**The Working Paper**

Jonathan Sim (jyhsim@ntu.edu.sg), Jan W. Vasbinder (jvasbinder@ntu.edu.sg), 17 Jan 2015.


**Introduction**

Rudyard Kipling's famous poem about East and West begins with the words, "Oh, East is East and West is West, and never the twain shall meet."[1] Even today, as we live in a globalised world where rapid development have led the East and West to be highly interconnected and dependent on one another, there is a sense that East and West do not understanding each other. There have been rising tensions between China and the West, with each side expanding their military in response to the other's expansion. There is a risk that if this carries on – or rather, if there continues to be no development of understanding and respect for each other's cultures, backgrounds, and motives – a simple misunderstanding may be all we need to spark an armed conflict between the two.[2] We believe that underlying such tensions between China and the West is a barrier that prevents both sides from accurately reading each other's motives and intentions.

This working paper is based on discussions of two small workshops,[3] in which that barrier was explored and where some seminal ideas were expressed about approaches to navigate this barrier. One approach we propose is to explore the coupling of Complexity Science and the Chinese way of looking at life, as expressed by its different philosophers, as a way to open Chinese and Western cultures and modes of looking at the world to each other.[4] Though they are grounded in totally different cultural frameworks, there are many striking parallels between Complexity Science and Chinese philosophy. We believe that through further explorations into this coupling, we may find new ways for the two cultures to communicate with each other without the need for either one to leave its own cultural framework.

In this paper, we will attempt to: (1) define the barrier; (2) highlight the significant philosophical groundings and historical events that shaped Chinese and Western thinking; (3) highlight how reductionism has further compounded the problem; (4) explain how we think coupling Complexity Science and Chinese philosophy might offer a new perspective; (5) propose general areas for future exploration; and (6) propose concrete steps forward.

---

[1]   Rudyard Kipling, *The Ballad of East and West*
[2]   For this reason, we chose to focus on the barrier between China and the West.
[3]   The first on 1 - 3 September, the second on 29 - 31 October 2014.
[4]   An interesting book that came to our attention only after the workshops is: Lin Yutang, *My Country and my People* (New York: Reynal & Hitchcock, Inc., 1935). The book was published before the Communist era.

# 1    What is this barrier?

From our exploratory workshops, we concluded that there is indeed a barrier between China and the West. This is not a political barrier, although it manifests itself in the many misunderstandings between the policymakers in the East and in the West. Instead, it is a cultural barrier that has its foundations in different philosophies of life, different ways of thinking, different modes of governing and different perspectives on the world. The historical unfolding of events has further shaped it.

> *"This barrier is not a political one. Instead it is a cultural barrier that has its foundations in different philosophies of life, different ways of thinking, different modes of governing and different perspectives on the world. It has further been shaped by the historical unfolding of events."*

Both China and the West have their own unique cultural frameworks for thinking, perceiving, valuing, and acting. And they have their own distinct sets of cultural assumptions, methods, and concerns. And not least of all, they have totally different languages (both written and spoken) in which they express themselves. But, even if both sides were to speak and write in a common language, it is inevitable that with their different cultural frameworks, misunderstandings will still occur.

The cultural divide between Chinese and Western thinking is very visible in Singapore, said to be the melting pot of East and West. Though the Chinese in Singapore (who make up the population's majority) are raised with a modern Western education and speak English, there is a clear divide between those who identify more with Western culture and those who identify with Chinese culture. Like oil and water, these two groups may form an emulsion, but they do not mix. Both exist separately as distinct communities. Their concerns, values, desires, perceptions, and thought processes are radically different from each other, and hence they do not get along, nor do they see eye to eye on many issues. At the same time, because the cultures are physically and politically so near to each other, Singapore seems to be the logical place to find ways to navigate that barrier.

The frameworks between China and the West are so different that the two cultures seem incommensurable. We can find this pessimism reflected in the Chinese language. On one hand, the Chinese refer to barriers such as the language barrier as 语言障碍 *yuyan zhangai* (literally: language barrier/obstacle), and similarly, to the generation gap as 代购 *daigou* (literally: generation gap). In both cases, there is the image of an obstacle/gap that can be resolved and overcome. Yet, when it comes to cultural divides, the Chinese language has only one term to describe it: 文化差异 *wenhua chayi* (literally: cultural differences or discrepancies). In fact, the use of 差异 *chayi* connotes a very strong sense of "difference." On their own, 差 *cha* and 异 *yi* already means "different." By compounding the two words together, the meaning emphasizes that the differences between cultures are so great, that it is the differences of all differences, so incommensurable that even the language itself does not offer an image to suggest the slightest hope or possibility that we could ever form a bridge between different cultures.

The rising tensions between China and the West are due to this barrier. It is essentially a clash between two vastly different ways of thinking, perceiving, valuing, and acting. This barrier is not easy to navigate precisely because we are dealing with two totally different ways of living and thinking. A cultural immersion programme, though useful for creating awareness, will not equip people with the resources to overcome

misunderstandings. Nor will a common language, because different modes of thinking can be articulated through any language, be it Chinese or English.

In the next two sections, we will attempt to give a sense of how vast this barrier is by outlining each culture's different philosophical outlooks of the world, and how their thinking have been shaped by the unfolding of their unique historical circumstances. We realize that our accounts will seem like a caricature of the Chinese and the Western worlds. This is inevitable because of the vast size and diversity of China and the West. It is not possible to give an account that is universally true for each of the two. Moreover, even though the barrier between China and the West is visible to all, it has become porous due to the interconnectivity and interdependence that has developed over the last two centuries and the exchange of people that went with it. There are Chinese who are Western in their thinking, and vice versa, but we take it that the vast majority of Chinese and Westerners still think in their respective cultural frameworks. We only wish to provide a basic understanding of the vast differences between them.

## 2      The philosophical differences between China and the West

Though the differences in the philosophical traditions of China and the West may seem subtle, they continue to shape the different ways by which Chinese and Westerners think today. Since antiquity, the early thinkers of the West such as Socrates and Plato (and even the pre-Socratics), have been asking, "What" questions: What is the world made of? What is a good life? What is justice? These kind of questions have since framed Western thinking and perception, and consequently its methods and approaches.

Chinese thinkers, on the other hand, have from the earliest of times asked, "How" questions. This was probably due to the context of societal decline and war, which led many to ponder

Tabel 1: Summary of Philosophical Differences

| Western Tradition | Chinese Tradition |
| --- | --- |
| Thinking framed by "What" questions. | Thinking framed by "How" questions. |
| Truth is important | Practicality is important |
| Abstraction is key for arriving at eternal and unchanging, universal principles. Knowledge as abstract principles that are eternal, unchanging, and universal. | There are no eternal and unchanging, universal principles. Abstraction only strips away the richness of meaning. Context and content matters greatly. |
| End-states are important. The desired state (what-ness) must be defined, and only when these conditions are met, has one arrived at that state. | Processes are important. Cycles are to be sustained and preserved. |
| Perfection is an ideal to be constantly strived for. | No perfection, but excellence in performance that can be achieved through self-cultivation. Uncertainty is part of life. |
| Ethics based on principles | Ethics without principles |
| Focus on the individual, the concept of self is an abstraction. Consequently, the conception of the "I" versus the "other," as opposites. | Focus on community. The concept of self is dependent on the context of family and society. |

about their current situation and how best to remedy the issue (like how to get food). Thinkers like Confucius asked: How do we restore order? How do we restore harmony? The reply to such "How" questions would be: "The way to do it is..." Hence,

in Chinese thinking, there is an emphasis on discovering 道 Dao (which can be read as: a way, The Way, or ways), a solution, a means, an answer to the "How" question[5].

These were the significant questions that have shaped the two cultures of thinking. In the rest of this section, we will elaborate on how the "What" and "How" led to very different philosophical assumptions and outlooks about the world.

### 2.1    The Western Framework

The philosopher, Alfred Whitehead commented, "The safest general characterization of the European philosophical tradition is that it consists of a series of footnotes to Plato."[6] Following from Plato, the Western tradition has largely been concerned with abstracting from concrete cases to arrive at a principle or ideal form that is perfect, universal, eternal and unchanging. It is not enough just to understand and know *this* specific bee, but one needs to come to a definition for a universal bee-*ness* that applies to all bees. Similarly, if we wish to live the good life, or to carry out a campaign of justice, equality and liberty, these concepts must be well-defined before any concrete action or plan can be executed. This is the basis on which modern science operates. If we wish to come to an understanding of the nature of reality, we need to isolate the subject from its context, and place it in an ideal environment or a set of fixed conditions, so that we can study it, abstract it and arrive at a universal principle.

By approaching the world with "What" questions, the Western tradition focuses on end states. To be happy, one must know what the end state of happiness is, and the necessary conditions to achieve this happiness. Then one has to create those conditions before one can declare one's self as having achieved happiness. Similarly, to have a "just" society, one must define the necessary conditions to achieve such a society, and work towards meeting those conditions. In the same way, moral actions require abstract guiding principles, either handed down from a divine being or discovered through reason. Without such guiding principles, one cannot know if one is acting rightly or wrongly.

From this perspective, it thus matters greatly whether the definition, the principle, or the state is "true". For false definitions, principles or states not only fail to adequately address a "What" question, but also lead people to deviate from the ideal end state. Because these principles or ideals are stripped off all concrete specifics, there are no concrete parameters to define when one has arrived at perfection (or any end state, for that matter, e.g. happiness or success). Even the conditions that define perfect ideals are themselves abstract. The motivation in the West for progress stems from this. Perfection is an open and endless pursuit, for there is always something conceivably better than the existing state of affairs.

Lastly, the concept of individuality is made possible as a consequence of abstraction: one can rationally abstract one's self into an abstracted "I" (a concept), stripped away of its context (and community). It is thus possible to contrast and distance the "I" from its context – "I" versus the "other" – as if it the two were indeed separate from the

---

[5]    For more information, please refer to A. C. Graham, *Disputers of the Tao: philosophical argument in ancient China* (La Salle: Open Court , 1989)

[6]    Alfred North Whitehead, *Process and Reality* (New York: Free Press, 1979), p. 39

beginning. There is also a tension between the "I" (or "we") versus the "other." To be clear, this mode of thinking is not alien to other traditions and cultures. However, the "I" versus the "other" framework features so strongly in the West that it is epitomized by Sartre's famous words, "Hell is – other people!",[7] for it is the "other" who limits the "I" in one's freedom and pursuit of happiness (in its abstract ideal). To be in competition with the "other" for the same goals and resources is not a bad thing per se. But it becomes "hell" (in Sartre's words) precisely because the "other" can and will often limit one's individual happiness in the process. The "other" is thus perceived as a threat, an enemy to one's individual happiness and chance to flourish.[8]

## *2.2    The Chinese Framework*

While the early Chinese thinkers had the concepts of true and false, these issues were not of great concern to them. A feature of the classical Chinese language was that words could flexibly behave as nouns or verbs (or both, depending on the context). The early Chinese realised that words were not just descriptive, they were prescriptive as well. By saying, "table," not only am I describing to you a reality, but I am also telling you that you should conduct yourself in ways appropriate towards a "table." Words have such power to instruct people, what mattered most was the result, the practical consequences. If telling someone "X" guides that person to act in a way that achieves harmony and maintains/restores social order, then it is admissible to use such words, for those words are part of *The Way* of achieving social order.

However, in order to accurately understand the precise meaning of those words, as intended by the speaker/writer, the context is essential to provide the necessary background for the right interpretation. Unlike the Western tradition of "abstracting away" the concrete specifics (the context) in order to arrive at principles, the Chinese abhorred such abstractions. Context was all important. It gives meaning not only to words, but also to actions. Thus everything must be understood in light of its context. Even the observer is part of the context. This underlies Chinese arts and medicine. The artist exists in the context of his environment, and performs based on a certain context (pre-existing mood, setting, festivity, etc.) to observers who themselves may perceive things differently because they come from a different context. The traditional Chinese physician diagnoses the patient in the context of his life, diet, and environment.

Because context is so essential, early Chinese thinkers like Confucius and Laozi, did not provide any moral principles for action. It was simply not possible, for abstract principles would make no sense to anyone who exists in a particular and practical context (e.g. what about mitigating factors?). Scholars describe Confucius as propounding an ethics without principles. People are to learn how to conduct themselves by imitating and learning from the best practices of a community, codified as ritual (礼 *li*, or social etiquette). We see this too in the *Laozi*.[9] People should strive to *wuwei* (act by non-deliberate effort), yet there is no universal principle to follow, except that only you will know when you should conduct yourself in a *wuwei* manner (and you will also know how it should be done). The moment when you know *is* precisely the

---

[7]    Jean-Paul Sartre, *No Exit* (1943)
[8]    Many others like Martin Buber (*Ich und Du*), and Ryszard Kapuscinkski (*The Other*) have written extensively about this.
[9]    This text is also known as the *Daodejing*.

5

time where *wuwei* is required.[10] The students of Confucius and Laozi must learn to internalise these concepts through their own contextual understanding and experience.

Contrary to the western tradition, perfection is not a goal for the Chinese. They accept uncertainty as a natural part of life. But they do strive for excellence in performance (moral and otherwise). Such excellence follows from constant practice. Because of the Chinese emphasis on processes, the Chinese seek excellence in action: if we are to answer the "How" question, we are to concern ourselves with being excellent at following The Way, of executing the plan, of restoring the necessary order. Yet, unlike the Western tradition where the abstract ideal of perfection lacks parameters to measure it by, the Chinese tradition does specify parameters for excellent action: such action is one that is spontaneous and executed artistically without effort.

This contextual way of perceiving the world also affects the way the Chinese perceive themselves. Because the Chinese tradition does not abstract things into universals, the self is always seen in the context of one's community, or at the very least in the context of one's family. While there is the ability to think of one's self and others as separate concepts, the distinction (and tension) is not as strong as compared to the West. This is reflected in the Chinese language. In Chinese, the words for addressing or referring to everybody is 大家 (*dajia*, literally: the great family). Regardless of whether the self is included or excluded, the "other" (using the Western term), is still regarded as a part of one's family. Similarly, the nation is referred to as 国家 (*guojia*, literally: the country-family). There is no "I" versus "nation", or "I" versus "them." Instead, the self is always conceived as a subset of a greater family, neither distinct nor opposed to it.


## 3      The Historical Differences between China and the West

China and the West have very different histories, as both developed independently from one another. Only in the last two centuries the two began to interact.[11] For this reason, both worlds are constrained into very different paths shaped by the unfolding of events unique to their own history. These paths have a huge impact on the ways China and the West think and how they handle their relationship with nations. As there are far too many significant events in history, we will only highlight a few that we think are critical to understanding the barrier and tension between the two cultures.

### *3.1     China's Constrained Path*
China has learnt many lessons from its history. Some of these lessons were so poignant that they have been etched deeply into Chinese thinking. Since the beginning of its civilisation, China has had to deal with the problem of scarce resources. Invading neighbours for the sake of solving the resource issue was not a viable option because

---

[10]  This may seem rather tautological and useless from a Western perspective. Yet, it is precisely statements like this that highlight the difference between Chinese and Western thinking. The Western mode of thinking does not know how to make sense or derive any kind of practical guidance from it, but the Chinese mode of thinking knows how to interpret statements like this in a practical and useful manner.

[11]  This is of course not entirely true. Marco Polo and many others are examples of previous interactions, but these interactions were of no serious consequence to the West or to China.

(1) China's neighbours were hostile and tried to invade into China; and (2) much of China's geographical surroundings are mountains and deserts.

> **"The motif of unification and peace recurs again and again in Chinese history, to the extent that it has become etched into Chinese consciousness that unification is essential for peace and stability, and that it is needed for the sake of overcoming the problems of resource scarcity."**

The problem of scarce resources resulted in a very important approach to survival, etched deeply into Chinese culture and thought: the importance of unity. Since there is nowhere to go, and since nobody has control over natural phenomena, the only way to resolve the problem of scarce resources is to work together. In fact, the first Chinese empire was formed when several tribes banded together to resolve the irrigation problems associated with living along the river. These were problems that required inter-tribal coordination to ensure that one tribe would fix a problem or avoid doing certain things in a way that might affect other tribes upstream or downstream. This theme of unification recurs throughout China's history, starting with the first Qin Emperor, who unified several warring states to form China with a single writing system, and a single standard of measurement. Unification thus brought peace after many centuries of war. This motif of unification and peace recurs again and again in Chinese history, to the extent that it has become etched into Chinese consciousness that unification is essential for peace and stability, and that it is needed for the sake of overcoming the problems of resource scarcity.

Moreover, resource scarcity compelled the Chinese to innovate and think of other ways and means to act without exhausting too much of their own resources. These ways and means may be referred to as a "flow" approach[12]. What made the adoption of the "flow" approach possible is the emphasis on processes in Chinese thinking. The Chinese recognise that there are patterns and cycles in the world (whether natural or human). Rather than to exhaust whatever resources they had, they learnt that they could study the patterns of cycles and find the appropriate time to ride on that cycle.[13]

However, in the last thousand years, time and again, China had been subjugated by foreign powers, such as Mongols, Manchurians and Japanese, and in the last two centuries by various Western powers. Yet, despite this subjugation, Chinese civilisation has persisted through the ages. China witnessed how foreign rulers, like the Mongols and Manchurians, were eventually assimilated into China and adopted its culture. This led Russell to the following insight:

> "The Chinese nation is the most patient in the world; it thinks of centuries as other nations think of decades. It is essentially indestructible, and can afford to wait."[14]

China has also experienced the humiliation of defeat and rule by a foreign power. Especially in light of the humiliations in the last two centuries, China does not wish to be enslaved by another foreign power ever again. However, this does not mean that China will expand and invade other nations, for China is constrained by the path of its

---

[12]  Tor Nørretranders, Comment made during the second workshop, (29-31 Oct)
[13]  This thinking features in Daoist thinking as well as in Sunzi, *The Art of the War*. It is also a dominant factor in family and village life. (See Lin Yutang, *My Country and My people*).
[14]  Bertrand Russell, *The Problem of China* (Project Gutenberg, 2004), Chapter 1

own historical development and the important lessons and failures in its own history. As mentioned earlier, the first concern is unification. Even if China was unified under a foreign ruler, though the people might be unhappy, unification would still bring about peace and harmony (and for that matter, history has shown time and again that foreign rulers would be assimilated into Chinese culture).

Secondly, China has learnt painfully in its history that invasion is never profitable or beneficial: China's geographical size and lack of resources make it vulnerable to attacks, so the army is only good for defence. Were it to mobilise its army for invasion, it would not have the resources to defend itself. Neither would China wish to expand its army for the sake of invading another country while simultaneously defending its own borders. For history has shown that whenever China builds up such a large army, disagreeing generals would have the military might to engage in a coup d'état. China is aware that it is constrained by its geography and history to pursue anything more than its own unification.

### 3.2    *The West and its Unconstrained Historical Expansion*

The Western world followed quite a different path in its history. It did not have the resource and geographical constraints that China had. With its power and the vast amount of land and resources available, people in the Western world could solve their resource needs simply by moving to other places rich in resources. Since this was the way by which Western civilisation expanded and developed over centuries, such thinking – of expanding/invading out into other lands to solve its resource problems – became deeply etched into the Western mind. This became what we may refer to as a "depot" mentality,[15] the idea being that there are simply depots of resources available that one can exhaust to fuel one's needs. When one depot is depleted, one can always move on to another for more.

For a large part of its recent history, the West expanded as invaders of land, colonizing people and grabbing their resources. They even grabbed resources from each other. For example, the British Empire was built by pirates,[16] who frequently raided the Spanish. And when Western states felt that there were insufficient resources in their part of the world, they invaded and colonised other parts of the world, claiming those resources as theirs.

Though we now live in a post-colonial era, these tendencies are still present in the Western world.[17] And since the Western world developed this way and established its economic and scientific strength, many in the West cannot see other possible routes for development. How will China do it, now that it is undergoing rapid expansion and development? The fear is that China will act in the same way the West has.

---

[15]   Tor Nørretranders, Comment made during the 2nd workshop, (29 - 31 Oct)

[16]   Andrew Sheng, Comment made during the 2nd workshop, (29 - 31 Oct)

[17]   One may argue that the freedom that Charlie Hebdo claims for itself to ridicule and insult others, is an exponent of the old colonial mentality in which the other (the natives, the pagans, the animists, or representatives of "other" religions like Mohammed of Rabi's) is seen as inferior and thus can be ridiculed and insulted ad libidem.

## 4 Enlarging the Problem through Reductionism

There are some who think that modern science is the key to navigate the barrier between China and the West. After all, science is about the detached and unbiased systematic study of natural phenomena in a clear and concise language. Even though this goes directly against the traditional abhorrence of abstractions that kept the Chinese with their feet on the ground, the idea is not without warrant, as there are many Chinese scientists and students studying science both in Western and Chinese universities. However, it would be a mistake to assume that the East-West barrier can be demolished through modern science. Likewise, it would be a mistake to think that the Chinese are engaged in science in the same way as Westerners. Bertrand Russell lamented "that the Chinese lacked only Western science to save themselves from being overly manipulated by foreign powers like Japan or America."[18]True enough, "Chinese leaders only promoted the development of Western science in order to defend themselves against 'foreign invaders.'"[19] The Chinese have largely focused on the practical applications of science, and hardly on science for the sake of science.

This, however, brings us to a more pressing concern. The scientific method that is based on a reductionist framework has been so successful that other ways to acquire knowledge have become underdeveloped, undervalued, or even ridiculed. This affects people in China as well as in the West. Regardless of how each culture thinks of science, an increasing number of people, of scientists and

> **"Perhaps the single greatest negative impact from reductionist thinking is that we have come to reduce and conflate reason and rationality as if they are one and the same. They are not. Reason and rationality are two different cognitive competencies."**

even social scientists have been brought up to think in terms of such a reductionist framework. These people have lost sight of the dynamic interactions between natural, social and artificial systems that shape our world and ourselves and enable us to find ways to deal with this world. This is something the Chinese have always known.

Perhaps the single greatest negative impact from reductionist thinking is that it has reduced and conflated reason and rationality as if they are one and the same. But they are not. Reason and rationality are two different cognitive competencies. Rationality is the ability to drill deeper, the ability to create ever more precise analytic distinctions, whereas reason is the ability to appreciate things in their entirety. Reason unites analytic precision with constellatory logic. By constellatory logic we refer to the ability to think and see how each component unfolds its full meaning only in the presence of others.[20] The pervasiveness of reductionist thinking has led many to forget that we have the competency to explore and think of whole systems in their full complexity. We forget that there are many phenomena in this world that are (non-linear or) complex, and that some things and meanings can only unfold themselves in the presence of other things. Those trapped in the reductionist mode of thinking cannot help but to perceive and structure the world in terms of linear causality: they are not aware that there are other ways of seeing, of structuring their perception.

---

[18] Theresa MacPhail, *The 'Problem' of Science in China*, p.28; Cf. Bertrand Russell, *The Problem of China,* Chapter 1

[19] Chen-Lu Tsou, "Science and scientists in China," *Science* 280 (1998): pp.528-529, cited in Theresa MacPhail, *The 'Problem' of Science in China*, p.45

[20] Albrecht von Müller, Comment made during the 2nd workshop.

This presents a problem not only to the study of phenomena, but it also strengthens the barrier between China and the West and adds to the tensions between the two. For complex cross-cultural problems that have no linear explanations or solutions, are studied and framed in isolation from other issues, as if they are linear problems. Not only does this blind us from the reality of the problem, but it also generates more misunderstanding between both sides.

## 5      Complexity Science and hope

Yet there is hope. A new field of scientific endeavour is gaining momentum and getting attention. That endeavour shifts the focus from parts and pieces to coherent wholes. The umbrella name for this new way of doing science is *complexity.*

This new field in science is relatively new (about 30 years old), and although firmly rooted in Western reductionist science, seems to converge with the thinking of the ancient Chinese world. Perhaps this should not be a surprise. Since ancient times, the Chinese have taken the uncertainty of their existence as a given and have been comfortable with the complexity of developing and maintaining harmony in their own world, such as their families and villages. A living example today is the traditional Chinese physician who is a master at diagnosing and treating a complex adaptive system – the human body.

*Complex Systems*
*There are two kinds of complex systems, but the one that is of interest to us here are complex adaptive systems, where the components (known also as agents) adapt and change their strategies every step of the way based on their interactions with other agents and the feedback they get about their activites and behavior from or other agents. Emergent phenomena occur when we aggregate not the agents themselves, but their behaviour as a whole.*

*The behavior of complex adaptive systems is almost impossible to predict as there is no fixed guiding principle, and the behavior of each agent is conditionally dependent on the behavior of other agents.*

This ability is not limited to the Chinese. Many people around the world are just as capable of understanding and handling complex systems. For example, a mother who has to raise and look after several kids (her husband too might be counted as one), while at the same time coping with her own career, accidents, unexpected happenings, and other matters. Practicality in everyday life is the key

**In the science, business and politics of the West, the prevalence of reductionist thinking, with its linear concept of causality, seems to have obscured the unique capabilities of handling complex problems in day to day life.**

to dealing with this, not abstract theories. This is featured very strongly in Chinese thinking, but it has been obscured in the West by the prevailing concept of linear causality.

So the development of complexity science offers hope for a common base from which we can look for ways to navigate the barrier between China and the West, but we are not there yet. The Chinese tradition has a rich content of understanding and managing complexity, to the extent that the Chinese have formalised a system by which they could impart from master to apprentice, ways of understanding and managing complex systems. Yet, they lack the richness of concepts or the vocabulary to discuss

complexity in a clear and scientific manner.[21] The Western tradition, on the other hand, with its rigourous scientific method, acquired the richness of concepts, and a vast vocabulary for describing

and analysing isolated phenomena within complex systems. Yet, that same scientific method, had led the West to overlook the richness of complex relations and systems in human processes and in the world, thus lacking the deep understanding of complexity that the Chinese have. As such, the West does not have the richness of content that the Chinese have. The West is concept-rich but content-poor; while China is content-rich but concept poor.[22]

We see in this an opportunity to develop a connection between China and the West using the frameworks offered by complexity science and Chinese philosophy. Each of these frameworks is strongly rooted in their respective cultures, yet the similarities and compatibilities are such that we think we can overcome the pessimism of cultural incommensurability. At least, we hope to offer both cultures some visions on how the barrier between China and West might be navigated. Ultimately (and if we are very successful in our exploration), we hope to provide the conceptual resources that will enable both China and West to develop a mutual understanding that is based on respect for each other's perspectives and cultural frameworks. We view this project as a key stepping stone that will help us in the grand scheme of navigating cultural differences.

## 6    Possible Areas to Explore

One possible area to explore would be whether the concepts articulated in complexity science do indeed cover the same (or different) territory as the contents expressed in Chinese philosophy. Following from this, it would also be worth exploring whether the concept/content would have a similar meaning if it were transplanted from one culture to the other.

Another possibility would be to research the key elements in the master-apprentice system that Chinese physicians (and other Chinese artists) use to train new students. What is it about the training that allows them to impart the art/skill of diagnosing, understanding, and treating such complex systems as human beings? Perhaps if we try to investigate this using the concepts and vocabulary in complexity science, we may find a way to mutually enrich both cultures by finding points of convergence throughout the process.

---

[21] This might be due to a strong Daoist influence that asserts that language obscures. The more you dwell into language, the more you obscure thinking. As such, the Chinese tradition does not have many names for these complex processes, and were they do, these names are very vague and imprecise.

[22] The image of content-rich and concept-poor versus concept-rich and content-poor, might also fit the problem of the fundamental difference between social sciences and the "hard sciences." In fact there may be some similarities between bridging the gap between those sciences and navigating the East-West barrier, that are worthwhile to explore.

Additionally, we could investigate how to educate future generations to think and handle issues of complexity. We think that children do have a sense of complexity but lack the concepts and space to express their impression of it. Could we find ways that will enable them to express their sense of complexity? Is there something in the master-apprentice system that we could learn and use to inculcate in children the sense and ability to understand and handle complex systems? If we can train them in this, their education in the reductionist framework can be complemented with their ability to think about complexity. In this way, the future generations will have this dual ability which they can use to their advantage, and have an array of conceptual tools useful in dealing with other cultures.


## 7      Concrete Steps Forward

There are a few possible ways to move this project forward. One way would be to mimic the Manhattan project: a small community of intelligent people from East and West, and from different disciplines, working together under a sense of urgency to explore what we have proposed above. This group should consist of a mixture of scientists, artists, people of practice, and philosophers. They should be intelligent and perceptive. Though the majority should be young and passionate, there should be a few who are older. Most important, we need to feed and grow this small community. We have a feeling that what we intend to do is not exactly new, that there were other groups before us who tried to embark on a similar project, but failed. Our sense is that these groups did not continue because they were not supported, thus making it hard to sustain their interest and commitment. We believe that such a project can succeed if it gets strong political support and funding as this is not something that can be achieved solely with academic support.

Another way (or a further step to the previous) would be to draft a 20-page report detailing test cases of how our explorations could help improve communications between China and the West. We could then give this report to five senior government officials from different countries, showing them how such an approach could be beneficial for their government and country. Once we have convinced them of how it could possibly work, we can engage them in further discussions and research in those areas.

Yet another possible project would be to create a museum of the future. Such a museum could be located anywhere in the world. Its exhibits are meant to display, in a transparent manner, certain assumptions that we hold, and, based on our current understanding of ourselves and the world, to extrapolate and forecast how things will develop in the future, and what we foresee to be critical junctures of (future) history. By inviting participants from both East and West, we can enable people from both cultures to clarify their own cultural assumptions and perspectives of the world, as they try to extrapolate and simulate how the future will be like. The exhibit may be in the form of displayed art, or even as a collection of video clips. This method of future forecasting is not meant to predict the future, rather, it is an exercise that helps us understand the present: our present outlooks, assumptions, and approaches to certain issues. The exhibits themselves are tools of dialogue and education for both exhibit-creators and

visitors alike to come to a mutual understanding of themselves and of people of other cultures. Based on the same theme, we could organise other events to appeal to various age groups, and people of different interests.[23]

Regardless of the final choice we make to bring this project to the next phase, it is important to bear in the mind the wise words of Rudyard Kipling, who said:

> *Oh, East is East, and West is West, and never the twain shall meet,*
> *Till Earth and Sky stand presently at God's great Judgment Seat;*
> *But there is neither East nor West, Border, nor Breed, nor Birth,*
> *When two strong men stand face to face, tho' they come from the ends of the earth!*[24]

Whenever we create the opportunities to bring together people from both cultures, that they may "stand face to face" and interact with each other, we have already began, slowly but surely, to remove the barriers between East and West.

**Bibliography**

Bertrand Russell, *The Problem of China* (Project Gutenberg, 2004), Chapter 1, Accessed Jan, 2015. http://www.gutenberg.org/files/13940/13940-h/13940-h.htm.

John Holland, *A Very Short Introduction to Complexity* (UK: Oxford University Press, 2014).

Rudyard Kipling, *The Ballad of East and West* (1889), in Stedman, Edmund Clarence, ed. *A Victorian Anthology*, 1837–1895. (Cambridge: Riverside Press, 1895).

Theresa MacPhail, "The 'Problem' of Science in China", *East Asia Science, Technology and Society: An International Journal* 3 (2009): pp.27-50.

Lin Yutang, *My Country and My People* (London: William Heinemann Ltd., 1936)

Lin Yutang, *The Importance of Living* (New York: Reynal and Hitchcock, 1937)

---

[23] Albrecht von Müller, Comment made during the second survey workshop, "Exploring the East-West Barrier" (29-31 Oct)

[24] Rudyard Kipling, *The Ballad of East and West.* It should be noted that the Ballad is about an English officer and an Afghan horsethief who become friends on the Khyber pass. It does not refer to China and the West at all.

## Participants at Exploratory Workshops

1$^{st}$ Workshop (1-3 Sep 2014)

- Douglass CARMICHAEL
- Max EVEREST-PHILLIPS
- Atsushi IRIKI
- Adrian KUAH
- Jonathan SIM
- Jan STAMAN
- Jan VASBINDER

2$^{nd}$ Workshop (29-31 Oct 2014)

- Li CHEN
- Georges HALPERN
- Tor NØRRETRANDERS
- Woody PRIEB
- Andrew SHENG
- Jonathan SIM
- Jan VASBINDER
- Albrecht VON MÜLLER
- Robin WANG
- W. Brian Arthur