international students studying in China first surpassed 10,000, and by 2000, the number had reached 52,000. By 2002, this rose to 85,000 (Wang, 2005) and by 2005 the number increased to 141,087 and continue increasing to 195,503 by 2007 (the Ministry of Education, 2008a) international students in Chinese universities. This makes China the sixth most attractive destination for international students in the world, after the United States (590,167 for

[3] Numbers are calculated based on the data from each year's website of the Ministry of Education.

non-resident), the United Kingdom (with 394,624 for non-citizen or 318,399 for non-resident), Germany (with 259, 797 for non-citizen), France (with 256,518 for non-resident) and Australia (with 211,255 for non-citizen or 177,034 for non-resident) in 2005.[4] At present there are about 10,151 scholarships offered by the Chinese government to international students (Ministry of Education, 2008a). Between 2008 and 2010, the government plans to add 3000 new scholarships each year, in order to attract international students to study in advanced programs in China. This will enhance the attraction of Chinese universities for international students.

Where do these students come from? What do they study in China and how are they funded? Figures from China's Ministry of Education give the following picture. They come from 188 countries, and by far the majority are self-funded. Regionally, the geographic spread was as follows in 2007: 72.47% from Asia, 13.47% from Europe, 10.06% from the Americas, 3.03% from Africa and 1.07% from Oceania. An increasing number are coming for degree programs, with 34.89% studying for degrees in 2007 (Ministry of Education, 2008a) up from 29% in 2004. By far the majority of international students are enrolled in programs related to Chinese language and culture, 70.6% in 2006, with another 12.5% studying Medicine (more than one third in Chinese traditional medicine). However, a significant number of students were enrolling in fields such as economics (4.5%), management (3.7%) and engineering (3.6%) in 2006 (China Education Statistics Year Book, 2007).

As China's leading universities seek to ensure world class quality in their programs, international students are being attracted to a wider range of fields. In 2005, Tsinghua University had a total of 519 international students applying for entrance to 33 undergraduate programs, an increase of about 100 over international applicants in 2004 (Beijing Examination News, 2005). Peking University had over 1400 international students in long-term programs[5] in 2004, covering fields such as economics, law and

[4] These data are cited from the OECD website. The number refers to the total number of students in all educational programs at tertiary level in each reporting country. International students have two different statistical categories in these countries—non-citizen students and non-resident students. Some countries report the numbers in both categories, while others only report numbers in one category. Retrieved March 23, 2008 from http://stats.oecd.org/wbos/default.aspx?DatasetCode=RFOREIGN

[5] Programs require more than six months study.

management, as well as the more traditional choices of Chinese language, literature, history, philosophy and architecture (Liaowang News Weekly, 2004).

Clearly the attraction of Chinese universities to international students is still largely in the areas of language, culture and indigenous knowledge traditions, such as traditional Chinese medicine, yet there are already indications of a broadening of knowledge areas. It will be some time before science and technology fields dominate, as China is not yet in the position that Cummings suggests Japan and South Korea have reached. Our focus in this chapter will therefore be on the cultural and scholarly ethos that international students will be exposed to in China, and its likely impact on the global community of scholarship, rather than on leadership in science and technology research.

The second significant development of recent years has been the creation of joint programs between Chinese universities and universities in the rest of the world. This makes it possible for Chinese students to gain foreign degrees, while doing the majority of their study in China. It also gives Chinese university faculty the opportunity for teaching collaboration with international partners, as they teach parts of most collaborative programs, with the rest taught by international faculty who travel to China. The first such joint program was an MBA, which started in 1995. After China joined the WTO in 2001, more and more such programs were developed, with a count of 165 higher education programs granting foreign degrees by 2004. (Ministry of Education, 2004)

The Chinese Ministry of Education requires all such programs to be jointly run with Chinese universities, and it is largely China's most prestigious institutions, those funded by the 21/1 and 98/5 projects, which participate. On the international side, there are some highly reputed universities, while others are less well known. Subject areas include management (36%), English language (19%) information technology (13%), economics (10%), arts (5%), education (3%) and a range of other areas (14%)[6] (Ministry of Education, 2004). Currently, those programs approved before the implementation of new regulation on Sino-foreign Cooperative Programs are under review by the Ministry of Education. Some programs have been approved a second time, but the work is still in process. Nine new cooperative branch schools (including one cooperating with a

[6] Percentages have been calculated based on the data from Ministry of Education (China) website. Retrieved December 15, 2005 from www.moe.edu.cn/edoas/website18/info8780.htm - 7k

university from Hong Kong) and 19 cooperative programs (including two cooperating with universities from Hong Kong) have been newly approved by the MOE since the implementation of the new regulation (Ministry of Education, 2008b).

This kind of activity gives Chinese universities the opportunity for close cooperation with international counterparts and an intimate understanding of their programs and degree requirements, while still maintaining the integrity of their own curriculum, pedagogical approaches and degree requirements. It also provides opportunities for them to reflect on how they may extend their own programs to an international arena. So far, this kind of activity is limited, but there are some interesting beginnings. The Beijing University of Traditional Chinese Medicine had been running a five year degree program in Chinese medicine with Middlesex University in England since 1997 (Beijing University of Chinese Medicine, 2007). Beijing Normal University has had a Bachelor of Arts in Chinese Language and Literature in Singapore since 1999 (Singapore Institute of Management Open University, 2007). The Beijing Language and Culture University has set up three overseas branch schools in South Korea, Singapore and Thailand (Beijing Language and Culture University, 2007). Shanghai Jiaotong University has recently opened a campus in Singapore (Shanghai Jiaotong University, 2007), and Tongji University is considering setting up a campus in Osaka, Japan. (Yomiuri Shimbun, 2007) We can expect more such developments as Chinese universities become more active on a global stage.

The most notable way in which China is reaching out culturally and intellectually at the present time is through the establishment of Confucius Institutes around the world. This has been the first time in the modern period for the Chinese government to establish a significant cultural presence around the world. Confucius Institutes are sponsored by the China National Office for Teaching of Chinese as a Foreign Language under the Ministry of Education, which has recently been renamed the Office of Chinese Language Council International. The program was first announced in 2003 and the first Confucius Institute opened in South Korea in November of 2004. By the end of 2007, more than 190 such institutions had been given approval in more than 50 countries and regions around the world. The ambitious plan is to establish 500 such institutions and programs by 2010

(Ministry of Education, 2008c). The main focus of these institutions is on the teaching of the Chinese language, with some emphasis also on cultural activities.

There are two significant features of this Chinese initiative. The first is the use of the name Confucius, signaling a highly symbolic decision on the part of China's leadership to promote its classical civilization, alongside of its recent economic and geopolitical achievements. Ever since the May 4th Movement of 1919, Chinese progressive thinkers and leftwing leaders have criticized Confucianism as a major obstacle to modern development. Subsequently, China's Communist regime sponsored movements of extreme repudiation of all aspects of the Confucian heritage, most notably during the Cultural Revolution of the 1960s and 1970s. It is thus quite a dramatic change, for China's present government to uphold the name of this pre-eminent classical philosopher and educator as an icon of Chinese civilization and an important figure in China's modern identity.

The second remarkable feature of this new cultural diplomacy is the organizational approach. One might have expected the establishment of government-sponsored cultural offices in different regions of the world, parallel to such organizations as the Japan Foundation, the British Council, the Goethe Institute, the Alliance Française or the United States Information Agency. This has been the approach used by most OECD countries in promoting their culture and the teaching of their languages around the world. The Chinese government has taken a rather different approach, however. It has offered the title of "Confucius Institute" or "Confucius Academy" as a kind of franchise to universities or other cultural institutions in countries around the world, with specific terms to be negotiated for the establishment of each individual institution (Yang, 2007).

Chinese diplomatic offices around the world have endeavored to attract well respected universities as partners in the setting up of Confucius Institutes, and have been successful in many cases – including such European universities as London, Manchester, Rome, Stockholm, and the Free University of Berlin, such Australian universities as Melbourne and Western Australia in Perth, and such American universities as Hawaii, Arizona State, Maryland, Rutgers, Kansas and Massachusetts, among others. In many cases, these universities have created links with partner universities in China, and then planned the approach and activities that will characterize their programs. The Chinese

government provides modest funding to support language teachers and language programming materials, but the Confucius Institutes are intended to become self-funded over time, through the programs they develop.

This is a very recent initiative, and it remains to be seen how these institutions will develop, and the degree of success they will have in promoting the teaching of the Chinese language. It will also be interesting to see whether and how they will develop cultural programming that could make China's education and civilization more widely understood. The fact that the organizational approach is so flexible, with many institutes under the leadership of major universities that have their own Sinological programs, suggests that there may be a wide variety of outcomes in different contexts. Given China's image as a rather monolithic, centralized and controlled socialist country, this approach to international cultural diplomacy is surprisingly open. It holds promise of a more substantive involvement of universities than has been the norm in international cultural diplomacy. On the other hand, some prestigious Western universities have been unwilling to host Confucius Institutes because of concerns over academic freedom, and reluctance to enter into this kind of relationship with the Chinese government.

Will any of the universities now establishing Confucius Institutes around the world take up the vision of Sinological scholars such as Tu Weiming at Harvard, Yu Ying-shih at Princeton and William Theodore de Bary at Columbia for Confucianism as a philosophical resource for the world? Will they promote Confucianism in ways that respond constructively to some of the dilemmas of the Enlightenment heritage and foster new forms of transformative thinking in the 21st century? It is probably too soon to answer this question, but it is notable that some of the universities establishing Confucius Institutes, such as University of Hawaii, are well known for their research in Chinese philosophy.

Part Two: China's Universities – the Institutional Culture

In his chapter for this volume, Cummings has noted several intriguing features of Japanese universities, which he sees as important in the present shift towards scientific and technological leadership in East Asia. He has pointed to the particularly close relationship between national universities and government in Japan's "development

state," and how this has created conditions for universities to gain significant support for scientific research from industry as well as government. He has also highlighted an interactionist view of scientific research, which assumes that knowledge advances may emerge from either basic or applied science. This synergic relationship between pure and applied science contrasts with the more linear Western view, where basic research is viewed as essential to nurturing advances in knowledge, which are then applied to health, agriculture, industry or other areas. He has further discussed the differences between the documentary traditions of knowledge in East Asia and the rhetorical ones of classical Europe.

In this second section of our chapter, we will address the institutional features of the East Asian knowledge tradition, then in the third section we will turn to basic differences in epistemology and reflect on how those may shape East Asia's global cultural relations during a period of dialogue among civilizations. While Cummings' focus is on Japanese higher education, we will reflect on Chinese higher education, and the implications of its move from a peripheral to a more central position in global scholarly circles. Our primary interest here is on understanding its institutional ethos, since this may begin to exert some influence through the kinds of cross-border educational activities described in part one.

Center periphery theory has been widely used to analyse the dilemmas of domination and dependency that faced higher education historically in Asia (Altbach and Selvaratnam, 1989, Altbach, 2001). Given the exigencies of colonialism or the pressures to adopt Western science for self-strengthening, most countries had little choice but to adopt a Western model of the university, whether under colonial influence, or in their efforts to resist colonialism through projects of self-strengthening. This model was derived originally from the European medieval experience and then had been transformed in the 19th century to the needs of emerging European nation states. There have been interesting analyses of how the disciplines of knowledge developed in the 19th century European university became a universal norm (Wallerstein, 1984, Chapter 17), and how the values of autonomy and academic freedom that characterized the European tradition have created tensions when adopted in difference cultural and political contexts (Caston, 1989).

It has often been stated, particularly by Philip Altbach, that no viable alternatives to the university have emerged in the modern period, and that all modern institutions of higher education, with the possible exception of Al-Azhar in Cairo, have common roots in the European historical experience (Altbach, 2006, 121-122). Some reflection on the East Asian experience, however, might lead us to ask whether that assertion needs to be qualified, at least with reference to one important strand in the modern European university. It is seldom noted that the transformation of the medieval universities of Europe into institutions that could serve in the building up of modern nation states, particularly in France, Austria and Prussia, was profoundly influenced by a Chinese or East Asian model of higher learning – namely the civil service examination system (Teng, 1942-43). Jesuit missionaries of the 17th and 18th century brought to Europe admiring accounts of how a secular Chinese government ruled by the ordering of knowledge, and by the selection and appointment of scholar officials through a meritocratic system of examinations (Llasera, 1987).

Guy Neave has differentiated between the Saxon and Roman models of higher education in the European context, and shown how the medieval universities of Europe lost their status as legal persons and became absorbed into modern bureaucratic structures of state in Prussia, Austria and France of the 18th and 19th centuries (Neave, 2001, 42). As higher learning became integrated into new state bureaucracies, written examinations were adopted to select an elite in the main knowledge areas who could serve these newly emerging nation states. Up to the present time the tradition of professors as civil servants, and universities as a part of the state bureaucracy have remained characteristic of what Burton Clark has defined as the "continental European mode" in his characterization of contrasting types of academic authority (Clark, 1978).

The idea of the "development state" which Cummings introduces in Chapter Two, may thus have played a significant role in European history, and certain features of the modern Western university might be seen as more East Asian in origin than European. In discussing the establishment of the University of Tokyo in Japan during the 1860s, Shigeru Nakayama saw the model as actually owing more to the Chinese bureaucratic tradition than to the German and French university models which were consciously emulated by Japanese planners (Nakayama, 1989). Motohisa Kaneko makes the same

point in a recent reflective article on the history and reform experiences of Japanese higher education over the whole modern period (Kaneko, 2004).

Similarly China's early modern universities were strongly influenced by the Japanese model, though they later moved towards greater emphasis on autonomy and academic freedom in the face of repeated failures to develop a viable modern state after the end of the last dynasty in 1911. Both American and continental European models had significant influence on modern Chinese universities, but these took their own unique form and developed their own ethos under the difficult days of the Japanese occupation (1937-1945), the second world war and the civil war (1945-1949). Whatever may have been its faults, the Nationalist regime that took control in 1928 gave significant leeway for its modern universities to establish an ethos of their own.

Ironically, it was with the successful Communist revolution of 1949, that the "continental" mode became fully ensconced in modern Chinese higher education, under the influence of the former Soviet Union. A highly centralized system of higher education was established, with a range of specialized national universities under the Ministry of Education, as well as the major industrial, agricultural, health and finance ministries. It was coordinated by a state planning commission, which ensured all graduates were assigned appropriate cadre positions in the new socialist state. The system had considerable success and China was able to make remarkable achievements in industrialization by the late 1950s under what could be described as a socialist version of the "development state." After the disruptions of the Great Leap Forward (1958-1960) and the Cultural Revolution (1967-76), this bureaucratic model was restored and gradually reformed as China opened up to the world in the early 1980s.

With the reforms of 1993, Chinese universities were given the status of legal persons, and they gradually gained increasing autonomy with regard to funding, curriculum, student recruitment and international activity. A parallel to the reforms now underway in Japanese national universities, requiring them to become independent administrative entities (Kaneko, 2004, Murusawa, 2002), had thus already taken place in China a decade earlier.

This brings us to a second element in the Chinese classical tradition, one that had less resonance in Japanese educational history. The shuyuan or classical academies were

independent centres of learning, first established during the Tang and Song dynasties, that functioned for over a millennium as a kind of counter force to the civil service examination system. In his magnificent overview of Chinese educational history, Thomas Lee notes how the struggle of these institutions against the authoritarianism of Chinese imperial bureaucracy demonstrated the importance of a "public sphere" in the Chinese context, and suggests they can be seen as an "embryonic" civil society (Lee, 2000, 14). The shuyuan or academies thus had a balancing role, as Chinese scholars withdrew from public service at certain times, and took up the task of critical oversight of their political masters.

After many years of reflection on why the core values of the Western university, autonomy and academic freedom, did not fit well in the Chinese context, it became clear that Chinese knowledge traditions were more suited to a notion of autonomy as self-mastery, rather than autonomy as freedom from government intervention. Chinese scholars have always had a strong sense of their responsibility to serve the nation, an assumption that fits closely with Cummings' definition of the "development state." At the same time, this has not meant the university was wholly subordinate to the state, rather that its scholars felt a responsibility for developing a vision of their own, which could be conveyed to national leaders in the form of criticism, advice or direct service.
There are two widely used Chinese terms for autonomy, one meaning self-government (*zizhi*), used for the autonomous regions within China, and the other meaning self-mastery (*zizhu*), which is usually used to express the concept of university autonomy. The university supports the state, yet its scholars are responsible as "masters" of their own domain, to develop their own independent visions, insights and ideas (Hayhoe and Zhong, 2001).

The concept of academic freedom has also been a difficult one in the Chinese context, in part due to the restrictions of a socialist regime, but also due to Chinese traditions of epistemology, which have privileged applied knowledge, holistic knowledge and knowledge that is socially useful, over theoretical and specialist canons of knowledge. In the European context, particularly the German, academic freedom was associated with pure theoretical knowledge, in the understanding that scholars could be as critical or iconoclastic as they wished, as long as they reserved their questionings to the

realm of basic theoretical knowledge and did not engage in political activism. In the French context, academic freedom was associated with the highly specialist forms of knowledge that were recognized in the prestigious system of Grandes Ecoles, and the assumptions were that scholars were free to raise any question within their specialist field of knowledge. Neither of these assumptions fitted the American context well. They have been even less acceptable in a Chinese context that has favoured applied knowledge and integrated understanding, and has expected high standards of social and political responsibility from its scholars. This observation can be linked to Cummings' point about an interactionist as against a linear understanding of the relationship between basic and applied sciences.

For these reasons, the notions of intellectual freedom and academic self-mastery may better represent the institutional culture of Chinese universities than academic freedom and autonomy. It is these values which are likely to be communicated to the rising flood of international students coming to China, as well as through China's cross border programs and the establishment of Confucius Institutes around the world. As China's universities move from the periphery towards the center, it may gradually become more obvious how the East Asian scholarly tradition contributed to the development of modern universities in 19th century Europe. By the same token, their experience of building upon while at the same time moving beyond the constraints of this bureaurcratic tradition may open up new avenues for universities as they seek to contribute in independent ways to a global future.

Within the literature of globalization, there are lively debates over whether nation states are losing control over their universities and education systems in face of global economic forces or whether economic globalization has become a rationale for them to assert ever greater control (Vaira, 2004). Many nations are focused on supporting their top institutions to achieve world class status and thus increase the nation's economic competitiveness, and this may well involve a greater measure of control. It thus remains important for universities to nurture a strong sense of independent identity and integrity, as institutions responsible not only for advances in science, that may contribute to economic progress, but also for discovering new solutions to human, social and environmental problems in the local, national and global community. Cummings has

noted the important role of civil society in shaping socially responsible research at Japanese universities and this is clearly an important aspect of the East Asian tradition.

The ethos of scholarship that has been shaped by China's scholarly traditions has subtle differences from that of the dominant Western model. It is not easy to describe and is deeply embedded in the historical context. In order to bring it to life in concrete and vivid ways, one of us recently published a book of portraits of influential Chinese educators (Hayhoe, 2006). Five of the eleven educators profiled in this volume have had tremendous influence in higher education in China over the past several decades. The stories of two of them may serve to illustrate aspects of these core values of Chinese scholarship.

One of the most remarkable of China's university leaders, Zhu Jiusi, developed his scholarship essentially from the experience of establishing a new university of science and technology in the 1950s, and from his own acute observations of excellent university presidents and secondary school leaders during China's Nationalist period.
Towards the end of the crippling Cultural Revolution, Zhu developed a vision for his university, which enabled it to move quickly into the top ranks of leading Chinese universities. The most basic element in his vision was that of attracting the best possible faculty from all over the country – an unparalleled opportunity, as many professors from top universities had been banned to the countryside and were glad to respond to his call. The second element in his vision was to broaden the curriculum beyond the engineering sciences, to include fields such as philosophy of science, scientific journalism, higher education and basic science fields which had originally been allowed only in comprehensive universities under the Soviet model.

The third element of his vision was to nurture active research programs in areas of strength, and seek funding from wherever possible, including national ministries in related areas, and industry. His sense was that excellent research should lead and invigorate teaching. These initiatives were far in advance of government thinking in China at the time, and Zhu's leadership developed into a highly influential scholarship of practice that opened up new vistas for Chinese universities after the Cultural Revolution. His focus on the importance of human resources has a close resonance with Cumming's comments on this aspect of the East Asian ethos, and his university is now one of China's

leading centres for research in computers and information technology, among other fields (Hayhoe, 2006, 129-143).

The second educator who exercised important leadership in higher education was a woman physicist, Xie Xide, who earned a PhD in solid state physics in a brief two and a half years at MIT in the early fifties, then returned to serve China's development as a professor of physics at Shanghai's prestigious Fudan University. During the Cultural Reovlution, Xie was locked up by rampaging Red Guards in her own physics lab, yet shortly after the end of this destructive phase in Chinese politics, she willingly took up leadership as vice president of Fudan university and subsequently became the first woman president of a major Chinese comprehensive university. As president of Fudan, she was a vigorous academic leader during a time when major World Bank projects were making possible the renovation of science labs and the development of new approaches to research and teaching in the basic sciences.

In addition to her leadership of the university and her own field of physics, Xie undertook a wide range of leadership roles, from local to national to global. She was chairman of the Shanghai peoples political consultative committee for many years, as well as a member of the Central Committee of the Chinese Communist Party, and active in three of its important congresses, in 1982, 1987 and 1992. She initiated and developed dynamic relations with the United States, receiving two presidents in Shanghai, Ronald Reagan while she was president of Fudan, and Bill Clinton in her capacity as Chair of the Shanghai People's Political Consultative committee. More importantly, she led the development of China's most high profile centre for Sino-American relations, including fund raising for a new building and a range of significant research programs (Hayhoe, 2006, 195-203).

What is clear in Xie's approach to scholarship is a strong sense of social responsibility as a scholar, a call to leadership not only in her field of physics, but in local and national politics, as well as in international relationships that were of crucial value to China's economic development and political reform. Once again it was self mastery and a high degree of intellectual freedom and initiative that marked the work of this outstanding Chinese scholar.

Part Three: Centre/Periphery or a Dialogue among Civilizations?

Part One of this chapter has shown how Chinese universities are moving from a peripheral status, characterized by reliance on external models, to a more central place in global affairs, with a rising tide of international students and the beginnings of programs designed to offer China's cultural and knowledge resources to a wider world. Part Two has explored the institutional culture of Chinese universities and its roots in classical Chinese civilization. It has also shown how this institutional culture left a lasting historic impact on the higher education systems of continental Europe, in the period of nation building during the 18th and 19th centuries.

In this third and final section of the chapter we turn to East Asian epistemological traditions, and ask how a rising East Asian university ethos may contribute to the global community. Rather than seeking to become a new centre and re-shape centre-periphery relations, we suggest that East Asian universities will wish to stimulate a dialogue among civilizations, that recognizes and values difference, and does not impose their own knowledge standards as universal. They will thus encourage forms of cultural localization that can offer a vigorous response to the homogenizing forces of economic globalization. Dialogue rather than domination is likely to characterize their relationships with universities in other regions of the world. This fundamental orientation towards epistemological tolerance may be rooted in the distinction Cummings has discussed in Chapter Two between the documentary tradition of knowledge in East Asia and the rhetorical tradition in Europe.

In his illuminating study of *Academic and Scientific Traditions in China, Japan and the West*, Shigeru Nakayama elucidates some of the basic differences between East Asian approaches to scholarship and those of the West. China's documentary tradition emphasized a careful recording of all knowledge in an orderly and cumulative way, and paid special attention to what was unusual, particularly astronomical phenomena. It was a tradition that depended on an abundant supply of paper from a relatively early period, that proliferated written records and that encouraged the use of written examinations as evidence of the mastery of knowledge. "East Asian scholarship began with the assumption that mutability and change were the ways of the world, recognized the

legitimacy of the extraordinary, as well as the normal, and sought within that framework to create a suitable place for any and everything" (Nakayama, 1984, 20).

By contrast the Graeco-Roman tradition was a rhetorical one, emphasizing disputation and logic, taking an interest in the causes of things, and paying special attention to the laws that ordered the natural universe. It was a tradition that encouraged mobility, that flourished in the absence of abundant supplies of paper and that established various types of oral examination for the purposes of demonstrating the mastery of knowledge. The emergence of modern science in the 16th and 17th centuries resulted from two innovations, Nakayama suggests - the application of a mechanical metaphor to nature with the use of mathematics to test it, and the invention of purposeful experimentation. Both were closer in spirit to the Western tradition of scholarship than the Chinese (Hayhoe, 1998, 2-3).

It was this Western model of natural science that has dominated the modern university, with a positivistic tradition that led to most fields of human and social knowledge becoming legitimated as social sciences, and the methodology of the natural sciences functioning as a benchmark for universally uniform approaches to the advancement of knowledge. Few would deny the contributions of modern Western science to economic development, democratization, health and a range of related areas, bringing benefits to many societies around the world. At the same time, confidence in the absolute authority of this approach to science, as the only valid epistemology and methodology, has gradually waned in recent decades. Hans Weiler expresses this in the following way:

> The second half of the 20th century has seen a major transformation of the prevailing order of knowledge production. Both the criteria by which we judge the validity and adequacy of knowledge (the philosophical or epistemological construction of knowledge) and the structural arrangements under which knowledge is being produced (the social and institution construction of knowledge) have been and continue to be profoundly challenged in our time. These challenges originate in different parts of the world and from widely different premises; taken together, however, they represent an extraordinary

> moment of transition in our concepts of what does and does not constitute "knowledge." (Weiler, 2001, 25)

A range of feminist and postmodern approaches to knowledge (Stromquist and Monkman, 2000, Waters, 1995) have identified new forms of pluralism, that recognize the possibility of diverse and even contradictory views and understandings contributing to human well being. Huntington expressed this well in his comment that "the people's and governments of non-Western civilizations no longer remain the objects of history, as targets of Western colonialism, but join the West as movers and shapers of history." (Huntington, 1993, 23) With the delineation of 2001 of the UN's Year of dialogue among civilizations, UNESCO described this as "an essential stage in the process of human development that is both sustainable and equitable. It humanizes globalization and lays the basis of an enduring peace, by nurturing conscience and a common base for human existence rooted in history, heritage and tradition." (Hayhoe and Pan, 2001, 1).

China's epistemological traditions have been diverse and wide-ranging. Confucian scholarship tended to focus on an understanding of history, of human inter-relationships and of issues of good governance, from the local to the global, while at the same time recognizing the importance of applied knowledge in medicine, agriculture, irrigation, engineering and related areas for human flourishing. Daoism had less interest in human organization but nurtured traditions of precise observation of nature and exploration of various aspects of the natural universe. The relationship between these two traditions has often been seen as a kind of "unity of opposites" in which diverse ways of viewing the world are tolerated, and there is no expectation of a logical reconciliation between them. The copious records of a paper rich society, which had also developed printing hundreds of years before Europe, give evidence of many remarkable scientific achievements, some of which were contributing to European development up to the 17th century (Needham, 1978, Blue, 2001, 280-282).

In reflecting on how Chinese universities might contribute to human civilization and well-being in the present period, the president of a leading institution recently selected a telling phrase from the Confucian classics: *he er bu tong*, which might be translated "harmonious co-existence within diversity," or "harmony but not conformity."

He suggested that traditional Chinese culture might become a spiritual force in the third millennium, as he reflected on the mission of contemporary Chinese universities. A world class university in China should be good at learning from the excellence and traditions of universities elsewhere, at the same time as creating its own unique ethos, rooted in its own civilization. Such a university would stress international exchange and cooperation in teaching and research, integrating knowledge in areas such as world history, geography, international finance and trade into its curriculum. It would try to be a visible channel for attracting the talented and absorbing the very best elements of diverse cultures from around the world (Hayhoe and Zha, 2004, 91-92).

Prominent Chinese philosopher, Tang Yijie, commented on this same phrase [*He er butong* (Harmony but not conformity)] from the *Analects* of Confucius in the following way: "*He* (harmony) emphasizes the interaction and adjustment among different events or things which are dynamically interdependent, restraining and supporting each other, forming the impetus for evolution and development. *Tong* (conformity) would suffocate the vital force promising further development." (Tang, 2006). The highest ideal in Chinese culture, according to Tang, is that "everything on earth co-exists without hurting any other thing and diverse ways go in parallel without being conflictual or mutually exclusive." (Tang, 2006).

In noting this orientation towards a humanistic pluralism in Chinese epistemology, we are suggesting that Chinese universities may be more comfortable with the idea of a dialogue among civilizations as the frame for their relationships with universities around the world than that of moving to the center of a center/periphery relationship. At the same time, we are not suggesting that Chinese approaches to epistemology should be understood as consonant with the kinds of relativism often associated with postmodern approaches to knowledge. Cummings noted that the documentary tradition "trains the mind to build a strong foundation in basic principles, to carefully assemble all of the relevant information, and to take small first steps of discovery as the foundation for a later stage of boldness." (Chapter Two, page number?)

China's scholarly tradition is a cumulative one, built up over centuries of careful observation and documentation, and responsive to important inputs from around the globe. This can be clearly seen in Tu Weiming's approach to introducing Confucianism

as a way to build positively on the European Enlightenment heritage, rather than as either oppositional or an alternative. In a thoughtful piece entitled "Beyond the Enlightenment Mentality," Tu identified the core values of the Enlightenment as liberty, equality, human rights, the dignity of the individual, respect for private, government by the people and due process of law. He summarized these values in the concepts of progress, reason and individualism and noted the human potential for global transformation that has become evident as modernization has carried these values around the world. At the same time he identified a dark side of the enlightenment, as progress, reason and individualism have turned into self-interest, expansionism, domination, manipulation and control. Confucianism has the capacity to contribute to a new idea of education, he suggests, an education for the sake of the self that encompasses yet at the same time supersedes individualism, and a new vision of human community, which may overcome the genetic constraints of the enlightenment vision of rights based liberalism (Tu, 1998).

Cummings has shown how East Asian universities have been developing new models of scientific innovation and collaboration, and there is every reason to believe that Mainland Chinese universities and scientists will play a significant role in this shift. Most recently the OECD figures have indicated that China's investment in scientific research is second only to the USA, with $136 billion US dollars committed in 2006, compared to 130 billion for Japan and 330 billion for the U.S. (OECD, 2007). Our focus in this chapter, however, has not been on scientific leadership, rather on the broad parameters of the Confucian scholarly tradition, both its institutional culture and its epistemological characteristics. Our purpose has been to reflect on the ways in which these traditions may inform China's universities up to the present, and may have broader influence as China's universities attract an increasing number of international students, and establish a wider range of cross border programs, including Confucius Institutes and other emerging international educational initiatives.

Conclusion: Chinese Universities in the Global Community

China has a long journey ahead, before its universities can even dream of the kinds of influence exercised regionally and even globally during periods of traditional flourishing such as the Tang dynasty (618-907 CE). However, the first section of this

chapter has provided clear evidence of a significant shift in China's educational relations with the global community. More and more international students are coming to its universities, and a global Chinese educational and cultural presence is coming into being, through newly established Confucius Institutes and Chinese university programs and campuses that are being established collaboratively around the world.

We can thus anticipate over time that Chinese university leaders and scholars will begin to exercise some leadership in global academic circles. The values they bring to this task can be understood as arising from the melding of Western traditions of university autonomy and academic freedom with Chinese values of self-mastery, social responsibility and intellectual freedom, that has taken shape over a century of modern higher education development in China. The concept of university autonomy has been embraced and given legal recognition in China's 1998 higher education law, yet it is seen by Chinese scholars less as a protection from government interference than as a space in which they are expected to exercise initiative and leadership with a high degree of foresight and social responsibility as well as scientific value. Given a global environment in which governments are tending to manage higher education in ways that enhance national economic competitiveness, this vision of a proactive yet critical relationship between universities and governments may serve to balance the emphasis on rights and negative freedom of the Western tradition. A melding of the right to independence from direct governmental intervention and the responsibility for action committed to the highest good of nation and global community could stimulate universities to become significant agents of social transformation.

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