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Culture, Power, and the University in the Twenty-First Century

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Abstract: Powerful nations have influential systems of higher education. The paper explores the possible pattern of geo-politics in the twenty-first century, and the competing prospects of America and its rivals in higher education and research. Pressures on both the American and non-American worlds are evaluated, along with relative economic strengths, and how factors such as these translate into intellectual prowess. The paper suggests that peak intellectual and research achievement is dependent on cultural factors, and that America remains well-positioned as an intellectual nation despite fierce competition from rivals because of unique cultural characteristics.

Knowledge and Power

For those who remember it, the Cold War was a time of analytic certainty. Geopolitically, the world was divided into two blocs, Communist and anti-Communist, one identified with the East, the other with the West. A third, somewhat more vague, 'non aligned' bloc also existed but in practice, when it counted, non-aligned countries were generally sympathetic to the Communist bloc. Wildly different assessments were made at that time of the relative power of these competing blocs, but history settled the matter. Communism collapsed amidst its own dysfunction, and the West, especially the United States, emerged ascendant from the Cold War. Since 1989, and the disintegration of the Soviet Union, a series of efforts have been made to name the resulting world order. All have been short of the mark, and none have gained much traction. We live today in a geopolitical world that is looking for a name. Terms like 'the end of history', the 'post-American world', American 'hyper power' and 'mono-polarity', and the new 'multi-polarity' have proliferated, all contradictory, and all within a relatively short space of time. None of these terms capture the tenor of the era. History continues, and despite the rise of a distinctive second-tier of countries, the BRIC states, America remains the leading world power. There is no shortage of prophets who foresee the demise of America, but such prophecies have been around for a very long time, and track record suggests that they will be proved wrong yet again. America today has its share of internal problems, as it always has had, not least (now) increasing and serious levels of financial debt. Yet its traditional competitors, Europe and Japan, have similar problems, while China, a creditor state, remains for the foreseeable future a relatively low per capita income nation no matter what its rate of growth, just as mass poverty and chronic institutional deficits afflict all of the BRIC states.

The pattern of higher education, the research university, intellectual creation and the knowledge economy reflects the state of power in the world. In the foreseeable future, we can expect the number of universities in the BRIC cohort to grow as their middle classes expand. The intellectual productivity of those countries will also grow. Given China's ambition and drive, the number of Chinese universities in the rank of the top 100 world

research universities will increase in the foreseeable future.[1] The United States today overwhelmingly dominates the top 100. The population size of India and China virtually guarantees that these countries will leave a larger mark on world research output and traffic as their universities grow in number and relative sophistication. But whether this represents a challenge to America's century-long command of peak creativity is another matter altogether. Creativity follows power, but power follows culture. At the high-end of the spectrum of intellectual creativity, a circular force of causation operates. America has a number of cultural attributes that the BRIC countries do not have, and that both Japan and Europe by degrees lack. These attributes, which can be aggregated under the heading of 'the cultural uncanny', gives America an edge in both power and learning, especially higher learning, that none of her rivals in a century have been able to match. This does not make the American future, or anyone else's future, certain. But it does suggest that it is unlikely in the century to come that, in the crucial matter of peak creation, much will change. As America deals with its huge public debts, the amount of public monies going into higher education will decline. This will affect America's relative performance in international higher education. Yet the high-end intellectual work that generates precocious levels of creative output is the reserve of a small number of intellectual actors in a tiny number of institutions (not all of them universities). The resourcing of these actors is unlikely to fundamentally change. More importantly, the cultural conditions that give rise to such actors, and the institutions that support them and allow them to get on with their work unimpeded, are extremely rare and very difficult to reproduce. America has a cultural world that is conducive to high-end thinking. The challenge for its challengers is to match this. This cannot be secured by money alone. It is a rare, intangible, and difficult-to-define state of affairs, and as such is likely to elude even the most ambitious rivals.

Francis Bacon reckoned that knowledge is power. The converse, though, is also true. Power is knowledge. Powerful states tend to produce major centres of learning. Sometimes this is a way in which power translates into status. One function of higher learning is to invest its practitioners and the society that supports them with kudos and importance. More practically, institutions of higher learning teach and qualify the experts and bureaucrats that staff the offices of the state. Today, these certifying institutions are mainly universities. Tens of thousands of universities exist worldwide. They qualify hundreds of thousands of graduates for state occupations of various kinds. As social connections over time have

declined in importance for job seeking in general, they have been replaced by degrees and diplomas. Preparation for the most important offices in the most powerful states, though, involves more than qualification for office. It also requires training in the legitimating of power. The validation of power, and the justification of the policies of the state, is an intense point of articulation between the university and the state. Powerful states resource universities in part with the expectation that, when required, they will help make good the periodic legitimation deficits that states suffer from. This is not always the case in practice. Sometimes university actors try to de-legitimate the state, calling its validity into question. But, on balance, knowledge as both qualification and legitimation for power give leading states reason to build and maintain strong university systems, even ones that periodically annoy the state.

This has become especially so as economic growth has become increasingly important to the legitimation of states. Governments in democracies can expect electoral strife during economic recessions. When Communism failed as a legitimating ideology, many Communist states collapsed. This did not happen in China, because the ruling Communist party found an alternative ideology of economic growth. In the thirty years from 1980 to 2010, China has grown at 10% a year, unprecedented in economic history. The Communist Party of China as a result has been one of the few Communist parties around the world to survive in power. As states have come to rely on economic growth for validation, so in turn economic growth has become a function of knowledge. Industrialism in the nineteenth century forged an intimate tie between science and economic life. Industrialism was the result of science applied to economic processes and production via technology. Some rapidly industrializing states accordingly have sought to demarcate scientific from social knowledge, promoting engineering or biology and downplaying the cultural and political disciplines. But this distinction is difficult to maintain in practice. In part this is because successful states draw on socio-cultural forms to sustain their own legitimacy. As well, the more advanced an economy is, the greater the socio-cultural component of the goods it produces. As advanced societies develop, they expand the production and consumption of services in areas like welfare, health, education, and transport. The nature, efficacy and quality of these goods are in part social in nature. Usually with a time lag, this is then matched by the growth of cultural, creative and media industries. Any technocratic path of industrialisation consequently has built-in limits.

Geo-Politics in the Twenty-First Century

Making a prediction about the future is risky—and in some sense futile. In part this is because predictions change the future. Whatever bad thing is predicted, social actors will work to avoid that outcome. Whatever good is predicted, social actors try to enhance that good, and in doing so often create unpalatable consequences. Despite this, we still make predictions about the future because we are invariably interested in what to avoid and what to pursue, even knowing full well that human actions are ambiguous, and even the best outcomes are mixed in nature. In short, the human condition is both tragic and comic.

If powerful states produce influential systems of higher education, it follows then the future of higher education is partly a function of the rise and fall of world states. The most visible face of this rise and decline is geo-politics. If we go back to 1945, the end of World War Two, there were three powerful states—the United States, the Soviet Union and the United Kingdom. There were two vanquished states, Japan and Germany. Would it have been possible in 1945 to predict that, forty-five years later, in 1990, the Soviet Union would have collapsed and the United Kingdom would have shrunk to the level of a middle-sized power? Who could have predicted that Germany and Japan would come back as economic powers but without a matching military capacity or will? In George Orwell's novel *1984*, published in 1949, three totalitarian superstates, Oceania, Eastasia and Eurasia, struggle for power. In 2000, Oceania had some kind of reality in the shape of the distinctly un-totalitarian alliance of America, Australia, and the United Kingdom. East Asia was a powerful economic region, but the states in that zone all had deep antipathies to each other. Eurasia on the other hand was divided between West and East in a division that originated in the days of the Roman Empire. Western Europe, the symbolic home of the West, was united after centuries of war in the European Union, a strange entity whose principal medium of integration is bureaucratic regulation and supra-national law, but whose constituent members retain national sovereignty for many purposes, not least of all their armed forces, making the global projection of power, the chief measure of a super power, a hypothetical rather than real possibility for Europe. Among Western European states, the once great powers of France, Germany and the United Kingdom have diminished status. Germany's disastrous totalitarian experiment left it wary of military power. France can only muster

influence in what was once the francophone colonial world. Great Britain, which has retained some serious interest in military affairs, can now only project global power through its alliance with the United States. Europe as a whole, exhausted by the wars of the twentieth century, and protected by American nuclear power, chose peaceful retirement over the active assertion of power. Europe's priority became the welfare state rather than the warfare state.

Thus, in 1990, the United States emerged from the Cold War as the world's sole super power. The French declared the United States a hyper power. This was not meant as a term of affection. Most of the middle-rank powers, aside from the United Kingdom, were resentful of America's power. Most experts on power agreed. They didn't like American power. They debated whether the United States was a modern version of Rome. They hoped it was decadent like Rome eventually became. In 2001, a Goldman Sachs analyst coined the term the BRIC states, standing for Brazil, Russia, India and China. This set in train a series of commentaries that ended in 2008 with the popularization of the term the 'post-American world' by the journalist Fareed Zakaria. At the heart of this prognostic trend is the view that America will be matched or even overtaken by new economic powers such as China or India. Yet it is barely credible that the world could have gone from having one American hyper power to being a post American world in less than twenty years. In truth the observation of Samuel Huntington (1999) is much closer to reality now and for the foreseeable future. 'There is now only one superpower. But that does not mean that the world is unipolar. A unipolar system would have one superpower, no significant major powers, and many minor powers.' Rather what the world has is 'a strange hybrid, a uni-multipolar system with one superpower and several major powers.'

The single super power, the United States, has its share of difficulties, going forward notably its high level of public debt (Marron, 2010). American public debt rose from $6.3 trillion in 2008 to $8.2 trillion in 2009, and is projected to reach more than $20 trillion in 2020, at which point it will amount to 85% of the estimated GDP for that year, and will cost $900 billion in interest repayments (five times the level of repayments in 2009).[2] It will approach the levels of total public debt relative to GDP that America had coming out of World War Two. At its lowest post-war level, in 1974, the US public debt to GDP ratio was 23%. In 2009, the US federal government spent $1.67 for every dollar it collected in income. America also faces in the coming decades the additional sobering prospect of billions in

unfunded liabilities for federal entitlement programs and state employee pension programs. This is implicit debt. The state can reverse its indebtedness either by imposing higher taxes, cuts in spending, or by better national economic performance that generates greater tax revenues without higher taxes. If not, then on one projection by the US Office of Budget and Management, the total public debt will equal 200% of GDP by 2035. The recommended debt ceiling for states in the European Union is 60% of GDP.[3] In the US it averaged 40% from the 1950s through the 1990s. Indebtedness has a number of consequences. It means a shift of spending from education, health and defence to interest repayments.[4] In 2010, the US federal government will collect $18,276 per household in tax, yet will spend $31,406 per household. Of this spending, $1,585 will go to interest on the federal debt. Money costs money. Later generations must repay today's borrowing—a presumptuous burdening of the future. Too much government borrowing also crowds out lending for private investment (Committee on the Fiscal Future, 2010: 29-30). Sources of capital are finite. From the eighteenth century onwards, states pondered the long-term predicament of public debt. Anglo-American republican thinking especially emphasised the virtue of low state debt. Debt is an easy option in the short term for states wanting to deliver more public (welfare-warfare) goods without imposing higher taxes. States can print money to cover their deficits, but that simply creates inflation, which is a hidden tax.

The American debt problem is serious. The solutions to the problem create their own problems. Higher taxes beyond a certain level discourage enterprise. Spending cuts reduce public goods. Given their size, education and research, defence, and health cannot be immune from cuts. American military and education spending have an international face. They are ways in which influence is projected to the world. Debt will place significant pressure on American education and military spending in the medium-term future, unless the innovative power of the American economy kicks in, and we see the rise of a new leading economic sector as occurred with information and communication technology industries in the 1980s. As with all such projections, there are many contingencies that make anticipated outcomes very uncertain. What needs to be understood is that America is not alone in facing problems. Any major power in the world today faces issues as deep going and generally much more deep going than America does.

If you doubt this, then consider the condition of the BRIC states, the hope of the post-American world. A comparison of gross domestic product at purchasing power parity

(PPP) per capita shows the following. In 2009, the GDP of the United States was $46,443 per head, Russia $15,039, Brazil $10,456, China $6,546, India $2,932.[5] There is no doubt that countries with huge populations like India (1.1 billion) and China (1.3 billion) can aggregate resources for limited strategic interventions above the level of their real economic status. But keep in mind equally that the United States is the third most populace country in the world (0.3 billion) and is 7 times as productive as China. Between 2010 and 2050, America will add 100 million to its population. The much more populace China in the same period will only add the same number. Like Japan, China has an ageing population. In 2050, 25% of Americans will be aged over sixty compared to 31% of Chinese and 41% of Japanese. From 2000-2050, the American population of working age will increase by 42%, while Japan's will decrease by 44% and China's by 10%.[6] Ageing populations are less dynamic, more risk averse and represent a relatively greater welfare cost. China's economic miracle of 10% growth per year for the past 30 years is remarkable. It is also obvious from the development of its new cities, that China has mastered a template for real urbanization and modernization. Having said that China, though, does not have an integrated national market (it failed to develop a national rail system in the nineteenth century, and is still a collection of regional economies), it suffers systemic corruption, the absence of the rule of law, the lack of intellectual property protections and it does not have a mature banking system. Without continental networks, effective copyright and patent law, procedural honesty, and an autonomous private banking system, China will never be a first-rank economy. Without very deep economic pockets, the sustained conduct of modern warfare is impossible. The only country that can do that is the United States. China, as a major power, but not a super power, can exercise influence. As a developmental state, it can (for example) effectively play targeted resource politics such as tacitly keeping the generals in power in Burma because of that country's oil reserves. That is a real exercise of power but it falls far short of the capacity for sustained military interventions on the scale of multi-year occupations or a world network of military bases. The latter is the chief criterion of a super power. It has to be able to enforce the freedom of the seas around the world and ensure the free flow of global commerce and traffic.

What applies to China applies even more so to India, Russia and Brazil. Brazil is the largest armed force in Latin America but it has neither ambition nor capacity to project beyond the region. Russia has a sizable military and nuclear force, energy reserves that give

it international leverage, and a growing hegemony over its neighbors. However its tendency toward political autocracy and economic oligarchy, and its dramatic long-term population decline, leave it with a political culture, economy and demography that fundamentally limit its capacity to create wealth. Every year Russia has 800,000 fewer children in school. Russia's fertility rate is 1.4 live births per woman, far below the replacement rate of 2.1. India has grown at 6% a year for twenty years, creating a sizable middle class. But, as in China, the other side of the rise of the middle class is a vast population of very poor people. Two hundred million, each in China and India, enjoy a modest affluence. The rest of these populations, though, live in grinding poverty.

The exception that defines the norm

China has half the Gross Domestic Product of the United States and four times the population of the US. It is a rich state with a poor population. Rather than spread its wealth, China pursues a highly in-egalitarian strategy that directs resources to targeted areas like military force and higher education, and the development of cities for the middle class. There are two Chinas. Urban China has a modern-style infrastructure that rural China lacks. In-egalitarian development allows a state with a poor population to be a world player for certain purposes. Since 1995 the Chinese state has directed supererogatory resources into higher education and research and development, particularly in the sciences. This is a technocratic development strategy. The effect has been to create a research development bubble.

Between 1996 and 2005, Chinese investment in R&D as a proportion of GDP rose from 0.57 to 1.35 per cent. In the first five years after 2000, R&D investment increased at an annual rate of 18.5 per cent per year (Marginson, 2010: 217). In 2006, the Chinese government announced a plan that would see that figure rise to 2% by the end of the decade and 2.5% by 2020 utilising a mix of state and private funding. The goal is for China by 2020 to spend $110 billion annually on R&D. That would be comparable with US and Japanese investment in R&D (Einhorn, 2006). In 1995, the Chinese government decided on a policy of targeting select universities for heavy investment in research. It designated an elite stratum of Project 211 research universities with around 100 universities in the cohort. It lifted expectations of publication in international journals. These policies have had a visible

impact on China's science research output. Between 1995 and 2005 the annual number of scientific papers rose from 9061 to 41,596. The output of papers grew by 16.5 per cent per annum (Marginson, 2010: 216). This leap was matched by a promethean expansion of China's university system. In the period 1998 to 2005, the number of tertiary students in China increased four-fold (Marginson, 2008).

The upshot of this is clear. China's science output is increasing and is being internationalised. The number of R&D laboratories throughout China has proliferated. Many international companies have opened R&D operations in the country. Motorola in 2006 had 16 research centres across China. In 2010, when Google stopped serving search results from mainland China, in response to censorship, it remained committed to its R&D operation in the country. The Chinese government's official view is one of support for industry innovation and the development of cultural and creative industries. But here we encounter a major conundrum. To understand this conundrum, let us first draw an analogy. Most wars are won by the smaller not the larger force in a confrontation. It is not obvious that the targeting of resources by a technocratic development state can deliver first-class research outcomes. This is especially so when the technocratic strategy is run by a highly autocratic state. Nineteenth-century Germany is the only example we have of autocracy producing a creative academic culture. Germany had three features that China does not have. It was politically decentralised for the crucial period when key research institutions such as the University of Berlin were created. Secondly, it was culturally decentralised. That is, it was a confluence of Protestant, Catholic, Enlightenment, and Jewish cultures. The very fact that Germany was one language but many states encouraged the kind of uncanny cultural environment that stimulates first-rate thought. Thirdly, Germany was a science and technology leader in the nineteenth century but not in opposition to general culture. German science was first-class, and one of the reasons for this was that a broad high culture continued through the period to enrich science. Thought at the highest level has common features, whereas, at the second rank, whether in the sciences, humanities or social sciences, academic work is notable for its emphasis on analytic separation rather than the more audacious kinds of intellectual integration. Thought at the highest level has common aesthetic qualities. The technocratic approach produces routine laboratory science just as it does discipline-based humanities and field-based social sciences. These focus on filling in gaps in knowledge. They do not produce the kind of knowledge that reshapes knowledge.

China in the twenty-first century will produce a large quantity of research. It will improve its standing in international research ranking tables and it will thereby satisfy its national pride that it is a leading knowledge nation. But the reality is that only a tiny handful of states in history have produced exceptional science or exceptional letters as opposed to routine science and routine letters. The exceptional is exceptional. But the irony is that it is also universal. It is universal because it is exceptional works that are widely read, viewed or otherwise consumed, and that endure. It is the exceptional that finds a large audience and that attracts on-going attention. It is the kind of thought that shapes thought. Most articles or books on Google Scholar register anything between no citations and a handful of citations. John Rawls' *A Theory of Justice* (1971) in 2010 had over 29,000 citations. This is not just what bibliometric and benchmarking experts call impact. It is not simply that Rawls is read and cited as an influence on someone else. In most cases impact is a short-term effect. It is a product of an academic convention of citing contemporary literatures, and is a measure of shallow influence. Conversely, many profound works are obscure when first created. Deep influence thus is only measurable over the very long term. It is visible after forty or fifty years or more. Major works persist in their influence over long periods of time, even ranging across centuries and in a tiny number of cases over millennia. Often such works coalesce into a body of work that exists as a set of concepts. The latter is especially true of science.

My reference to Rawls is not at random, for he is precisely a good example of what highly creative societies produce. The world is full of smart people. All societies have very intelligent members, but very few societies in history produce large numbers of first-class works in the arts and sciences. No amount of boosterism, or measurements of routinized output, can get around that simple fact. Why this happens is a puzzle. A small handful of societies develop—for periods of time, some more enduring than others—a set of qualities that induce high levels of collective creation. These qualities might be best summed up under the heading of the cultural uncanny. These are societies that collectively exhibit high levels of ambiguity, metaphor, doubling, wit, paradox, and abstraction (Murphy, 2010a). These are qualities that are conducive to imaginative thinking. They are qualities that apply to both the arts and sciences. The cultural uncanny was part of the founding Protestant culture of America. Calvin's God predestined some believers for salvation. That was predetermined. Yet Calvinists believed that, through their free choices to work hard and be

moral, they could find signs of being saved. American Calvinism fused freedom and necessity, making it almost the same thing. Long after America forsook Calvinism, the effects of the uncanny structure of American culture is still felt. The word that the American philosopher John Dewey (1934) used to describe it was 'experience'. Experience embodies the uncanny union of the old and the new, the contingent and the necessary, that which is anticipated and that which is consummated.

When John Rawls fused social contract theory with the philosophy of intuitionism, bringing together a notion of rights with a notion of primary goods, he was operating in this hallowed domain. His ingenious idea of the veil of ignorance dramatised this, reframing the social contract as an intuitive what-if thought experiment. There is brilliance in this. It is a brilliance induced by a breadth of imagination. The idea of experience points to the inseparability of phenomena. What this hints at is that the act of imagination is not the work of the vivisectionist but rather is something that is integrated, and that draws elements, often highly disparate elements, together into one. An act of imagination is not something that government policy can create or anticipate. Governments habitually fund ordinary science and the commonplace humanities. These are defined by discipline or field even though it is well know that creative breakthroughs occur across disciplines and fields. This means that most spending on research is misdirected. It is a far from perfect allocation of resources. We should never forget that Einstein did his greatest work while employed at the Swiss Patent Office. Acts of imagination are elusive and rare. They require leaps of faith. When they happen, successfully, the rewards reaped are immense. But anyone in 1960 would have been brushed aside if they had said that the next promising step in philosophy would combine something of John Locke and G.E. Moore. It is exception cultures that make such things possible.

America has an exception culture. It does not exhibit this continuously or always widely. It does exhibit it enough, though, to make a difference. America produces a vast quantity of routine science and commonplace humanities. Its state funding mechanisms are much like anywhere else. Its universities as a whole tend to be fairly conformist, coloured as they are by a domineering form of liberalism that is pretty much the same wherever you go. The exceptional is, after all, exceptional. But it does exist. The reason why it exists is deeply woven into American history. It goes back to the American Foundation. Onwards from the Founders, who were steeped in philosophy and science, it waxes and wanes. Its high point

was the turn of the twentieth century (Murphy, 2010b). The 1980s also stood out. In general America intellectually is less impressive today than it was a hundred years ago. The mono-culture of liberalism in the universities has not helped this. But America's exception culture still persists. It has never reached the intellectual peak of the European Renaissance or Enlightenment, let alone the peak of Greek antiquity. Nonetheless America was the most creative nation in the twentieth century by a large margin. European cultural power especially in the second half of twentieth century declined sharply.

The rich states that are poor show no signs of developing contemporary exception cultures. It is not that they don't have suitable cultural legacies. Taoism, Buddhism and Hinduism all contain threads or aspects that could produce an exception culture. The European and Greek corpus is also there for the plundering. But in reality the research game in these countries is not a cultural enterprise but an institutional one. It is not set in motion by deep uncanny traits. It is a game of power and status and incremental advance. Everyone would like to beat the Americans at their own game. The trouble is that many misunderstand what the American game is. You cannot beat someone at a game whose rules you think you understand but in fact do not understand. Of course the American game is one of power, status and incremental advance. So is everyone's game. But as well as that, there is game within a game played by the Americans. Behind all the institutional acumen and sensitivity to rank and procedure is also some space for the exception. Some very odd people are let loose in that space. These are the kinds of people who don't care about rankings, ratings, or rules of the game. These are the ones who set the whole game in motion, who create works for fields that do not yet exist, and provide fodder for the endless books that are not yet written that will define those fields. These are the exception whose example creates the norm that everyone follows.

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Notes

[1] Excluding the special case of Hong Kong universities, in the most recent rankings The Times Higher Education Supplement includes Tsinghua University and Peking University in its top 100 universities. The Jiao Tong index includes no mainland Chinese universities in its top 100. The Leiden index includes Peking, Tsinghua and Zhejiang universities in the top 100.

[2] Source: Congressional Budget Office. The annual US federal deficit currently exceeds 10% of GDP. To achieve a public debt ratio of 60% in 2020 would require annual deficits not greater than 3.5% of GDP in the intervening years.

[3] As a prelude to its 2010 financial crisis, Greece's debt-to-GDP ratio reached 115% in 2009.

[4] Because the US dollar is the international reserve currency, used in international transactions and perceived as a safe haven for investors, the US is able to borrow money at competitive interest rates.

[5] Source: International Monetary Fund, 2009.

[6] Source: US Census Bureau, International Database. Nevertheless today the US labor force growth is slower than it was in the 1970s and 1980s, and a smaller part of the population is working and paying taxes (Committee on the Fiscal Future, 2010: 30-31).