

Nanyang Technological University

Para Limes

East of West, West of East Conference,

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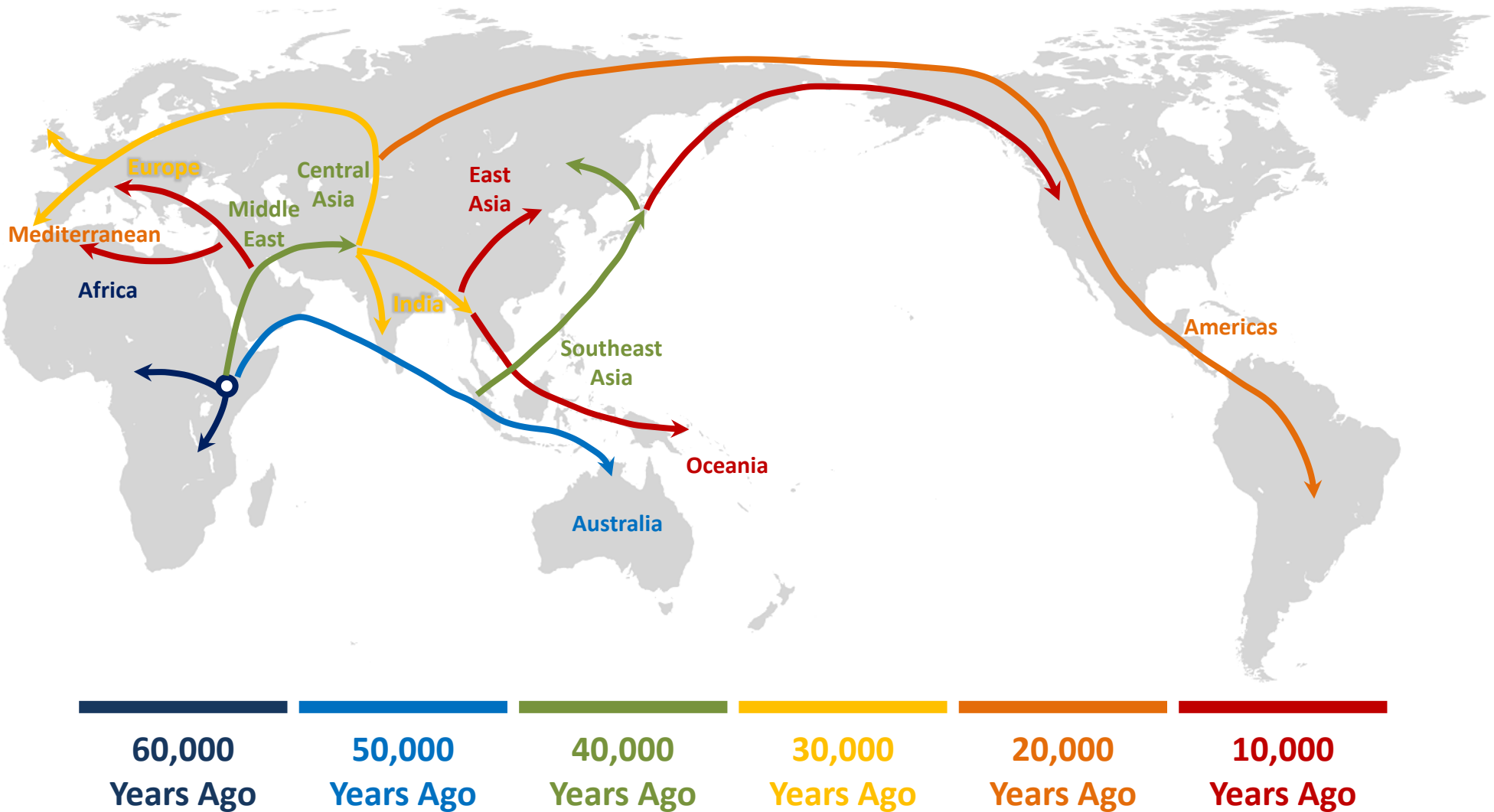
*Differences & Convergence in East-West Thinking*

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# Same Roots – Out of Africa 60K Years Ago



The background is a traditional Chinese ink wash painting. It depicts a mountainous landscape with a large, multi-tiered pavilion on the right. In the foreground, several figures in traditional Chinese clothing are engaged in various activities: some are seated at a table, others are standing and talking. The scene is framed by large, gnarled trees and misty mountains in the distance.

# Does Chinese Civilization Come From Ancient Egypt?

A new study has energized a century-long debate at  
the heart of China's national identity.

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BY RICARDO LEWIS

# Theory of Everything vs. Theory of Nothing

## From Hawkings to Tao

- *“We are trying to find a unified theory that will include quantum mechanics, gravity, and all the interactions of physics...it should in time be understandable in broad principles by everyone.”* – Stephen Hawkings, Theory of Everything, 2008
- *“A Dao that may be spoken is not the enduring Dao 道, 道, 非常道.”* Laozi, Daodejing, 6th century BC
- *Change is the only constant* – I Ching, 9th century BC

# Purpose of this Study

- Conflicts in 21st century are moving towards war between East and West
- Conflicts occur when there is no acceptance of mutual fate and shared values
- Even though conflicts arise from competition over scarce resources, with the quest for power and domination providing superior access to resources, in a crowded world, mutual development of scarce resources (One over-populated Earth) would require commonality of shared interests
- This study attempts to use complexity theory (multi-disciplinary approach) to understand why Chinese thinking has evolved over time and is converging as China absorbs Western science and technology.
- But there are still huge gaps in understanding due to gaps in evolution of Western social science

# Why There are Huge Gaps in East-West Communications

- *“The time has come for thoughtful Asian commentaries on Asia and China to balance the traditional pessimistic western commentaries on China and Asia”* – Kishore Mahbubani, NUS, 2016
- “China is not transparent (in English). It is quite transparent in Chinese – just visit the blogs to find out” (author)
- Hypothesis – Chinese and Asians can’t explain themselves in ways or language that Westerners understand (and vice-versa – don’t assume that core Chinese thinkers understand English)

# Section 1 **Geography of Thought**

*Why We Think Differently*

# East and West Thinks Differently: *Geography of Thought*

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## Differences

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|                                  |   |
|----------------------------------|---|
| <b>Science and Mathematics</b>   | Why do Asians excel at maths and science but produce less revolutionary science than Westerners?  |
| <b>Attention and Perception</b>  | Why are East Asians better at seeing relationships among events than Westerners?  |
| <b>Causal Inference</b>          | Why do Westerners overlook context on behaviour of objects or people, but Easterners are susceptible to “hindsight bias”?   |
| <b>Organization of Knowledge</b> | Why do Western infants learn nouns more rapidly than verbs, and Easterners vice versa? Why do Westerners rely on categories and East Asian group objects and events on how they inter-relate? |
| <b>Reasoning</b>                 | Why are Westerners more likely to apply formal logic when reasoning? Why are Easterners more willing to entertain apparently contradictory propositions?                                      |

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# Why the West Rules for Now: Axial Thought

– *Ian Morris, (2011) Profile Books*

- Geography affected social development and world-views
- **First Wave:** (c.300-600 BC) Confucius, Daoist, Buddhism, Jainism in East, Greek philosophy, Hebrew Bible in the West;
- **Second Wave:** (c.65 AD-500 AD) Rapid spread of Christianity and Buddhism
- Both were consequences of social development
- Between (300 AD-1100 AD) East pulled ahead of West
- Roman empire and Persian empire collapse (c.600 AD–) followed by late Axial wave rise of Islam

# Why the West Rules for Now

– Ian Morris, (2011) *Profile Books*

- **Geography** – Western competition in maritime exploration gained the huge natural resources of America; China and Japan went on isolation route after failure of Hideyoshi attempt to conquer China in 1592 (Qing succeeded in 1644)
- Qing Emperor Kangxi (1654-1722) c.1700 “Even though some of the Western methods are different from our own, any may even be an improvement, there is little about them that is new...**the principles of mathematics all derive from *the Book of Changes***” – p.479
- Asian isolation – in 1760, foreign trade was restricted to Guangzhou; Japan isolation period 1603-1867 until Meiji reformation and opening up

# Niall Ferguson – Great Divergence 2011

## *Six Killer Apps Why West Ahead of Rest*

- In 1500, 10 countries that formed the Western empire comprised 5% of world land surface, 16% of population and maybe 20% of its income. By 1913, these 10 countries, plus the US, controlled 58% of world's territory, about same percentage of population and nearly three quarters share of global economic output.
  1. Competition
  2. Scientific Revolution
  3. Property Rights
  4. Modern Medicine
  5. Consumer Society
  6. Work Ethic
- Great Divergence was not about geography or national character

# Climate Change and History

– *Geoffrey Parker, (2013) Global Crisis, War, Climate Change & Catastrophe in 17th century*

- Mini-Ice Age (1630-1690)
- Thirty Years War in Europe (1618-1648)
- China revolution and invasion (1644 Manchu)
- India drought and Mughal civil war (1630-1662)
- Competition in Europe ended up with maritime and colonial expansion, which drove scientific and technological Industrial Revolution
- Middle East, India and China came under foreign domination and turned inward – **the Great Divergence**

# Clash of Civilizations

– *Huntington, (1996) and others*

- *“Cultural and civilizational diversity challenges the Western and particularly American belief in the universal relevance of Western culture. ..In the emerging world of ethnic conflict and civilizational clash, Western belief in the universality of Western culture suffers three problems: it is false; it is immoral, and it is dangerous.” – Huntington, p.310*
- *“American policymakers would not tolerate the emergence of a new peer competitor (p.368)... “there will be a serious chance of war between China and the United States (p.394) – John Mearsheimer, Tragedy of Great Power Politics”, (2014 edition)*
- **War with China: Thinking through the Unthinkable** (Rand, 2016)  
...war would damage Chinese GDP by 25-35% in a year-long war, perhaps 5-10% for US

# Strategic Worldview Leads to Different Solutions and Outcomes – *US Views*

- *“Americans think that every problem has a solution. Chinese think that every solution creates a new problem”* – Henry Kissinger (2014)
- *“One of the things that fascinated me about the Chinese is whenever I would have a conversation with them about international standards or international rules of behavior, they would inevitably point out that those rules were made when they were absent from the world stage.”* – Martin Dempsey (Former US Chairman Joint Chiefs of Staff, Foreign Affairs), Oct. 2016, p.2

# Caricatures of Thinking – Western Reductionism,

In search of universal concepts (principles) that are context free

- Western scientific approach tends to be linear (like from a to z or in time line) and reductionist, analytically breaking down a whole into manageable parts – aiming for perfection and precision that is replicable and evidential. Process is rigorous, but often ignore context, systemic whole and its dynamic interactions
- Example: First Best solution – but for Whom is this first best?
- Rule of Law – but who rules, what happens if rule is gamed (as in Wall Street) and context changes (by technology, crises)?

# 70% of Psychology Studies are Based on WEIRD

**Samples** – Henrich, Heine and Norenzayan, Behavioral and Brain Sciences (2010)

- Psychology journals from 2003-2007 showed that 68% of persons tested from US, 96% from Western industrial countries
- 96% of psychological samples come from countries with 12% of world population
- Research findings based on Western, Educated, Industrialized, Rich and Democratic samples are “universal”
- Comparative studies show:
  - Visual perception show substantial variation across populations
  - American subjects test at extreme ends of distribution show significant differences from all other populations



# Western Blindspots in Radical Uncertainty

- “As far as the laws of mathematics refer to reality, they are not certain; and as far as they are certain, they do not refer to reality” – Albert Einstein
- “The conventional wisdom of economists about how governments and central banks should stabilize the economy gives insufficient weight to the importance of radical uncertainty in generating an occasional large disequilibrium” – Mervyn King, *The End of Alchemy*, 2016

# Eastern Thinking – Uncertainty and Imprecision

- Eastern approach is holistic, contextual, mystical and reflexive, subject to different interpretations and contradictions/hypocrisy, but recognizes fundamental interaction and contradiction between determinism and self-order that unfolds over time
- Accepts radical uncertainty and often self-order (Tao, Dharma, Wuwei)
- Teaches complexity through stories (e.g. Romance of Three Kingdoms, Ramayana, Mahabharata that carry meta-lessons in morality and social action)
- Veers between fatalism and authoritarian will to change the system. Pushes psychology, self-awareness and insights, and relationship with nature

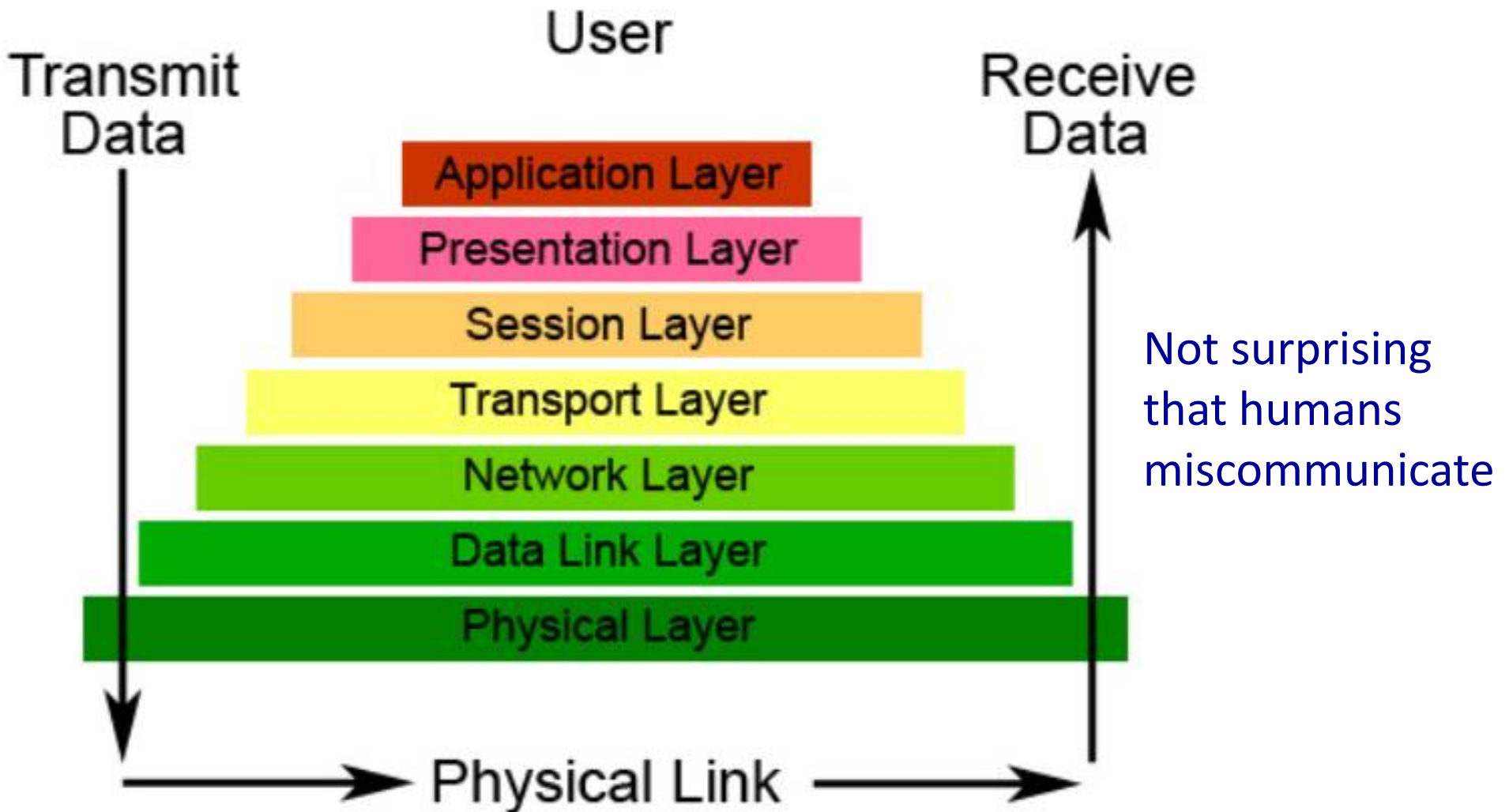
# Differences between Western and Chinese Medicine – *Ted Kaptchuk, (2000) “Web not the Weaver”*

- Biomedicine (Western medicine) is primarily concerned with isolable disease categories or agents of disease, which it zeroes in on, isolates, and tries to change, control, or destroy. Starts with symptom, then searches for the underlying mechanism – a precise cause for a specific disease (p.3)
- Chinese physician directs attention to the complete physiological and psychological individual. All relevant information, including symptoms is gathered together and woven together to form a “pattern of disharmony” (p.4)

# Language Imprecisions and Fuzzy-wuzziness

- Chinese language, being ideograms and tonal, has to be understood in context and words are subject to different interpretations
- Hence, those searching for perfect or ideal translations of Daodejing (Dao Classic) will be disappointed, because it is subject to multiple interpretations
- Chinese governance resorts to maxims [which foreigners consider propaganda] to mobilize common understanding. E.g. Black Cat, White Cat Pragmatism and Crossing the River by Feeling the Stones (Progress through Experimentation)
- Sharp contrast to Western theory that has simple model of moving to markets through clear property rights that are inalienable
- Fuzzy systems with loose logic allows flexibility in adjustment and adaptability
- But today, fuzzy logic chips enable the reading of different standards and high tolerance for error and interpretation

# Machine to Machine Communication has 7 Layers of Open System Interconnections (OSI)



## Section 2 Chinese Analytical Approach

*What are the Differences*

# Comparative Analytical Advantages:

*Zhu Hejun 祝和军 — Learning and Using Chinese Philosophy Classics,  
读国学, 用国学*

| <b>Sphere of Thinking</b> | <b>Chinese Dialectical Thinking</b>   | <b>Western Logical Cause and Effect</b>  |
|---------------------------|---|--|
| <b>Context</b>            | Continental, limited by geography and resources   | Maritime, boundless resources and expansionary   |
| <b>Worldview</b>          | Collectivist, acceptance of authority, holistic and multidimensional view                   | Individualist, democratic, sanctity of individual property rights  |
| <b>On self</b>            | Self aware – seek truth through inward enlightenment (subjective)                           | Seek outward knowledge and looking for external reasons, but gradually becoming more self-conscious – more open to boundary-less enquiry |
| <b>On Nature</b>          | Acceptance of uncertainty, imperfection and therefore borders on mysticism and superstition | Seek universal theory of everything through science and technology – open to theoretical perfection                                      |
| <b>On Society</b>         | Complex relationships aids strategic wisdom and insights                                    | Logical modeling   |

# China's Swerve Since Qin (221 BC)

## From Yi (Changes) to Daoism/Confucianism to Communism

- There is fundamental misreading of Chinese worldview that it is largely Confucian (651-479 BC) — Confucian Swerve was a historical turn that has yet to resolve itself
- China's First Axial Wave (600 – 200 BC) was based fundamentally on Zhou Yi (Zhou Book of Changes), c.900 BC, which the West considers a divination text, but is the fount of Chinese systemic worldview that encompasses philosophy, mathematics, politics, music, architecture, language, medicine and moral values
- Zhou dynasty (1056-256 BC) succeeded Shang (c.1600-1046 BC), which was feudalistic, superstitious and cruel. Zhou legitimized their rebellion through “Mandate of Heaven” 天命. I Ching 易经 traces its routes to Zhou Dynasty compilation of methodology of Fu Xi 伏羲 (c.2,600 BC)
- Between 600 BC to 220 BC, especially Warring States Period (475-221 BC), the flowering of Chinese intellectual tradition [百家争鸣] led to a SWERVE where eventually Confucianism won, after the collapse of the Qin Dynasty and the rise of the Han Dynasty (221 BC-201 AD)



# Zhouyi's Dialectical Methodology:

– *Yi Zhongtian 易中天: 中国智慧 Chinese Wisdom 2011*

- Yi 易 or change has three meanings
  1. Simplify (简易)
  2. Change (变易)
  3. No change (不易)
- Change process is also a method or way:
  - Go to fundamentals, control the principles and levers and create system or systemic change
  - *This thinking means that Chinese policymakers or decision-makers recognize uncertainty and seek to change or adapt through realistic pragmatism and continuous experimentation*

# Dialectics of Dynamic Change and Radical Uncertainty

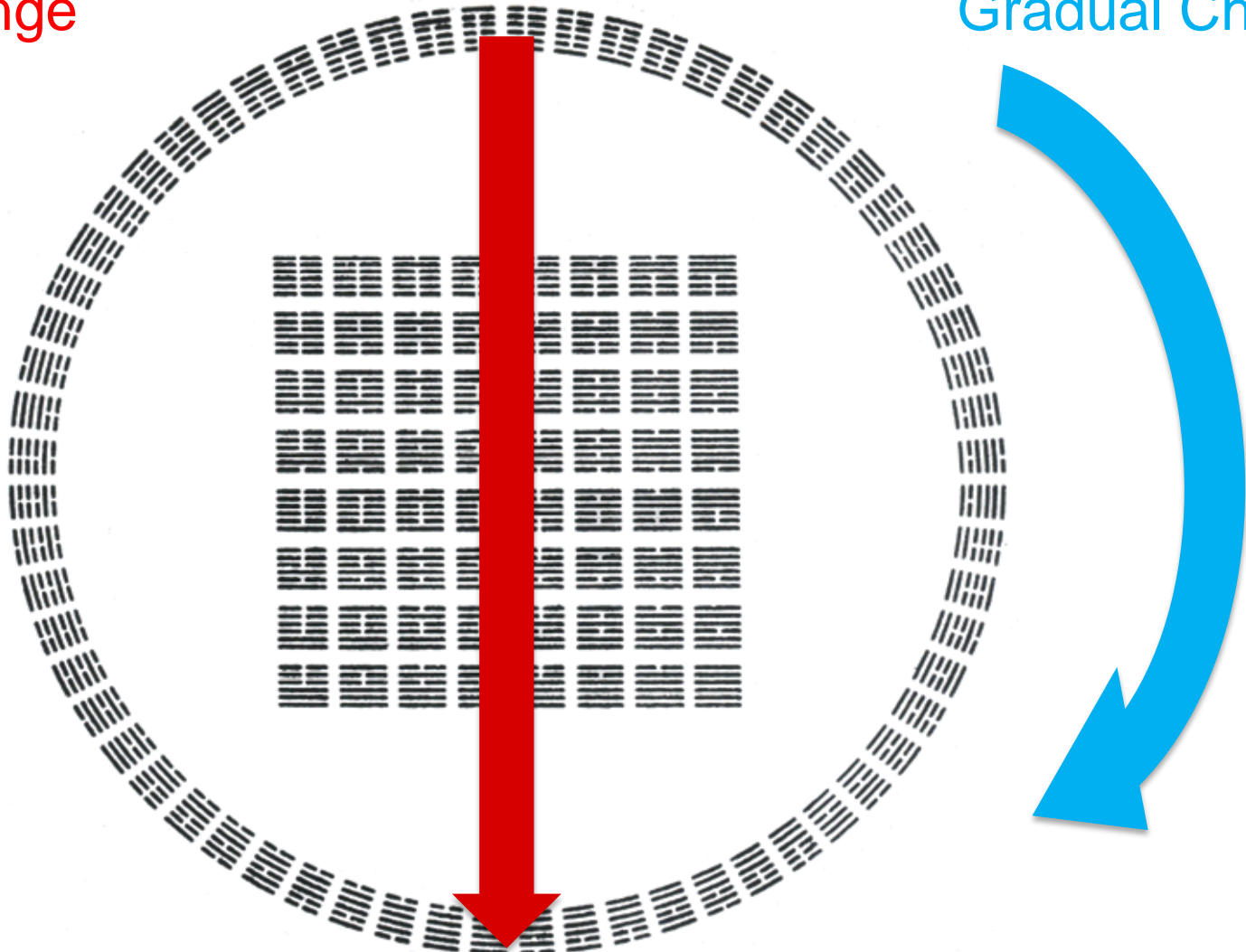
- Book of Changes sees the universe as a progression of contradicting dualities (Ying-Yang), a series of on-off, yes-no possibilities, and man-nature interaction that evolves continual change and dynamic complexity. Leibnitz Binary Mathematics 0/1 basis of computerization of information.
- For example: Man and nature are one (天人合一)
- Change starts with one, one combination between two opposites creates a third (一生二，二生三，三生万物) and the interaction between three creates multiple complexities (the world) – **From Simplicity to Complexity**
- Zhouyi's 64 hexagrams enable over 250,000 permutations and combinations of possible change, including radical change from one to exact opposite, as well as gradual shifts

# Zhouyi 64 Hexagram is not just Divination

Tool – Introduces Radical Uncertainty and Change

Radical Change

Gradual Change



# Determinism 有为 vs. Self Order 无为

– Jullien, (2004) *Treatise on Efficacy: Between Chinese and Western Thinking*

- Jullien identified that there is a Chinese way to achieve greater efficacy – Wuwei, which is to allow a system evolution to unfold (dao)
- In Chinese thinking, there is a continuous interaction between determinism and self-order, which creates something new
- Robin Wang's example of wuwei – surfing and allowing the wave to push the surfer in natural balance highlights that delicate balance. The surfer must find the right time and touch to position in right place in wave – that takes determinism, but once achieved – Dao – the movement is perfect, until disrupted by another unexpected wave!
- Reality is always unfolding between perception and way we perceive reality
- Jazz and its improvisation is a good analogy of the process of unfolding creativity through interaction, between players and audience

# First Chinese Axial Wave 百家争鸣

- In the first wave, different philosophies struggled for supremacy, leading eventually to Legalism under Qin that unified the country in 221 BC
- In prior 400 years, huge struggle between Daoism 道家, Moism 墨家, Militarist 兵家, Confucianism 儒家, Legalists 法家, Ying-Yangism 阴阳学家, Realism 名家, etc.
- Legalist Synthesis of Daoism, Realism and Militarism by Han Feizi 韩非子 prevailed under Qin, but its ruthless application was rejected by Chinese society
- Under Han Dynasty (221 BC-220 AD), Dong Zhongshu 董仲舒 (179-104 BC) integrated Confucianism with Legalist governance practices, so that officials practiced inward Legalism, but outwardly Confucian 外儒内法
- Since then, tension between Centralization and Decentralization/fragmentation major theme in Chinese history

# Chinese Imports of External Influence to Modern Times

1. *Tang Dynasty – Import of Buddhism* and globalization through Silk Road trade – improved self-awareness and internalized into Chinese culture
2. *17th century Qing rejection of Western technology* and closing of markets was “colonial” mentality – openness to technology would have eroded Manchu control over Han population – Qian Mu 钱穆, *Traditional Government in Imperial China: A Critical Analysis* (1982)
3. *20th century Communism and Constitutionalism* – Imported Marxist Dialectics and learnt party controls over military and bureaucracy – institutional improvement over old dynastic model. Four Modernization in agriculture, industry, defence and science and technology

# Challenges to Modern Chinese Thinking

- Adoption of Western capitalism has worsened inequality, deteriorated environment, imported consumerism, waste, plus corruption. These create conditions for social unrest
- Rush for GDP has meant loss of personal integrity, family values, aging demographics, rapid urbanization, incomplete rule of law, all created “values vacuity”
- Revival of Cold War tensions – Pivot to Pacific - and deterioration of global trade and growth environment means that nationalism is seen as “social cohesion” for common fate (to meet external threats)
- Confucian Ethics not sufficient in situation where value systems that must be more attuned to global and technology-based aspirations – environmentally conscious, globally concerned and practice of social equality in all aspects of society
- Such philosophy must be more “civilizational” and “live harmoniously with rest of world”, rather than seen as threatening

# Section 3 **Melding East and West**

*Why We Need to Converge*



# Common Grounds in East-West Dialogue

- Over 1 billion Chinese, Indian and Asian Y-generation absorbing science and technology, including foreign language and melding these into their own culture, creating “bridges” and “memes” for hybrid innovation
- Shared objectives in democracy, rule of law, social stability, equality and environmental sustainability (although differences in interpretation of speed and depth of implementation)
- Fundamental disagreement on role of state, but both ignored the conservatism and efficiency/threats of growing bureaucracies – military industrial complexes that are reviving under New Cold War
- Western physics, medicine, environmental science, biology etc. converging into complexity and non-linear thinking that looks at system change and emergent properties and interactions
- Insufficient thinking on both sides on institutional evolution and how institutions (subsystems) affect whole systems

# Areas of Deficiencies in Both Approaches

- Western economic theory pushes growth, democracy, human rights, but ignored growing social inequality, climate change and sustainability issues, including complexities of institution-building in development
- Chinese pragmatic approach has achieved fast growth, but also lacks theoretical/value based framework on how to achieve social stability, address social imbalances (income, wealth, regional) and environmental sustainability
- Insufficient attention to complexity and self-interest of massive bureaucracies and difficulty of entrenching rule of law in institutions
- Competition for resources inevitably lead to conflict not just in ideas, but in territorial and power terms

# Experimentalist Governance to Overcome East-West Barriers?

- *Global challenges, Chinese challenges:* Environment, demographics, ideology, macroeconomic policy externality
- *Accommodation of diversity:* Adapting general goals to diverse local contexts, rather than imposing one-size-fits-all solution
- *Recursive learning:* Coordinating collective learning from local experimentation with disciplined evaluation of alternative approaches to achieving common goals
- *Feedback and revision processes:* Revising regularly both the goals and means in response to implementation experience

# Areas of Innovation and Breakthrough

- East and West had different “Swerves” from different history, culture, institutions and language; including speed of technology evolution/absorption
- Cycles of integration (melding) or separation are continually unfolding. Modern game theory can paint different scenarios or make linear projections, but we need new modes of thinking from both East and West that “binds”, rather than breaks
- What is becoming common is the emergence of systems thinking – how to think about the unfolding properties and interactions of the system as a whole from its parts
- We need commonalities in “language” and “deep code” to enable us to bridge the gaps and misunderstandings between different cultures

# Areas of Research for Commonalities between East and West – Common Fate

- Complexity methodology – Silo vs. Systems thinking
- Social Inequalities
- Climate Change
- Technology in the service of above
- Finance in service of real sector, instead of financialization
- Collective wisdom – Wiki-wisdom/Wiki-action
- Adaptive and Collaborative Bureaucracies

# Re-building Trust and Ethics in Post-crisis World

- *“The golden rule first articulated in Asia still holds sway around the world, and it is not “He who has the gold rules” but rather “Treat others as you would be treated.” – Cory Aquino (2004)*
- Contradiction – The current Capitalist and Socialist Value Systems are empty of values that light up the individual within society. Following ethical behaviour in world of unethical markets does not pay, but should be rewarded.

Thank you  
Comments welcome

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