

# Requisite Organization Stratum Concepts Applied to China

Jim Collinson



Implications for the “West”

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### 1. Preface

Elliott Jaques’s<sup>1</sup> research into management complexity led to his theory of organizational design. He described an increasingly complex

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<sup>1</sup> *“Elliott Jaques, writing in the 1970s, described a pattern of growth of capacity to handle managerial complexity. Jaques described the changes in capability, and in capacity to handle complexity, as one moved from one stratum to the next as analogous to ice changing to water, and then at the next boundary, water changing to steam: or like a change in state.*

*While comprising a very small segment of the population, people functioning at Stratum V and above as leaders, policy makers, innovators and other influential roles have a unique capacity to understand social and economic issues, frame strategies to address them, and organize and manage capacity in the society to address them.”*

Excerpts from “The Talent Upshift”, Don Fowke and Bonnie Fowke, Global Organization Design Conference, New York, 2014

hierarchy of managers’ capabilities for predictive capacities and future thinking regarding direction and decisions on effective and competitive options. His term “time span of discretion” helped differentiate managers into 8 groups, or strata, based on their decision-making capacity for longer term time periods. These strata also accommodate decisions that would take varying lengths of time to implement, in order to benefit from a future market or circumstance.

Markets evolve as technologies change and advance. The pace of change today is much faster than ever: exponentially in the case of technology. This complexity of technological evolution with concurrent global market competition for both purchases and sales, tests the capacity of managers to decide how their organizations or government departments might best organize and staff themselves to be relevant in changing times.

This paper is put forward to encourage discussion about the future long term decision-making capacity of governments and corporations. These critical managerial skills are needed to

move forward with sufficient foresight and elasticity to operate and compete in a world of greater international competition and ever increasing rates of change.

China's significant growth serves as a case example. It may also provide a benchmark for others, and offer a range of opportunities for new and/or joint ventures.

## **2. Introduction**

My wife (Carolyn) and I recently spent about a month in China, visiting several cities in the eastern half of the country, along with six World Heritage Sites and a cruise on the Yangtze through the Three Gorges. We came away with some impressions that provoke thought and discussion. In many respects, we saw China from within a bubble, relying heavily on fully bilingual guides, but were also able to get outside the bubble through other sources both before and after the trip.

These impressions (and I put them that way because one cannot comprehend in any depth, the details of China in such a short period of time) are based on observations of social, economic and infrastructure aspects of Chinese life (numbers, cheerfulness, openness, work ethic and future visions). The pace of economic and social change, the rapid development of infrastructure, and the apparent planning capacity and economic focus of government was visible for everyone to see.

Our travels included four international and six domestic flights, a four-day

cruise on the Yangtze, a trip on their high-speed rail system, over a dozen local chartered bus trips to various sites and several ferry trips, including one on a hydrofoil from Macao to Hong Kong.

Most impressive was the capacity of the Chinese for precision logistics. When we arrived in Beijing from Chicago, our bags were waiting for us when we got to the baggage area. This proved to be a consistent level of service throughout the trip – all airports were large (by Canadian standards). The aircraft we used were 737s. We boarded on time, left to the minute according to the schedule and arrived on time. This was the case until we arrived at Hong Kong, where we seemed to have to wait for everything (good preparation for the more extended wait we had in Chicago while our bags made it from one aircraft to another). This is one example of precision organization.

Although airports we used served cities varying from 8 to 34 million population, there were no significant lineups for check-in, security or boarding: it was all seamless at every location. Those activities arranged in advance were efficiently provided on time and with no waiting. We usually got quick clearance through airports compared to regular travellers.

As tourists, we had Chinese visas for the tour. Information provided to acquire them had to include detailed itineraries, hotels, etc. At each, our passports were checked against hotel, airport and train station data bases, but it was all done efficiently and unobtrusively. The government

would have known where we were at any point.

That said, it was impossible to deviate from the planned itinerary. The tour company changed one of the activities planned without notice, but we found that activities on the itinerary could not be modified by our group, even if everyone agreed to the proposed change. We found that requesting a change in our agenda (e.g. to add a visit to a museum instead of touring a market) impossible to achieve because the local guides had no discretion and had to check with their headquarters.

In addition to manufacturing and technology and infrastructure development, it became clear that tourism, both foreign and domestic, is a major industry in China. There are huge job benefits and myriad retail sales opportunities for all types of merchandise, with all price ranges in every city, town and market. Consequently, it is heavily promoted and (we suspect) somewhat subsidized by the central government.

### **3. Background**

China has a population of 1.3 billion. Everywhere one looks there are people. Whether along the mountain areas of the Great Wall, the walls of the Three Gorges above the river, or the flat topography along eastern parts of the Yangtze, as well as within the gorges, there are always people. One cannot take a picture without someone in it!



Wherever you are, you are not alone!

People were busy, happy, consistently neatly dressed and openly friendly to tourists. Children were everywhere and at no time did we see a child unhappy or being difficult. Many like to have their pictures taken with foreigners. Although we always seemed to be in crowds, there was no pushing: just people taking up any vacant space that might get them closer to where they were going. There was consistent movement and one learned not to stop or be in any way indecisive, as that would impede the flow.

Traffic appeared to be chaotic, but there were hardly any stop and go situations. The traffic just seemed to flow, much like schools of fish making progress through rapids without running into each other or the rocks. One could speculate that until about twenty years ago, most people rode bicycles, and in so doing managed to maneuver through masses without mishap, and that capacity to move without incident was carried into driving motor vehicles. Traffic almost anywhere included cars, trucks (of various sizes and designs, including

modified motorcycles with two rear wheels and a pickup box - a sort of motorized rickshaw), scooters, bicycles and concurrently, pedestrians crossing the streets. Apparently, the trick was not to stop, just be prepared to avoid!

Cars were all of recent lineage, and included, especially in large cities like Beijing and Shanghai, many luxury models. The lack of older cars simply reflected the fact that it has only been in recent years that the general population was financially able to own vehicles. In Beijing during the Summer Olympics in 2008 there were 2 million cars: today there are 5 million. This brings up the air pollution issue, which will be dealt with later in this paper.

It was impressive to see how people had modified various vehicles to meet their needs. Examples were single cylinder open engines on larger trucks, and imaginative means for loading the smaller modified motorcycle "pickups" to accommodate loads far higher than gravity would generally find acceptable: including a sixteen foot high load on a 40 inch wide box!

Part of China's growth can be attributed to the urbanization that has taken place since Mao's death in 1976. Literally hundreds of millions of people have moved to the large cities, shifting the country rapidly into a urban focused nation compared to the previous agrarian one. This happened in the industrialized world over centuries, but in China it has occurred in a matter of a few decades. It's not over yet. Although some outsiders

mumble about vacant apartment buildings, it is helpful to remember there are at least 200 million more who will migrate into the urban places in the not-too-distant future.

#### **4. A history and culture of long term decision-making.**

China had autocratic emperors until into the early years of the 20<sup>th</sup> century. They have never had a democratic government as we understand it.

Sun Yat Sen, referred to even today as "the father" of modern China, played a key role in the overthrow of the Qing dynasty, and was provisional president for a short period in 1912. He was Premier from 1919 until his death in 1925, and set the stage for new approaches to government.

Not unlike many countries after acquiring a sense of freedom from oppression, China went through some rough periods. Concurrently, the Japanese were flexing their muscles and becoming a threat. Various internal struggles persisted. These include US support of Chiang Kai-shek over Mao following the Japanese invasion in the late 1930's (Flying Tigers), and the "separation" when Chiang Kai-shek moved to Formosa (now Taiwan) and Mao took over as sole leader. China was governed during Mao's period much as North Korea is now.

Mao ruled from 1949 until his death in 1976, with negative reviews for his "Cultural Revolution" when huge numbers died. His "Great Leap Forward" had mixed results. One

action instituted by Mao, told to us by several unconnected people, dealt with severe summer heat days in southern China. Work was stopped when the temperature reached 40C, but as thermometers were only available to the government at that time, the reported temperature never reached that point: just somewhere about 39.5, or .8, varying a decimal point each day but never over 40!

Gradually, following Mao's death in 1949, China has become more modern, and democratic to a point where general public views are more openly discussed and taken into account than ever before. Concern for the "common good" is behind most decisions, so some may suffer from decisions (compensated to some degree) but the majority benefit.

However, the 25<sup>th</sup> anniversary of the massacre of hundreds of protesters in Tiananmen Square has brought out action against activists in an attempt to silence any kind of campaign to publicize this black spot on China's recent history. Detainments of some and stern warnings to others illustrate that human rights still have a way to go.

China, currently and historically, has had the capacity and the government mechanisms to make decisions on projects that have taken years to build but provide benefits over a very long term. A few examples illustrate this capacity.

The third Ming Emperor, Yongle (Emperor from 1402 - 1424), decided to repair and re-open the Grand Canal between the Yellow and Yangtze

Rivers, initiated international trade in the Indian Ocean and the South Pacific and constructed the Forbidden City and the Temple of Heaven (both now World Heritage Sites). He also authorized and saw to completion the "Yongle encyclopedia", a significant compilation of information that then existed on all subjects and all Chinese books. Given shorter life span expectations in those days, he would have known at the time of his decisions that he might not live to see their completion. It was common then to construct projects that would maintain the emperor's importance. Whatever the rationale, they were not afraid to make significant decisions that would have long term value but take considerably longer than their lifetimes to complete.

## **5. Economy, Environment and Urbanization**

Sometime this coming fall, China will surpass the US in GDP. Since 2006, China's CO2 emissions have exceeded those of the US: they continue to grow. Population growth, however, has stabilized to a large degree as family size has been limited while health has improved.

Since 1949, one of China's government priorities has been urbanization. In the intervening years, China has relocated hundreds of millions of people (peasants) to the cities and into many thousands of high-rise apartment buildings that now dominate the cities' skylines. Today, there are still 200 million below the poverty line, and lifting these into the growing middle class is one of China's

priorities, to be achieved largely through further urbanization.

China's Government today has established and manages a centrally controlled economy. Priorities are set and projects approved with little input from regions and none from individuals. All land is owned by the Government. Individual farmers, businesses and city condo or home owners lease the land they're on for a seventy year period. Should farm land be confiscated for urban development or other purposes, no individual has any say in the matter.

Farming remains a labour intensive business, compared to North American standards. In part this is due to the very small "fields" that result from terracing needed to support irrigation. In other cases, the small fields (measured in feet, not hectares or quarter sections) are fitted amongst fruit and other trees to make best use of every square foot.

New technologies are having considerable impact, and the contrasts between the old and the new were illustrated somewhat dramatically when we noticed a scooter being driven by an older man carrying two teenage girls on the back. The girls were both twisted a bit sideways so they could more easily check and text on their smart phones!

Chinese decision-makers continue to show a capacity to consider the long term. For example, just over twenty years ago, the portion of Shanghai, across the Yangtze from the "famous" Bund of early European trading days (and the Opium Wars), was an area of

rice paddies, small industry and scattered homes. Today, huge, architecturally impressive high-rise office buildings dominate the skyline. A decision was made to convert this area into a world-class business district, and today that's what it is.



20 years ago this portion of Shanghai was a mixture of rice paddies and small villages

Similarly, city subways are constructed at a pace unprecedented today in North America. In Xian, population 8 million, there will be four newly completed subway systems in less than four years: compare that with the dithering in Toronto!

Beijing hosted the 2008 Olympics by constructing a site that not only accommodated the Games, but gave the World a snapshot of what China is capable of accomplishing. The site now accommodates various events,

including conferences as well as sports.

## **6. The Three Gorges Dam**

The Three Gorges Dam on the Yangtze River is the largest electrical generating station in the world (installed capacity of 22,500 MW). Actual generation matches that of the Itaipu Dam shared by Brazil and Paraguay. The Three Gorges Dam has three objectives: in order of priority these are flood control, electrical power and improved transportation. I was told that the dam has the capacity to handle 105,000 cubic metres per second (cms). The actual high flow averages 60,000 cms and the flow at the time of the major flood that precipitated the decision was 70,000cms.

In the course of construction, about 1.2 million people were displaced, and relocated to higher ground nearby or to new homes elsewhere. The younger ones seemed to adapt well to their new circumstances, but the older ones less so.

It remains to be seen how long it will take for sediment to build up behind the dam and reduce storage capacity.

Additionally, irreplaceable historical sites and artifacts have been lost, much as happened many years prior as a result of the Aswan High Dam construction in Egypt. Although many artifacts and monuments were moved along with other affected sites, many others were covered by water and remain, some with their higher parts exposed above the level of water.

## **7. Other Infrastructure**

The rapid construction of new airports, the high speed rail infrastructure and investments in education facilities illustrate continuing long term thinking. Pollution control endeavours are beginning to be a priority, particularly in large cities such as Shanghai.

## **8. Family and Education**

Family size in China, until very recently, has been regulated to limit families to one child. This policy was in place for over 30 years, illustrating by way of example the effect of the state taking precedence over individual. It wasn't quite as rigid as most people think. Families may have had more than one child if they paid a substantial tax. Consequently, most are satisfied with one child. It also means they can afford the education their child will need to get ahead in his/her life. Given this experience, small families are preferred, fewer children means they can get a better education. Many go to special camps and schools to be exposed to new learning that will benefit them as adults.

Education is encouraged and seen as extremely important: so much so that great pressure to succeed is exerted on students in all institutions.

In the city of Wuhan, described as a "small city" ("only" a population of 12 million), there were 1.5 million students (12.5% of the population) attending either universities or our equivalent of community colleges. The focus on education doesn't stop



there. Now, children study English (international language of business) from kindergarten through grade 12. Moreover, those who can afford it prefer to send their high school age children to North America to learn the language as well as our customs, so they will be able to be more competitive when they enter the labour force. Many high school students spend a year or more in various provinces of Canada, as well as in the United States.

As an aside, Carolyn mentioned to a woman in Chongqing that the population of Canada was about the same as her city, even though Canada was a much larger country than China. Her response, with a look of shock on her face, was “Oh, you must be very lonely”.

Despite its huge population and infrastructure needs, cities include considerable green space as well as substantial plantings of trees, shrubs flowers and grass, including along roads and expressways.

It became clear that the Chinese have a culture of entrepreneurship that goes back a long way. Outsiders seeking business arrangements with Chinese firms need to be very careful: it is essential they safeguard their assets in a comparatively strange business environment based on different values and practices than exist at home.

## **9. Tourism and World Heritage Sites**

China signed the UNESCO World Heritage Convention in 1985, and

immediately prepared submissions for a number of sites. The first group came forward when I chaired the World Heritage Committee in 1986 and 1987. These included the Great Wall, the Forbidden City and what is generally known as the Terracotta Warriors near Xian.

On our recent trip, we were pleased to note that, in spite of huge crowds of visitors, the sites had been very faithfully restored and managed, making any restorations evident while stabilizing the historic artifacts and structures according to internationally accepted criteria for cultural sites. This included provision of access and interpretation for large numbers of tourists while protecting the basis for the World Heritage inscription: a win for all!



Terracotta Warriors near Xian

China now has 45 World Heritage Sites, most are cultural, but several are mixed natural/cultural sites and the rest are natural, including the panda reserves. Initially, China received international recognition when the earlier of ones were first listed. Now, UNESCO benefits from the publicity generated by these well-managed

sites which are visited by millions of tourists annually.

China is looking to the future while respecting the past.

### **10. Government and Business in China compared to Canada and “The West”**

Whatever one thinks about the government in China is probably wrong. It's a complicated system from an outside perspective, but the results are impressive.

Amongst the essential differences between China and “The West”, are the priority they give to considering the “collective good” for society as a whole, and a long term vision for the country.

Decisions are made with a long term view of a better society in general and a business environment that is competitive worldwide. The latter simply builds on a widespread culture of entrepreneurship that at times pushes the boundaries of integrity and appropriateness as we might understand those terms. Honesty and integrity are not valued in the same way we understand them.

To this end, they have recognized that population growth must be managed, education is essential and appropriate infrastructure is a necessary component of future competitiveness.

Governments in “The West”, however, (with few possible exceptions such as the UK and Germany) seem to be obsessed with addressing the daily news cycle and other very short term

issues, rather than attending to future needs. Spending huge sums on advertising the benefits of the Keystone pipeline, or pretending that various projects in a similar category stapled together, represent a “plan”<sup>2</sup>, are examples of this short term *ad hoc* thinking.

Ideology plays a much greater role in “the West” than in China. China has a “communist” system yet is perhaps the most effective “capitalistic” country in the world. Why? Because they are not restricted by a rigid view of their system, but are prepared to adapt to be competitive and innovative, and are not afraid to invest in long term programs.

China hires the best graduates to work in government, to strengthen their capacity to look ahead. Canada's government system has become sufficiently toxic to no longer attract the best. It has decimated its government libraries, cut research and muzzled civil servants so the public cannot access their findings (in many cases even their phone numbers). Thus, the government has lost its capacity for developing information useful for long term thinking. This becomes reflected in declining overall competitive capacity.

Business in the west spends too much time trying to make their stocks appear better and better in the daily market: a focus that has evolved to a

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<sup>2</sup> During a speech May 15, 2014 in New Maryland, New Brunswick, Harper announced a “conservation plan” that consisted of seven *ad hoc* projects across Canada.

level of prominence beyond its relevance thanks to media and investment advisors, neither of whose practitioners tend to have capacities in longer term economic insight. The latter receive their rewards through buying and selling stocks, not for their acumen in selecting stocks with long term growth potential. Just like the politicians, they respond to media information on daily (in their case) stock market movements.

To meet long term needs for growth and competitiveness, both governments and businesses need to take a realistic long term view with compatible vision/direction priorities. This implies investments in research (both basic and technological applications) to prepare for the competition from elsewhere as well as to set its own future into perspective. A company that can show it is ready for the future will ultimately have greater appeal than one that simply improves its short term share value by, for example, aggressive cuts to staff or deferral of capital needs, to improve its short term bottom line.

Similarly, governments need to identify essential staffing needs, research, infrastructure, and then support it. They also must play a clear role in data collection and dissemination within its purview, and make it readily available to researchers and planners.

Education must be tailored and funded toward medium/long term goals at the college, technical and university levels. Education needs to be accessible to all who qualify. These are basic elements for both

governments and businesses to establish a foundation for long run planning for investment. To paraphrase Tevya in *Fiddler on the Roof*, “on the one hand research, education and data availability is essential, on the other hand...there is no other hand”!

## 11. Future Directions

China has serious problems, however. The important fact is that these difficulties are receiving attention.

First, a centralized system like China is more open to corruption.

China has begun to address that. They have recently found a group of senior party members guilty of corruption, bribery and embezzlement, and sentenced them to death. In this particular case, those found guilty were involved in murders as a component of corruption. Others are on trial for “moral corruption”: for having three mistresses (one does have to wonder how many might be acceptable).

Second, China’s emphasis on “the state” as opposed to individual freedoms, will continue to be a challenge to the central government in a world where social media is changing information dissemination in scope and speed.

It should be noted that convicted drug dealers are “shot”, and drivers convicted of driving under the influence of alcohol lose their license permanently. Hence, there are very few drug and alcohol issues. But, these solutions are examples of a very

different value placed on individual human rights in China, compared to the west.

Third, air and water pollution (with land likely to be added to the list) are beginning to be recognized as a factor in productivity, as well as health and well-being. This is currently being addressed at the local government level<sup>3</sup>, but is of such a magnitude that it will soon become a national issue.

Huge emissions of CO<sub>2</sub> result from cement production (most of which is used internally) and coal-fired electrical generation. The rapid growth in car ownership has also made a considerable contribution to air pollution.



Coal mines and loading operations along Yangtze River: note smoggy air!

There are three factors that will determine China's response to pollution, particularly air (but water and land pollution generate regional and local concerns that will also need to be addressed). These factors are:

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<sup>3</sup> Shanghai even devotes a full floor of its impressive urban planning museum to how they are addressing pollution.

- a. Climate change is becoming a serious concern as sea levels, often augmented by storms, impact low-lying coastal areas;
- b. Air quality is affecting health, particularly in urban areas, and this in turn impacts labour productivity; and
- c. International pressure to improve environmental conditions.

Arguments have been made that some responsibility for China's environmental problems rest with those who buy their exports. This may need reflection within the context of world trade, and will need to take manufacturing processes of different countries into account. No-one is telling China to use coal to generate electricity, for example, but ultimately market conditions combined with some international conventions on appropriate use of air and water will have to come into play.

Given China's past record, once the national government determines that their CO<sub>2</sub> and other environmental issues will affect not just their trade but their own prosperity, they will address environmental quality head-on. When that happens, they will soon be far ahead of all "western" countries due to their centralized capacity to act on long term needs and priorities.

This capacity to act quickly and effectively, especially in terms of environmental improvements, will seriously challenge "the West" as early as the medium term.

In North America, we still have climate change deniers, even though increased

numbers of rain and snow storms, droughts and temperature variations outside the norm are hard to ignore. Many who are opposed to dealing with climate change are doing so based on some strange political anti-science belief. This is perhaps combined with a short term desire on the part of powerful industrial lobbies to convince the public of the need to protect those industries that should reduce their environmental footprint with a practical plan and a timetable that's effective. Only recently have the powerful US coal lobbies lost support in favour of improved air quality and reduced CO2 emissions.

China, in a sense, has an advantage because the government owns all the land, and can decide what happens on it and when. Because they take a long term view, they are less hampered with short run side-effects, relying more on the notion of a "Pareto Optimum" form of compensation to balance off negative impacts on those most immediately affected.

Critics often comment on certain weaknesses within China's economy. In the short term some of them are correct. It is important, however, to remember that China's government and business leaders and their senior staff are well aware of these, and have the capacity at hand to address them effectively.

For example, current surplus housing in the form of vacant condo buildings cannot be assessed in western terms only. The problem is short term: there is a continuation of rural to urban migration, and they are ready for it. They are growing their capacity

for research (although still happy to "find" new technologies in/from other countries).

China's growth rate is declining, but it remains considerably higher than in western countries. In part this rate reflects the growing movement from rural to urban type employment, and as that slows and pressure grows for higher pay to remain competitive for labour, some of the "product competitiveness" will drop to more realistic levels. This form of adjustment may appear as a "relative recession" compared to past performance, but clearly not a recession in "western" terms.

## **12. Concluding thoughts**

For the West to remain competitive over the long term, attention needs to be given to the education, selection and appointment of knowledgeable people for establishing a culture of forward thinking so that societies everywhere can improve their lot. Support of research and infrastructure investments are central to this.

Short term thinking in Canada, the US and other "western countries" will drag economies and society in general down to a level of existence where people will begin to question their leadership. The "middle class" is under threat in North America, whereas it is growing almost exponentially in China. The consequent shock of decline in North America will take time to be absorbed and much more time to ameliorate.

This can be avoided, but not without governments and businesses shifting

their thinking and priority setting from short-term crisis-response to long term planning and investment initiatives.

Looking at China through the Jaques lens of “organizational design”, applying the concept of “time span of discretion”, helps explain much of China’s economic success in recent years. Although they don’t have all the checks and balances in place as in the “West”, they have a far greater capacity to make long term decisions and take coordinated forward-moving actions than western countries.

This reflects two factors: the government hires the “best” people available to guide their planning, and are followed closely in this respect by their “Private sector”. The rewards from long term planning vs short term are evident from their recent social and economic progress. Short term decisions defer future options, and when this is a continuing pattern, those choosing it will fall farther and farther behind.

The West may not like China’s slow move towards improved individual human rights, but can learn from their insistence on hiring people who are at the Stratum V and above. They can see the future and offer options to address it. It is also true, based on Jaques’ research, that bright young people don’t start at level V or higher, they grow into it over time. Given this, western governments need to consider hiring the best when they’re young, and keep them so they can evolve into higher strata levels and contribute to dynamic growth and sustainability of their country’s future.

Continuing to make short run decisions based on short run tactics alone takes a country or business out of the running for a key presence in the future international economic, energy and environmental scene.