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Our Global Civilization

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I am very happy to have the opportunity of coming to this distinguished Forum and to be able to join and interact with you. As my topic I have chosen the controversial subject of civilization, which has been something of a battleground in recent years.

There are two ways approach the history of civilization in the world. One is to pursue the story in an inclusive form, paying attention to the divisions as well as the interdependences involved, possibly varying over time, between the manifestations of civilization in different parts of the world. This I shall call the “inclusive approach.” The other, which I shall call the “fragmentary approach,” segregates the beliefs and practices of different regions separately, paying attention to the interdependences between them as an after thought (when any attention is paid to them at all). The former leads to what we can call the history of “global civilization.” It contrasts with the separatist view of civilizations of different countries or regions. That partitioned comprehension is quite common in the way history is often presented in what is called “the history of civilizations” in the world (with the emphasis on the plural connotation of “civilizations”). I will argue here for taking a less fragmentary and a more inclusive approach.

Recently the fragmentary approach has come into much prominence, especially in the threatening form of the so-called “clash of civilizations.” The idea of some kind of a clash of civilizations has risen from time to time in the past, but it is only recently that the entire subject has been elevated to the position of being a central concern in many Western countries. In this transformation, a major intellectual role has been played by the publication, in 1996, of Samuel Huntington’s famous book, *The Clash of Civilizations and the Remaking of World Order*. And more recently, the dreadful events of September 11th, 2001 have not only ushered in a period of awful conflicts and distrust in the world, but have also magnified the on-going interest in the alarming thesis of an almost inescapable “clash of civilizations.” Indeed, many influential commentators have been tempted to see a firm linkage between the profusion of atrocities that we see around us today and the civilizational divisions, primarily along religious lines.

If the fragmentary view has many weaknesses of its own (I shall discuss some of them presently), those flaws have been extended and compounded by the further thesis of clashing civilizations. One of the problems concerns the programme of categorizing people of the world according to some one-allegedly commanding-system of classification. To see any person wholly, or even primarily, as a member of a so-called civilization (for example, in Huntington’s categorization, as a member of “the Western world,” “the Islamic world,” “the Hindu world,” or “the Buddhist world”) is already to reduce people into this one dimension. Indeed, the question “do civilizations clash?” is founded on the presumption that humanity can, in fact, be classified into distinct and discrete civilizations, and that relations between different human beings can be somehow seen, without serious loss of understanding, as relations between different civilizations.

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A basic difficulty with the separatist view of people in terms of civilization lies in its presumption that each person’s so-called “civilizational identity” must be a predominant influence on his or her modes of thinking, thereby ignoring all other identities, elated respectively to economic, social, political, linguistic, professional, or occupational affiliations. In my recent book *Identity and Violence: The Illusion of Destiny* (2006), I have discussed the harm that is done by this implicit belief in a singular identity-or in the invariably predominant influence of a unique identity-one per head. I have also discussed (1) how this intellectual confusion can be used to foment violence (as terrorists do to recruit people to fierce deeds against “others”), and (2) how that intellectual disarray can make it very hard to resist separatist violence or to win the so-called War on Terror.

However, in addition to the problem of the artificial and thoroughly flawed assumption of singular identities in civilizational lines, the separatist outlook also plays havoc with world history by seeing the history of the world in mainly fragmentary terms. Let me illustrate the difference between the two approaches to the history of civilization with a concrete example. In his *Critical and Miscellaneous Essays*, Thomas Carlyle claims that “the three great elements of modern civilization” are “Gunpowder, Printing, and the Protestant Religion.” While the Chinese cannot be held responsible for Protestantism, their contribution to the other two elements in Carlyle’s list of civilizational ingredients is well known. But the fact that gunpowder or printing developed in China does not indicate that these innovations put the Chinese on an irrevocably separated path. Other countries took on these developments and made use of them sooner or later, and new syntheses developed as they invariably do in the history of our interdependent

world. Carlyle was, therefore, quite right to talk about the elements of what he called “modern civilization” and not see them to be parts only of regionally exclusive cultures, like “Chinese civilization” or “Western civilization.” The same issue arises—indeed even more strongly—in understanding Francis Bacon’s also famous list of ingredients of civilization in his book *Novum Organum*: “printing, gunpowder, and the magnet.” All these innovations occurred in fact in China. But Bacon saw them rightly as contributions to world civilization. There is a huge difference between seeing these achievements as exclusively Chinese ways of doing things as opposed to seeing them as major Chinese contributions to the development of world civilization.

This is, of course, not to say that there are no differences between the traditions and achievements of different parts of the world: that would be a silly view. There have been many departures coming, first, only in one part of the world, and then their influences spreading, sooner or later, across the globe, followed by new interactions. The point was made with great clarity by the Indian poet Rabindranath Tagore: “Whatever we understand and enjoy in human products instantly becomes ours, wherever they might have their origin.” That global understanding leads us to the inclusive view of world civilization rather than to fragmentary comprehension of segregated civilizations.

Along with the dangerous and flammable idea of civilizational categorization of the world, we can find many subsidiary concepts that draw on the overemphasis on that one categorization. Consider what is often called “Western science.” Despite that nomenclature, what is identified as the content of Western science clearly draws on a world heritage. There is a chain of intellectual relations that link Western mathematics and science to a collection of distinctly non-Western practitioners, for example Indian, Iranian and Arab innovations in mathematics. Even today, when a modern mathematician in, say, MIT or Harvard invokes an “algorithm” to solve a difficult computational problem, she helps to commemorate the contributions of the ninth-century Arab mathematician, Al-Khwarizmi, from whose name—Al-Khwarizmi—the term “algorithm” is derived (the term “algebra” comes from his book, *Al Jabr wa-al-Muqabilah*).

Not only is the flowering of global science and technology not an exclusively West-led phenomenon, there were major global advances that involved international interactions—all of them far away from Europe. Consider the development and use of printing, which Francis Bacon put among the advances that “have changed the whole face and state of things throughout the world.” The technology of printing was, of course, a great Chinese achievement, completed in the ninth century—the Chinese were working on it even as the Koreans and the Japanese were trying to get there also (with considerable success)□but the use to which they put this new art of printing was not confined just to China, Korea or Japan.

Consider the very first use of the newly developed technology. The first printed book in the world (or, to be exact, the first printed book that is actually dated) was the Chinese translation of a Sanskrit treatise from India on Buddhist philosophy, *Vajracchedika-prjnāparamita Sutra* (sometimes referred to as “the Diamond Sutra”), translated into Chinese from Sanskrit in early fifth century (it was printed four centuries later in 868 A.D.). The translator of the Diamond Sutra, Kumarajiva, was half Indian and half Turkish, who lived in a part of eastern Turkistan called Kuch, travelled extensively in India, and later moved to China, and headed the newly established institute of foreign languages in Xi’an in early fifth century (incidentally the first of its kind in the world). The West was, thus, not at all involved—not one iota—in the first stirring of what came to be, later on, a central component of the flowering of Western civilization many centuries afterwards.

I have already talked about the fact that some of the central ingredients of civilization, as identified by Francis Bacon or Thomas Carlyle, came originally from China to the Western world. That dominance was in fact more comprehensive than what we get from Francis Bacon’s or Thomas Carlyle’s lists. Think of the nature of “high technology” not right now—at the end of this millennium when the West is clearly dominant—but at the beginning of the millennium, around 1000 A.D. The high technology in the world of 1000 A.D. included paper and printing, the kite and the magnetic compass, the wheel barrow and the rotary fan, the crossbow and gunpowder, the clock and the iron chain suspension bridge. Each one of these examples of high technology of the world a millennium ago was very well-established and extensively used in China, and was practically unknown in much of the rest of the world, including of course Europe and the West.

What we now call Western science drew not only on indigenous innovations (important as they were, through the Renaissance and European Enlightenment), but also on using the fruits of early progress in many different parts of the world. Indeed, a large group of contributors from different non-Western societies—Chinese, Indian, Arab, Iranian, African, and others—influenced the science, engineering, mathematics and philosophy that played a major part in the European Renaissance and, later, in the Enlightenment.

Sometimes we can see some remnant marks of that global history in the nature of surviving words and language. I talked earlier about the Arab origins of the idea of algorithm; let me give another example, drawing from trigonometry, in the form of the word “sine” which is much used still in basic mathematics. Let me briefly discuss another, from the history of trigonometry. The ancient Indian mathematician, Aryabhata, had made extensive use of the concept of “sine” (central to modern trigonometry), in the fifth century. He called it *jya-ardha*, which literally means half-chord in Sanskrit. From there the term moved on in an interesting migratory way, as Howard Eves describes, in his *An Introduction to the History of Mathematics* (1990, p.237): Aryabhata called it *ardha-jya* (“half-chord”) and *jya-ardha* (“chord-half”), and then abbreviated the term by simply using *jya* (“chord”). From *jya* the Arabs phonetically derived *jiba*, which, following Arabic practice of omitting vowels, was written as *jb*. Now *jiba*, aside from its technical significance, is a meaningless word in Arabic. Later writers who came across *jb* as an abbreviation for the meaningless word *jiba* substituted *jaib* instead, which contains the same letters, and is a good Arabic word meaning “cove” or “bay”. Still later, Gherardo of Cremona (ca. 1150), when he made his translations from the Arabic, replaced the Arabian *jaib* by its Latin equivalent, *sinus* [meaning a cove or a bay] , from whence came our present word *sine*. This is part of the global history of world civilization, involving Indians, Arabs and Italians, and it would be difficult to wipe all that out in the gross nomenclature of “Western science” or “Western mathematics.”

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Time to conclude. The fragmentary narrowness of the increasingly popular civilizational mode of thinking not only gives us a critically incomplete history, it contributes also to alienation and unnecessary disaffection in the world. It makes people’s cultural backgrounds look more unbridgeable distant than they in fact are, and it encourages separatist and possibly confrontational views of each other.

As it happens, the West is suffering greatly right now from violence aimed against it by activists who want to draw on and exploit the divisions between so-called civilizations and traditions. A potential recruit for Islamic terrorism may appeal to a disaffected young Muslim by pointing to the distance between the Western culture and the Islamic tradition, but avoid altogether giving any recognition to the Muslim people’s own involvement in common pursuits, including science and technology-what is now called “Western science” and are seen as components of a rigidly separated “Western civilization.” Not surprisingly the anti-Western jihadists, including terrorists, like to promote the idea of a fundamental dichotomy between the West and the non-Western world. This assists them greatly to further their recruitment of activists ready to act against the West. What is truly tragic is that Western parochialists do not dispute this false dichotomy and add their own voice to seeing a historical segmentation of the world into a collectivity of narrowly defined civilizations-each at great distance from each other. Rather than resisting the alienation that feeds anti-Western violence, this adds further force to the terrorists’ segregated vision. In this sense Western parochialism has been in something of an implicit and unintended alliance with Islamic terrorism.

The importance of understanding the nature of global civilization lies not merely in getting our science and our history right, but also in avoiding a fragmentary and parochial approach to the contemporary world that is so closely associated with breeding alienation and violence in the world. Since China has been such a major contributor to world civilization, I thought I should use the occasion here to discuss the importance of a global understanding of civilizations in which Chinese intellectuals can play a major part.

The primary reason for giving the global perspective its due is, of course, epistemic-in particular that it helps us towards a fuller and less parochial understanding of the history of civilization in the world. However, to that basic historical argument we have to add the political recognition that a fragmentary understanding of civilizations contributes significantly to the political tensions in the world. On one side, the separatist distortion is used by those who want to foment disaffection and hostility as a part of the martial art of generating violence, and on the other side, it confuses and disorients the resisters of violence who want a more peaceful world but many of whom are captivated and captured by the same fragmentary view of our global past. The need for recollecting and celebrating the richness of the vast interdependences within our far-flung global civilization has never been stronger.