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A Chinese Puzzle

RUTH HAYHOE

Introduction

Unlike most scholarly articles, this one began as a personal story, one in which my practical involvement in Chinese education led me to the literature of comparative education. My long search through this literature for concepts and tools of analysis that would illuminate issues of Chinese education seemed an appropriate theme for the Eggertsen Lecture (1988), which was the basis of this article. In reflecting on the theme of China research and comparative education, it came to me that the decade I had spent living these fields had been both a puzzle-making and a puzzle-solving experience. While a Chinese puzzle may have certain unique characteristics, puzzle solving is a generic activity, one that might well characterize all work done in the social sciences. Hence, my title is not intended to revive the old stereotype of the inscrutable orient but simply to crystallize both culture-specific and more general aspects of comparative education research.

The paper has three main parts, each representing a stage in my intellectual journey. From a comparative-historical approach to educational research, I move to a consideration of world-order models of thinking and their relevance for comparative research, concluding with a tentative discussion of aspects of critical theory that might be applied to international educational activity. In each case, these perspectives have been tried out in specific research tasks that left me with certain unanswered questions. It is these questions which I hope may provide common ground for discussion with colleagues working on diverse regions and issues. But I begin with an early and, at the time, untheorized life experience that first gave me the sense of a puzzle to be solved.

In 1967, I moved to Hong Kong as a young university graduate and found a position in an Anglican girls' secondary school. During my 11 years in that school I found myself fascinated by the interplay between the Canadian vision I brought to secondary education, the consciously British-grammar-school organizational style of the school with its prefects and its house system, and the fundamentally Chinese characteristics of school life under a traditional Chinese headmistress and a staff and student body almost entirely Chinese. The blue cheongsam, or Chinese longdress, which was the school uniform, was the most evident symbol of a deeply

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felt Chinese school culture. It was the experience of these three cultures within one school, together with the opportunity I had to live for 6 years within a Chinese family, that aroused my curiosity to explore the cultural roots of Chinese life and thought and their expression in educational patterns and institutions. This was the way the Chinese puzzle first presented itself to me.

When I had the opportunity to take a course in comparative education as part of a certificate in education program at the University of Hong Kong in 1975, I sensed that here was a body of literature that could provide me with the tools for the China research that interested me more and more. With the fall of the Gang of Four in 1976, it became evident that what was needed was not merely a study of Chinese culture and education within its own context but also a study of the cultural and educational dimensions of China's reentry into the world community after a decade of total isolation during the Cultural Revolution and nearly 3 decades in which there had been little interaction with the Western world, though considerable involvement with the Soviet block and the Third World. This opening of the door to the West threw up new aspects of the puzzle. I decided that I wanted both to participate in the process of China's opening up and to study it. By 1978, participation was relatively easy, and two of the happiest years of my life were spent teaching in the Department of Foreign Languages and Literatures at Fudan University in Shanghai. Studying the process has been a much more difficult challenge, one that led me to spend nearly 5 years doing master's and doctoral work in the Department of Comparative Education at the University of London Institute of Education.

Basically, I felt that there were two important points of reference that could shed light on Chinese education and the knowledge aspects of China's reintegration into the world community. One of these was history, especially China's educational history from the period of 1840 to the present, when a whole series of attempts were made to graft what was desirable in foreign educational patterns and values onto a Chinese tree whose roots went back over 2,000 years. The second reference point was the experience of other developing countries, particularly in the postcolonial era, as they have tried to build an autonomous national and cultural identity yet draw on needed resources offered by national and international aid agencies. Though China has always been seen by sinologists as *sui generis*, it actually shares many of the problems of other Third World societies. It may never have been a colony, yet Sun Yat Sen called it a hypocolony because of the multiple and overlapping forms of imperialist aggression experienced in the nineteenth and early twentieth centuries. The task of finding theoretical tools in the international and comparative development literature for the study of China's educational open door

was even more daunting than learning how to use the historical reference point. That, I think, was the reason I chose to attack the historical questions first, making them central to my doctoral thesis, and to leave the developmental ones to postdoctoral research.

History and Comparative Education

Although comparative education likes to trace its roots back to the early positivism of Jullien, with his plan for a science of education that would parallel Auguste Comte's science of society, actually it was scholars of a historical-philosophical bent, such as Michael Sadler, Nicholas Hans, and Isaac Kandel who laid its intellectual foundations. The positivism of such universalist notions as international development, which has become part of an unquestioned commonsense vocabulary in recent decades, was foreign to these scholars. They were interested, however, in discovering within national cultural contexts the causes that lay behind particular educational phenomena. For Nicholas Hans, religious and secular idea systems provided the most important key for understanding what happens within schools and classrooms, though such natural factors as race, language, geography, and economy also had to be taken into account.¹ For Kandel, it was the national political culture that exercised the most important determining influence over educational administration and classroom culture.²

While I never had the pleasure of meeting Dr. Hans, I spent many hours sitting under his photograph in the section of the library devoted to his memory at the University of London Institute of Education. His careful historical scholarship illuminated many educational concepts and phenomena for me by linking them to their particular context in time and space. His emphasis on historical particularity gave a certain relativism to my understanding of comparative education. In the contemporary period, I see the work of Le Than Khoi, with its attempt to build a general theory of education that draws on the comparative history of human civilization, rather than on its short span since the industrial revolution, as a promising revitalization of the historical-philosophical approach to comparative education.³

In my case, it was a very specific historical puzzle that launched me into research on Chinese higher education. In an incident that took place

¹ It is fascinating to note how Hans's definitive book, *Comparative Education* (London: Routledge & Kegan Paul, 1982), gives 84 pages to natural factors, 150 pages to religious and secular factors, and, finally, 70 pages to a comparative analysis of schooling systems in England, France, the United States, and the USSR.

² Isaac Kandel, *The New Era in Education* (Cambridge, Mass.: Houghton Mifflin, 1955).

³ Le Than Khoi, "Towards a General Theory of Education," *Comparative Education Review* 30, no. 1 (February 1986): 12–29.

in 1903, I found in microcosm what seemed a central dilemma in the whole modernization process for Chinese higher education. The story began with a Chinese scholar whose family had been Catholic since the time of the sixteenth century Jesuit missionary Matteo Ricci. In 1852, Ma Xiangbo entered one of the first Jesuit colleges to be established after the return of the Jesuits to China and mastered the philosophy, Latin, and mathematics of a French academic curriculum, adding to this continued studies in classical Chinese. In 1870, he joined the Jesuit order and in 1872 became headmaster of the college, one of China's first modern secondary schools. Shortly thereafter, however, he left both the school and the order owing to French Jesuit dissatisfaction with the continuing emphasis he placed on Chinese scholarship and his comparative research in such areas as Chinese-Western mathematics and grammar.

In subsequent years, while working on modernization projects for reformers within the Qing government, Ma visited both Europe and North America, returning with a vision of creating a modern Chinese university that would keep pace with such institutions as the University of Paris, Oxbridge, and Harvard. In 1903, he endowed a new institution, l'université l'Aurore or Zhendan, with all his family property and invited French Jesuit scholars to bring their intellectual gifts to the teaching work of the new university. Within two years, however, conflicts over the curriculum, the administrative organization, and the selection of students reached crisis proportions, and Ma walked out, together with the majority of the students. They subsequently established a new and independent Zhendan, which they called Fudan, meaning a revived Aurore.⁴

Fudan University took on itself the task of forging a modern ethos of scholarship suited to a slowly emerging vision of a new China, and its institutional history has reflected the difficulties associated with such a task. Between 1980 and 1982 I had the privilege of teaching in this university and spent many hours in its library poring over historical documents, early journals of students and faculty, and other materials, trying to get an understanding of the Chinese ethos of modern scholarship that its members consciously set themselves to create.

I do not know what the layperson's image of a Chinese puzzle is. What comes to my mind is a very complex pattern of interlocking sets of opposites. As I studied the history of Fudan, I got a sense of a dialectical tension between opposites that never found a satisfactory historical synthesis, something later illuminated for me by the realization that the Daoist dialectic differs from the Hegelian one in that it is a unity of opposites without synthesis. The practical research task I set myself was to move from the microcosm of the history of one university over the modern

⁴ Ruth Hayhoe, "Towards the Forging of a Chinese University Ethos: Zhendan and Fudan 1903–1919," *China Quarterly*, no. 92 (June 1983), pp. 323–41.

period to the macrocosm of the creation of a modern Chinese higher education system in the period from 1911 to 1980. To the internal tensions of a modernizing knowledge system, which I saw as primary, were added the complications of successive foreign models adopted at different periods.

As I moved in my reflections from microcosm to macrocosm, the puzzle began to take on rather broad dimensions. How was I to analyze it? At this point, I must pay tribute to the methodological work of Brian Holmes that provided me with tools I was able to use, however clumsily, in developing a comparative-historical analysis of what I see as a central dilemma in modern Chinese higher education. Holmes's adoption of the term "problem approach" to characterize his methodology reveals a determination to avoid the universalist assumptions that lie behind much comparative research in education and the panaceas that are likely to be prescribed and disseminated through international aid activity of one kind or another.

Holmes suggests Dewey's five stages of problem analysis for the identification and intellectualization of specific educational problems in defined sociocultural settings. Comparison may be drawn on in a creative way at any stage but is most fruitful in the posing of alternative solutions to defined problems.⁵ The problem approach gave some shape and direction to my puzzle making, so that it became a sustainable exercise over time. My sense of much North American social science research is that this academic puzzle making tends to be passed over rather cursorily, though it is potentially the most fascinating aspect of a research effort.

The second basic component of Holmes's methodology, if I understand him correctly, is an approach to social change that has much in common with American functionalism yet is more open, following Karl Popper's notion of evolutionary progress through human problem solving. Educational problems, in Holmes's view, arise from asynchronous change, a change in values, institutions, or the natural environment not accompanied by appropriate change in other spheres. Solutions to an identified problem are worked out through deductive logic in carefully defined specific initial conditions. Then anticipated outcomes are tested against the actual unfolding of educational reform activity. The service the comparative researcher is able to offer to policymakers is an indirect one, delineating likely outcomes of reform alternatives and so making possible informed political choices. Popperian critical dualism abjures the possibility of a scholarship that makes a direct contribution to normative choice.

While my personal views on social change and the fact-value issue in social science scholarship have changed, I nevertheless continue to admire Holmes's neopositivist synthesis with the special importance it gives to

⁵ Brian Holmes, *Problems in Education: A Comparative Approach* (London: Routledge & Kegan Paul, 1965).

both the normative patterns of legislative aspiration and the mental states that explain the behavior of individuals and groups within educational settings. While Hans elaborated these patterns through the historical analysis of religious and secular idea systems, Holmes proposes the use of the Weberian ideal type as a tool of precision and economy for analyzing the normative dimension of educational change. The second half of his *Comparative Education: Some Considerations of Method* explains and illustrates this approach with ideal types that illuminate educational change in Europe, the United States, and the Soviet Union.⁶

Here, then, were tools for a comparative-historical analysis of the emergence of the modern Chinese university from a 2,000-year-old tradition of higher education quite distinct from that of the European university. For the sake of simplicity, I stayed with a simple definition of China's modernization process propounded by Sun Yat Sen, the father of the 1911 revolution. The Three Principles of the People include people's livelihood or economic growth, people's rights or gradual political democratization, and people's nationalism, the shaping of China's "sheet of loose sand" into a modern state that could mobilize and direct its people's energies.⁷ In retrospect, with the progressive abandonment of Marxist-Leninist rhetoric since 1978 and the assessment of the Thirteenth Party Congress in the autumn of 1987 that China is in the earliest stage of socialism and that all approaches to increasing economic productivity are acceptable, this early republican depiction of modernization aims remains relevant.

The first fascinating discovery I made as I probed the Chinese knowledge tradition and tried to construct an ideal type of the traditional Chinese university that would crystallize its points of difference from the medieval European tradition was that China had never had a university. Rather, its knowledge tradition could be summarized by reference to two traditional institutions expressing opposite sets of values. If the European university tradition was characterized by autonomy and academic freedom, the traditional Chinese *taixue* (imperial university), *guozijian* (college of the sons of the emperor), and other institutions associated with the civil service examinations enjoyed not autonomy but a scholarly monopoly over the traditional bureaucracy, not academic freedom but an intellectual authority that defined orthodox canons of knowledge, their interpretation, and their application. At the opposite pole of this dominant knowledge tradition, stood the *shuyuan*, colleges or academies that were local centers of lively scholarly activity and the main channel through which new ideas drawn from such heterodox sources as Daoism or Buddhism found their way

⁶ Brian Holmes, *Comparative Education: Some Considerations of Method* (London: Allen & Unwin, 1981), chaps. 6–9.

⁷ Sun Yat Sen, *The Three People's Principles* (Shanghai: Commercial Press, 1928).

into the dominant knowledge tradition. They aspired to institutional autonomy, yet it was a fragmented individual autonomy, constantly subject to pressures for co-optation or closure by the bureaucracy. They never achieved the kind of autonomy enjoyed collectively by the medieval universities under their respective papal charters. As for academic freedom, they aspired not merely to a freedom that allowed the raising of new questions in specific disciplines but also to a much broader intellectual freedom that implied transforming existing knowledge patterns and offering fundamental criticisms to the ruling bureaucracy.⁸

Of course, it is the first of these two poles that is best known in the West, while the radical anarchic pole of the Chinese knowledge tradition has been given less attention. Yet it is only by getting a sense of how one interacts with the other in the Chinese dialectic that one can understand the fundamental tensions that accompanied the creation of modern higher institutions over the period since 1911. Finding a modern Chinese university that could crystallize in ideal typical form a pure Chinese approach, as against the many amalgams based on foreign models, was not easy. However, the one period when the Chinese leadership was determined to form educational institutions uninfluenced by foreign models was the Yenan period, when an energetic Communist party laid the foundations for what was to be a successful revolution. Yenan University of the 1940s took shape more within the contours of Mao thought than of a Soviet model.⁹ In its aims and patterns, which were, of course, couched in Marxist-Leninist terminology, could be seen aspects of the informality and radicalism of the *shuyuan* tradition. This was offset by an integration into the newly emerging Communist bureaucracy and into forms of intellectual authoritarianism that were strongly reminiscent of what might be called the Confucian pole of the Chinese knowledge tradition.

With its rise to power in 1949, the new leadership moved toward institutionalizing this second pole in a total reform of the higher education system, which it justified in terms of the advanced experience of Soviet higher education with its regimented approach to serving socialist modernization. The anarchic and populist pole was not to be suppressed permanently, however. It reemerged with the Great Leap Forward of 1958, then again in the conscious attempt to reshape all higher education on Yenan patterns during the Cultural Revolution. Both periods have been analyzed largely in terms of the political power struggle that is crucial to understanding them, yet it is interesting to note that political radicals, with their voluntarist view of how Communist transformation could be

⁸ Ruth Hayhoe, "Chinese, European and American Scholarly Values in Interaction," *London Association of Comparative Educationists*, Occasional Paper no. 13 (July 1984).

⁹ Wang Hsueh-wen, *Chinese Communist Education: The Yenan Period* (Taiwan: Institute of International Relations, 1975).

more rapidly achieved, briefly concurred with intellectuals who spoke out against the authoritarian and regimented curricular patterns that resulted from a combination of Soviet and Confucian influences in the fifties. Once the radicals had gained their power ends in both 1958 and 1967, they ruthlessly suppressed the intellectuals whose criticism had proven briefly useful. Nevertheless, the transformation of knowledge patterns attempted in these two periods represented a reassertion not only of Communist radicalism but also of a progressivism that had much deeper roots in Chinese intellectual history.¹⁰

Among the developments that have most mystified Western observers of modern Chinese society are the radical pendulum swings in which definitions of revolutionaries and reactionaries are suddenly turned upside down as a new group gains power. While much of this can be explained in terms of conflicting political theories or differing interpretations of the socialist program, what I am trying to suggest here is that another level of explanation might be added through an examination of fundamental knowledge assumptions and patterns. The Daoist dialectic, unifying opposites that are never synthesized, seems to have something to do with political and social gymnastics that cannot be reduced to linear explanations within Western concepts of rationality.¹¹

To put my conclusions simply, as I puzzled over the internal dynamics of China's modern experience of knowledge and development, I came to see China's dilemma in terms of aspirations for economic modernity that demanded a transformation of the rigid Confucian regimentation of knowledge, on the one hand, coming up against notions of political order that were conceived entirely in terms of the regulation and control of knowledge, on the other. The anarchy that historically accompanied attempts to deregulate knowledge, most dramatically evident in the Cultural Revolution period, has only served to reinforce adherence to the opposite pole. This is the problem of a dialectic without synthesis.

The second half of the puzzle relates to the introduction of foreign higher education models. The dilemma can be further analyzed in terms of the way in which specific models—the ones of greatest importance over the modern period have been German, French, American, and Soviet—have exacerbated or mitigated the tension between knowledge for economic development and knowledge for political order. Another

¹⁰ I have analyzed the transformation of knowledge patterns in China's higher education using Bernstein's concepts of classification and framing in "China's Higher Curricular Reform in Historical Perspective," *China Quarterly*, no. 110 (June 1987), pp. 196–230.

¹¹ Stuart Schram gives a fascinating analysis of the increasingly prominent role of the Daoist dialectic in Mao thought, culminating in Mao's open admission just before the Cultural Revolution that he no longer believed in the synthetic phases of the Hegelian dialectic—the law of quantitative and qualitative change and of affirmation and negation—but only in the unity of opposites. See Stuart Schram, *Mao Zedong: A Preliminary Assessment* (Hong Kong: Chinese University Press; New York: St. Martin's, 1983).

way of putting the question would be to ask whether these models provide the possibility of a synthesis that might finally halt the pendulum swing from pole to pole that has brought so much anguish in China's modern history. I cannot claim to have answered this question in my doctoral work, though I did develop ideal typical models of each set of patterns and analyze historically the way in which they combined with one or another of the poles of the Chinese knowledge tradition. My sense of the situation is that the Soviet model, with its roots in the European knowledge tradition, far from effecting a synthesis, combined with the Confucian pole to exacerbate tensions to such a degree that the extreme antithesis of Cultural Revolution anarchism in knowledge and politics was inevitable. In contrast, American knowledge patterns have tended to combine with the radical anarchic pole, producing forms of activity quite out of keeping with American political or economic interests in China. That at least was the case in the twenties.

Now that China has recovered from the latest and most violent swing of the pendulum in the Cultural Revolution and opened its doors again to the outside world, the puzzle remains. What patterns may support a synthesis between the two extremes, a compromise conducive both to rapid economic development and to a gradual and measured political democratization? Recent problems with activist and critical students and intellectuals, who reflect the changes already under way in the knowledge system, are evidence of rising tensions that the leadership is trying to defuse through a commitment to gradual reform of the political structure.¹²

In the present period there are two levels or types of foreign educational influence whose contribution deserves serious study. On the one level is the World Bank with its eight major projects in Chinese higher education touching over 180 Chinese institutions. It might be said to represent an Organization for Economic Cooperation and Development (OECD) university model, the combined wisdom of patterns that have been increasingly homogenized in the advanced capitalist world since the 1960s. On the second level is bilateral interaction with Japan, European nations, North America, and many other countries, where distinctive knowledge patterns underlie cultural policy and make for interesting differences in the form of assistance and cooperation offered to Chinese universities. The degree to which the distinction between multilateral and bilateral influences is considered significant reflects the extent to which culture and knowledge are given any independence from the political-economic context.¹³

¹² Suzanne Pepper, "Deng Xiaoping's Political and Economic Reforms and the Chinese Student Protests," in *Universities Field Staff International Report* no. 30 (1986), available from 2620 University Drive, Indianapolis, Ind. 46202; Ruth Hayhoe, "China's Intellectuals in the World Community," *Higher Education* 17, no. 2 (1988): 121–38.

¹³ Ruth Hayhoe, "Chinese Universities and Western Academic Models," *Higher Education*, vol. 18, no. 1 (1989), in press.

World Order and Comparative Education

When I returned home to Canada in 1984 after 17 years in Asia and Europe, it was this contemporary configuration of the Chinese puzzle on which I decided to focus. The combination of historical research and my best attempt to try out Holmes's methodology had laid a foundation, but how was I now to build on it?

The first point that I felt had to be faced, one that the comparative-historical approach did not address in any systematic way, was the fact that Chinese educational developments in the post-1978 period had to be analyzed within some defined conception of world order. Purely sinological interpretations, no matter how insightful, were no longer adequate. There seemed to me two obvious ways of doing this within the comparative education literature. On the one hand, one could take universalist modernization theory assumptions and their implications for education as a framework for analyzing China's new policy of four modernizations and the role of education within that policy. One could then examine the forms and types of knowledge transfer from outside that would enhance the efficiency and effectiveness of this process. A vast literature exists within this mode, and its careful application to the Chinese case could prove most illuminating. A critical consideration of the knowledge transfer assumptions of this perspective, and the way in which they have been expressed in educational aid to other developing countries, could also be tremendously helpful in anticipating the outcomes of the many bilateral and multilateral cooperative projects in Chinese education.¹⁴

On the opposite side of the modernization coin are dependency theory and worlds systems theory. They have been valuable in raising the question of why modernization has not worked in many developing countries. Educational research within these paradigms has illustrated how knowledge transfer and educational aid, both colonial and neocolonial, have reinforced and made appear normal forms of external political and economic domination responsible for either underdevelopment or a highly distorted development process.¹⁵ Recommendations for educational delinking or educational policies that could counter the disturbing effects of external domination are part of a rich literature that has opened up much new understanding. Within this perspective, the Chinese case is of special interest in that the Cultural Revolution provided one of the best examples of revolutionary unlinking in recent developmental history, an example

¹⁴ I see the work of Juergen Henze as the most consistent attempt to analyze Chinese educational developments within the framework of modernization theory. See, e.g., his "Educational Modernization as a Search for Higher Efficiency," in *China's Education and the Industrialized World*, ed. R. Hayhoe and M. Bastid (New York: M. E. Sharpe; Toronto: Ontario Institute for Studies in Education [OISE] Press, 1987).

¹⁵ Martin Carnoy, *Education as Cultural Imperialism* (New York: McKay, 1974).

that set off some far-reaching ripples in the late sixties. I feel that much research remains to be done on China's Cultural Revolution and that those working within this approach should look analytically at its achievements and failures, something not yet possible for scholars within China.

However, what leaves me dissatisfied with these conceptions of world order is that neither gives significant autonomy to cultural and educational interaction among nations. For modernization, knowledge interaction is conceived as a technical contribution to progress along a defined economic continuum involving the rationalization of educational provision to create as efficiently as possible the types and levels of manpower needed for rapid economic development. For dependency, international educational relations appear to consolidate pressures to conform to the political-economic interests of the capitalist world by coopting a compliant elite and reinforcing educational structures that favor capitalist development strategies.

Nevertheless, the dependency view approximated a Chinese understanding of China's recent educational history more closely than the modernization view until the most recent period. Therefore, when the Fifth World Congress of Comparative Education was held in Paris in 1984 on the theme of "Dependence and Interdependence in Education," I decided to organize a seminar on China's educational relations with the outside world that would explore the extent to which educational transfer from the industrialized nations in China's modern history had corresponded to and reinforced external political and economic domination.¹⁶

One of the weaknesses of the educational dependency literature, in my view, lies in the fact that much of it sets out to prove linkages between education and other forms of domination, a leftover from positivism and the inductive method that has weakened the impact of research done within this paradigm.¹⁷ Taking our cue from the Popperian notion of falsification, we decided to take the opposite tack and try to identify educational influences and transfers from the industrialized world in China's modern history that were not coordinated with political or economic forces of domination.¹⁸ The instances that survived this test then gave tentative validity to the dependency theory approach for understanding China's modern educational development. I will not give details of the

¹⁶ The only detailed study attempting to put Chinese economic development into a world-systems perspective is Francis Moulder, *Japan, China and the Modern World Economy: Towards a Reinterpretation of East Asian Development, ca. 1600 to ca. 1918* (Cambridge: Cambridge University Press, 1979).

¹⁷ R. Arnove, "Comparative Education and World Systems Analysis," *Comparative Education Review* 24, no. 1 (February 1980): 48–62. In this article, Arnove suggests that the task of comparative education is to "verify empirically" the linkages between knowledge flows and political-economic domination.

¹⁸ Hayhoe and Bastid, eds.

results since the book is now available but will only note that the most strikingly consistent and coherent case of educational transfer reinforcing political-economic dominance was China's experience with the Soviet Union in the fifties.

Neither dependency theory nor world systems analysis are well able to deal with this phenomenon, given their roots in the Leninist view of imperialism as the highest stage of capitalism. Even Wallerstein's view of socialist countries as inevitably linked to the capitalist world system and limited in their possibilities by its constraints does not open up much understanding of processes of domination among socialist nations.¹⁹ For this reason I turned to Galtung's structural theory of imperialism and other literature of the World Order Models Project (WOMP), which seemed to provide a conception of world order suited to both a historical and contemporary analysis of China's educational interaction with the outside world.²⁰

The first point about the structural theory of imperialism that distinguishes it from Marxist approaches is the distinction Galtung makes among political, economic, military, and social communications and cultural imperialism, and his insistence that none of these can be assumed to be prior but the interaction among them must be dealt with heuristically in specific cases. Galtung's definition of centers and peripheries related through vertical and feudal interaction structures has been extremely fruitful in my view, not only for identifying patterns of dominance that may exist in the cultural sphere independent of the economic or vice versa but also in stimulating thought about policies that would encourage horizontalization and defeudalization. Many of the creative initiatives taken by such international agencies as United Nations Conference on Trade and Development (UNCTAD), Unesco, the Group of 77, and even the World Bank most recently seem to have been inspired by the stimulus for global transformation along these lines that has arisen from the WOMP literature.

For me, on the intellectual level, WOMP represented a compromise between the value-neutral approach to research characterizing both the neopositivism of Popper's critical dualism and the positivism of modernization theory on the one hand and the Marxist view that a correctly analyzed science of history could be directly prescriptive on the other. In the WOMP approach, I find a science that is objective in its commitment to an empirical analysis of ongoing trends in the world polity and economy, yet also committed to a value-explicit normative framework embodying the goals of peace, economic well-being, social justice, and ecological

¹⁹ I. Wallerstein, *The Politics of the World Economy: The States, the Movements and the Civilizations* (Cambridge: Cambridge University Press, 1984).

²⁰ J. Galtung, "A Structural Theory of Imperialism," *Journal of Peace Research* 8 (1972): 81–117.

balance. Scholars are not limited to an empirical analysis of trends but they are also called to be visionaries, using rigorous academic methods to construct detailed models of preferred futures and to delineate policy alternatives that would promote movement to these ends.²¹ These models give specific shape to the general notion of system transformation toward greater equity.

Let me now return to the practical research problems on China's open door. Between 1984 and 1986 I held a postdoctoral fellowship at the Ontario Institute for Studies in Education (OISE) with the intention of studying various aspects of this phenomenon: the many Chinese students and scholars abroad, the involvement of various industrialized countries in cultural and educational exchange and, in some cases, in educational aid, and, finally, the massive involvement of the World Bank in projects supporting Chinese educational development. It was possible to amass quantities of material on the subject, including cultural agreements, project documents, interview data and the like, but how was one to evaluate the process?

By an interesting coincidence, in the same year that I came to OISE, some of our educational evaluators were invited by the Canadian International Development Agency (CIDA) to carry out a formative evaluation of the early stages of several CIDA educational projects in China. I watched with fascination as they carried out evaluative procedures of a high level of technical competence measuring the efficiency and effectiveness of project procedures and activities in relation to goals that had been established. The whole process was an excellent accountability exercise as well as being a learning experience for both Canadian and Chinese participants. But who was to evaluate the goals themselves? And who could guarantee that projects attaining the highest level of efficiency and effectiveness in their technical execution would not have undesirable cultural and political outcomes? I could not help making mental comparisons with Soviet assistance of the fifties, which was undoubtedly both efficient and effective, yet culminated in the Cultural Revolution debacle.

The answer was not to condemn these projects as expressions of capitalist penetration whose outcomes could be predicted along the lines of dependency theory but, rather, to sketch out an evaluative framework for measuring the political and cultural consequences of specific bilateral and multilateral projects of educational transfer. Going back to my early intimations of how the open door should be studied, it seemed clear that this framework must embody both the historical particularity of China's

²¹ J. Galtung, *The True Worlds: A Transnational Perspective* (New York: Free Press, 1980); R. Falk, S. Kim, and S. Mendlovitz, *Towards a Just World Order* (Boulder, Colo.: Westview, 1982); S. Kim, *The Quest for a Just World Order* (Boulder, Colo.: Westview, 1984).

unique knowledge tradition and general lessons that could be learned from patterns of domination and subordination to which other developing countries have been subject in the world community.

These contours of thought lie behind a forthcoming monograph entitled *China's Universities and the Open Door*.²² The first half of this volume deals with the internal dimension, analyzing the changes now taking place in the knowledge patterns of Chinese higher education in terms of a contradiction between knowledge transformation for economic development and knowledge regimentation for political order. The second half sets out an evaluative framework for comparing the wide range of bilateral and multilateral aid and cooperative activities in Chinese higher education, using key concepts drawn from world order models theory.

In order to synthesize these two approaches to analysis, the internal and the external, the particular and the universal, I worked to construct two opposite ideal types that would crystallize with as much logic and internal consistency as possible both what I saw as a preferred future for China in its interaction with the outside world and the opposite to be avoided—a China conforming to both the negative patterns of its own past and the kind of dependency experienced by some other developing nations.

The ideal type of a preferred future, which I have called transformation or mutuality, envisages a China whose internal dilemma is resolved by a synthesis in knowledge patterns that serves both economic and political development in a balanced way. Educational interaction with outside nations is characterized by equity in the agreements reached and autonomy in the mutual respect given to the knowledge patterns of each side. This autonomy is built up through solidarity among all groups and regions within the country in the task of reinterpreting the Chinese knowledge tradition and integrating into it desired foreign inputs. There is a broad participation in open-door activities from the grass roots up. The vision is of a China at peace with her own internal modernization process and able not only to benefit from external assistance in a substantive way but also to draw from her rich traditional and socialist civilization a contribution that will have transformative effects in the world community.

The opposite ideal type, which might be called conformity or penetration, envisages a China that is unable to resolve its internal contradiction. This is again exacerbated by the selection of foreign patterns that reinforce traditional authoritarian forms of power and set conditions for another destructive pendulum swing. On the external level, educational relations are characterized by exploitation rather than equity and by a penetration

²² Ruth Hayhoe, *China's Universities and the Open Door* (New York: M. E. Sharpe; Toronto: OISE Press, 1989), in press.

that sets up artificial foreign knowledge standards rather than autonomy. In place of solidarity among regions and groups in the task of domesticating foreign knowledge, there is a destructive fragmentation as all compete selfishly for a larger share in these foreign inputs. In place of participation is a marginalization of the many who are excluded from the interaction process.

These are conceptual opposites that have formed my most recent version of the Chinese puzzle. Clearly, the reality of the changes taking place in Chinese education and society lies somewhere between these two poles, yet they provide an analytic framework that is open-ended yet value-explicit. Both internal developments in China's higher education and external projects of cooperation and assistance can be evaluated comparatively along the dimensions provided by this framework. The values of equity and autonomy are particularly relevant for the comparative evaluation of the many types of agreements for educational cooperation between China and major industrialized centers.²³ The values of solidarity and participation relate to the wider question of how China's escalating open-door activities are affecting networks for intraregional cooperation and the distribution of resources that were set in place by central planning in the 1950s.²⁴

I am convinced that these models are useful for China research, even though the level of generality might be called into question. I wonder also whether this approach might not be helpful for comparative research on several developing societies combining some of the specificities of local cultural and political history with the general lines of analysis provided by the world order models theory. I think the use of ideal types and the emphasis on falsification rather than verification makes possible a tentative and heuristic approach as against the positivism of modernization theory on the one hand and the tendency towards a Marxist positivism that seeks only verifying examples of domination and dependency on the other.

The possibilities for comparison in this approach can be seen in the work of Ali Mazrui, whose analysis of African universities combines a WOMP framework with some of the specificities of both African culture and particular national and tribal cultures.²⁵ Philip Altbach's recent volume, *The Knowledge Context*, documents imbalances in knowledge production and dissemination on a global scale yet is able to draw on specialist knowledge of South and Southeast Asia for illuminating examples of indigenous publishing efforts that hold promise for greater autonomy.²⁶ I think much

²³ Ruth Hayhoe, "Penetration of Mutuality: China's Educational Cooperation with Europe, Japan, and North America," *Comparative Education Review* 31, no. 4 (November 1986): 532–60.

²⁴ For a preliminary piece of research on this issue, see Ruth Hayhoe, "Shanghai as a Mediator of the Educational Open Door," *Pacific Affairs* 61, no. 2 (Summer 1988): 253–84.

²⁵ Ali Mazrui, *Political Values and the Educated Class in Africa* (London: Heinemann, 1978).

²⁶ P. Altbach, *The Knowledge Context* (Albany: State University of New York Press, 1987).

more could be done along these lines, incorporating broader comparative data from different regions. Nevertheless, my own attempt to work within this framework has left me with a fundamental area of dissatisfaction. It is this that I wish to address in the final section of this article.

Comparative Education and International Knowledge Relations

What seems to me to be missing in the WOMP approach to international knowledge relations is a way of looking at knowledge itself and its possibilities in the international arena. The analysis of patterns of verticality and feudalization in the knowledge sphere, as well as suggestions for horizontalization and defeudalization, seemed to be based mainly on analogy to the economic realm.²⁷ This tendency is evident in *The Knowledge Context*, where books and journals are treated largely as material phenomena existing within Popper's conception of World 1, without much consideration of the knowledge dynamics that might arise out of the World 3 theories and ideas that they contain.²⁸ The economic analogy is without doubt a valuable one but somehow it does not go far enough.

The political dimensions of knowledge are also extremely important, and here I find the work of Hans Weiler very evocative. He has developed the concept of legitimation with reference to educational research in a most interesting way, shedding light on the symbiotic relation between knowledge and power at the national level. I have found particularly helpful the extension of this analysis to a consideration of the international politics of knowledge.²⁹

Nevertheless, I believe that a consideration of the nature of knowledge itself, apart from its political or economic implications, is fundamental to an analysis of international educational and knowledge relations. The distinction between different types of knowledge and their relative balance in international educational relations is also a vital question. It is essential to identify patterns of domination and subordination that are specific to knowledge interaction and may escape either analogy to the economic sphere or symbiosis with the political sphere.

In Popper's view, the relative autonomy and cumulative development of World 3 theories and ideas has made possible a scientific knowledge that is advanced through a problem-solving process involving the imaginative conjecturing of solutions and their rigorous testing through experimental or deductive logic. Rationality, for Popper, is defined in terms

²⁷ M. McLean, "Educational Dependency: A Critique," *Compare* 13, no. 1 (1983): 25–42.

²⁸ K. Popper and J. Eccles, *The Self and Its Brain: An Argument for Interactionism* (London: Routledge & Kegan Paul, 1977).

²⁹ Hans Weiler, "Knowledge and Legitimation: The National and International Politics of Educational Research" (paper presented to the Fifth World Congress of Comparative Education, Paris, July 1984).

of scientific method, while political, cultural, and moral values are in a separate realm from the facts of the scientific world.³⁰ The maintenance of this fact/value distinction is essential to an open society, in Popper's view.³¹ Arguments of all kinds, thrown up from differing cultural and political perspectives, are acceptable, yet only those that survive rigorous attempts at falsification are viewed as tentatively true in the universalist context of a shared natural world that yields its secrets to the problem-solving quest of a common humanity.³²

Popper's formulation of rationality has implications for international knowledge interaction that go beyond the technical focus of modernization theory in one important point. In addition to technological knowledge that will solve immediate problems in the modernization process, there is, clearly, place for critical theoretical interaction that will stimulate and strengthen a problem-solving environment in both the developed and developing world. There may even be space for a new contribution to scientific theory arising from the cultural mind-set of scientists in Third World nations that would fundamentally alter our understanding of the natural world.

As for the social sciences, however, to the extent that they are scientific they demonstrate their worth in piecemeal social engineering. Values, beliefs, or the vision of the ideal society lie outside the realm of scientific rationality for Popper. Holmes's application of Popperian method to comparative research has emphasized cultural and historical specificity and given due importance to normative patterns and mental states, yet the problem solving itself remains a technical exercise, owing to the limits placed on the concept of scientific rationality. It is for this reason that I have reservations about the neopositivist synthesis developed by Holmes for comparative education. I feel it cannot escape the critiques that have been made of the ways in which the dissemination of the positivist social sciences from the First to the Third World has embodied patterns of dominance only too amenable to the service of external political and economic interests.³³

The limiting nature of the Western concept of scientific rationality and its implications for society has probably been most poignantly explored in the historical sociology of Max Weber.³⁴ Weber's intimations about the "iron cage of modernity," with the expansion of scientific-technical reason

³⁰ K. Popper, *Objective Knowledge: An Evolutionary Approach* (Oxford: Clarendon, 1972).

³¹ K. Popper, *The Open Society and Its Enemies* (London: Routledge & Kegan Paul, 1966).

³² K. Popper, "The Myth of the Framework," *London Association of Comparative Educationists*, Occasional Paper no. 14 (1984).

³³ Irene Gendzier, *Managing Political Change: Social Scientists and the Third World* (Boulder and London: Westview, 1985).

³⁴ Max Weber, *Economy and Society*, ed. F. Roth and C. Wittich, 2 vols. (Los Angeles: University of California Press, 1970).

into every area of social and cultural life, may provide an important clue to thinking about patterns of domination specific to the construction of knowledge itself.

In the sixties, critical theorists of the Frankfurt school saw the answer to this dilemma in a total refashioning of reason, so that it was characterized by passion and morality rather than by the neutral affectivity and impersonal law associated with the Parsonian depiction of modernization. The one human realm still free enough to spark off a psychic rebellion that would open the way to this new definition of reason was art.³⁵

Of course many aspects of the Western student movement and of intellectual dissidence in the sixties reflected this intellectual rebellion, but no country in the world provided a more powerful image of a psychic uprising against the chains of a rationalized bureaucracy than China's Cultural Revolution.³⁶ By the same token, the dismantling of the powerful myth of a total refashioning of society along radical moral and political lines has somehow sounded the death knell to this vision of a refashioning of reason itself.

What is left, and what I find extremely provocative and important for thinking about international knowledge relations, is the work of Juergen Habermas. Habermas sees the knowledge problem somewhat differently than either Weber, with his pessimism about the inevitable expansion of scientific rationality into every area of life, or the critical theorists with their determination to recreate reason in entirely new forms. While affirming modernity and the achievements of scientific rationality he sees as problematic its hypostatization and the concomitant failure in Western historical experience to work out a rationalization of the moral-practical area of the social sciences and of the practical-aesthetic areas of art, religion, and literature.³⁷ The very notion of rationality being limited to natural scientific method implies a kind of domination within the way knowledge has been constructed in Western experience. Habermas affirms the importance of scientific rationality and its truth claims, yet calls for a rationalization of moral-practical knowledge by unconstrained discussion over norms of rightness and of practical-aesthetic knowledge according to subjective criteria of authenticity.³⁸ What should result is a much richer and broader concept of rationality.

The process of this balanced and interconnected rationalization of knowledge areas is summed up in the central concept of communicative

³⁵ Herbert Marcuse, *One Dimensional Man* (Boston: Beacon, 1964). See also R. Bernstein, ed., *Habermas and Modernity* (Cambridge: MIT Press, 1985).

³⁶ Roland Depierre, "Maoism in French Educational Thought and Practice," in Hayhoe and Bastid, eds. (n. 14 above).

³⁷ J. Habermas, *The Theory of Communicative Action* (Boston: Beacon, 1984). For a discussion of Popper, see pp. 75–79.

³⁸ *Ibid.*, pp. 273, 95–100.

action. It brings together three kinds of action: teleological action, whose language is that of scientific-instrumental rationality; normatively regulated action, whose language transmits cultural values; and dramaturgical action, whose language is a medium of self-presentation. In the bringing together of these three forms of knowledge and action, the system, characterized by a fixated scientific-technical rationality, is linked back to its cultural life-world and gradually modified through a redefinition of rationality.

Habermas's project seems to be the opening up of a pathway for the redemption of modernity through this redefinition of rationality. What I want to ask, and what I think could be an important issue for comparative education in its future direction, is whether or not this view of knowledge could bring a new dimension to a study of international educational relations. It seems to me that the concept of communicative action as a process within which the system is reconnected to its cultural life-world might be extended to a concept of international interaction among systems that may increasingly embody the dominating possibilities of a hypostatized scientific-technical rationality yet are rooted in cultural life-worlds with distinctive norms of rightness and expressions of authenticity. The rationalization of these life-worlds in an international milieu could provide a vision of the redemption of Western modernity that comes not only through the internal critiques of its own scholars but also through the contribution of other sociocultural values and aesthetic sensitivities. This vision seems to bring something deeper to the WOMP concept of horizontalization in knowledge relations than either analogy from the economic sphere or symbiosis with the political sphere.

I sense that it would be possible to operationalize this approach in concrete studies of knowledge transfer programs and processes. Four categories of knowledge can be distinguished: scientific theory, technology, moral-practical knowledge, and practical-aesthetic knowledge. In terms of scientific-technical knowledge transfer, the key point of interest would be the balance between theoretical knowledge, justified by criteria of truth, and technological knowledge, judged by criteria of usefulness. Possibly some of the dominating tendencies of this knowledge area in the international arena arise from inadequate attention to theory as the base in which technological knowledge interaction must be rooted. Interaction in moral-practical knowledge, the broad social science areas, would be investigated in terms of the extent to which it was dominated by scientific-technical rationality or allowed for the discussion of norms of rightness in an unconstrained atmosphere. Finally, aesthetic-practical knowledge interaction would be evaluated in terms of the degree to which it provided a meeting point for the subjectivities of each side and for the recognition of what constitutes authenticity for each. In this conception, norms of rightness are seen neither as scientifically fixed and universal, as in the

two poles of positivism, nor as totally relative to subjective cultural pre-suppositions, but as mediating between the subjective and the objective.

Reconstituting the Chinese puzzle in these terms is a very difficult intellectual task. However, in a recent attempt to draw parallels between China's historical and contemporary experience of educational interaction with the industrialized world, the crude distinction between knowledge interaction dominated by a scientific-technical rationality and that which gave a place to explicit sociocultural values highlighted some interesting points of difference among the contributions made by Germany, France, the United States, Japan, and the Soviet Union to China's educational development. In some cases, there were possibilities for a mutuality of understanding rooted in the sociocultural life-world that belied overt intentions of political and economic domination at the national-political level. In other cases, mutuality and equity at the level of political-economic relations were undermined by a knowledge interaction dominated by scientific-technical rationality and giving no place to either normative debate or mutual subjective understanding.³⁹

What I think is called for, therefore, is a working out in a more detailed way of the implications for knowledge transfer of scientific, technical, moral-practical, and aesthetic-practical knowledge. How are these categories related to major disciplinary divisions of knowledge? Is it possible to create an evaluative framework in ideal typical form of a balanced and non-dominating knowledge interaction process that could provide conditions for mutual transformation? This framework for international knowledge relations could be then set in the wider framework of the international political economy developed by world orders models thinking. Both should, in turn, be modified in application to specific problems by the integration of specific historical-cultural contextual details into the analysis.

These layers of analysis might be seen as a set of Chinese boxes—the comparative-historical approach, with its attention to particularity on the outside, then WOMP theory in the middle box, offering a tentative yet suggestive model of world order that can be applied heuristically to a wide range of contexts, and, finally, critical theory in the innermost box, providing somewhat finer tools for analyzing the knowledge component of international educational relations.

This approach should make possible a focus on the process itself, the quality of intellectual interaction, and the possibility of a major new contribution to the world academic community from knowledge patterns that could enrich the Western concept of rationality and support the redemption of modernity. The tools of analysis for this task need much refining. On

³⁹ Ruth Hayhoe, "Past and Present in China's Educational Relations with the Industrialized World," in Hayhoe and Bastid, eds.

the Western side, the views of Habermas could be modified by critical perspectives drawn from feminist thinking or other alternatives. On the other side, much work has to be done if the insights that might be derived from alternative academic traditions are to be applied to a critical analysis of Western rationality. This is a task in which academics from the West need to work together with scholars able to draw on Arabic, Indian, Chinese, and other traditions in the unconstrained conditions that Habermas has suggested are essential to communicative action.