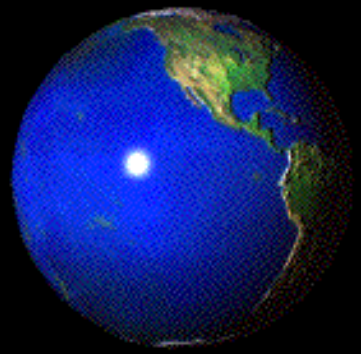


Jason Jixuan Hu, Ph.D.
Independent Researcher
Wintop Consulting Group
Phoenix, AZ, USA
jjh@wintopgroup.com

FOUR QUESTION MARKS TO BE DISCUSSED: SCIENCE? CYBERNETICS? FIRST ORDER? SECOND ORDER?

- FOR IASCYS CONFERENCE, OCT.2015, CHENGDU, CHINA

☺ ☺ ☺ Honesty Test! ☺ ☺ ☺

After listening to Dr. Műller's highly advanced lecture, please raise your hands if you understand:

- 80% or more
- 60%-80%
- 40%-60%
- 20%-40%
- Less than 20%

SCIENCE?

A small sample of important scientists

Top row: Merit-Ptah (2700 BC), Aristotle (384-322BC), Archimedes (287-212 BC), Ibn al-Haytham (965-1040), Isaac Newton (1642-1726), Antonie van Leeuwenhoek (1632-1723), Johannes Kepler (1571-1630), Galileo Galilei (1564-1642), Leonardo da Vinci (1452-1519);

Second row: Carl Linnaeus (1707-1778), James Hutton (1726-1797), Antoine Lavoisier(1743-1794), John Dalton(1766-1844), Robert Brown (1773-1858), Michael Faraday (1791-1861), Charles Darwin(1809-1882), Ada Lovelace (1815-1852), Gregor Mendel (1822-1884);

Third row: Louis Pasteur (1822-1895), Lord Kelvin (1824-1907), James Clerk Maxwell (1831-1879), Nikola Tesla (1856-1943), Ellen Swallow Richards (1842-1911), Max Planck (1858-1947), Ernest Rutherford (1871-1937),Marie Curie (1867-1934), Albert Einstein (1879-1955);

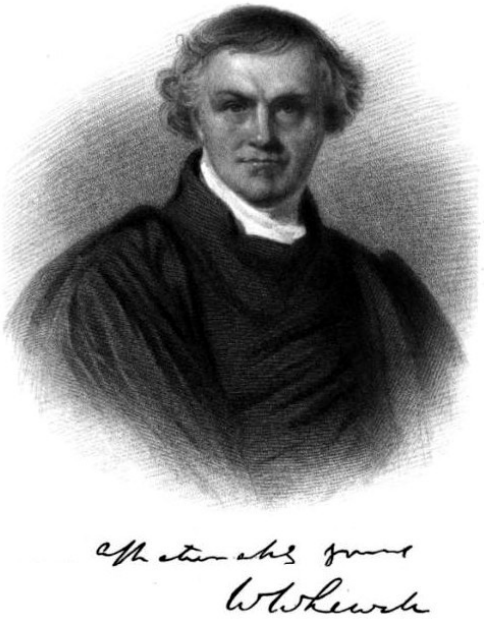
Fourth row: Max Born(1882-1970), Niels Bohr (1885-1962), Erwin Schrödinger (1887-1961), Linus Pauling (1901-1994),Enrico Fermi (1901-1954), Werner Heisenberg (1901-1976), Paul Dirac (1902-1984), Grace Hopper (1906-1992), Alan Turing (1912-1954);

Bottom row: Hedy Lamarr (1914-2000), Richard Feynman (1918-1988), Rosalind Franklin (1920-1958), E. O. Wilson (1929-), Carl Sagan (1934-01996), Jane Goodall (1934-), Richard Dawkins (1941-), Stephen Hawking (1942-), and Neil deGrasse Tyson (1958-)

Hypothesis
- Socrates (469-399BC), written by Plato (423-347BC)

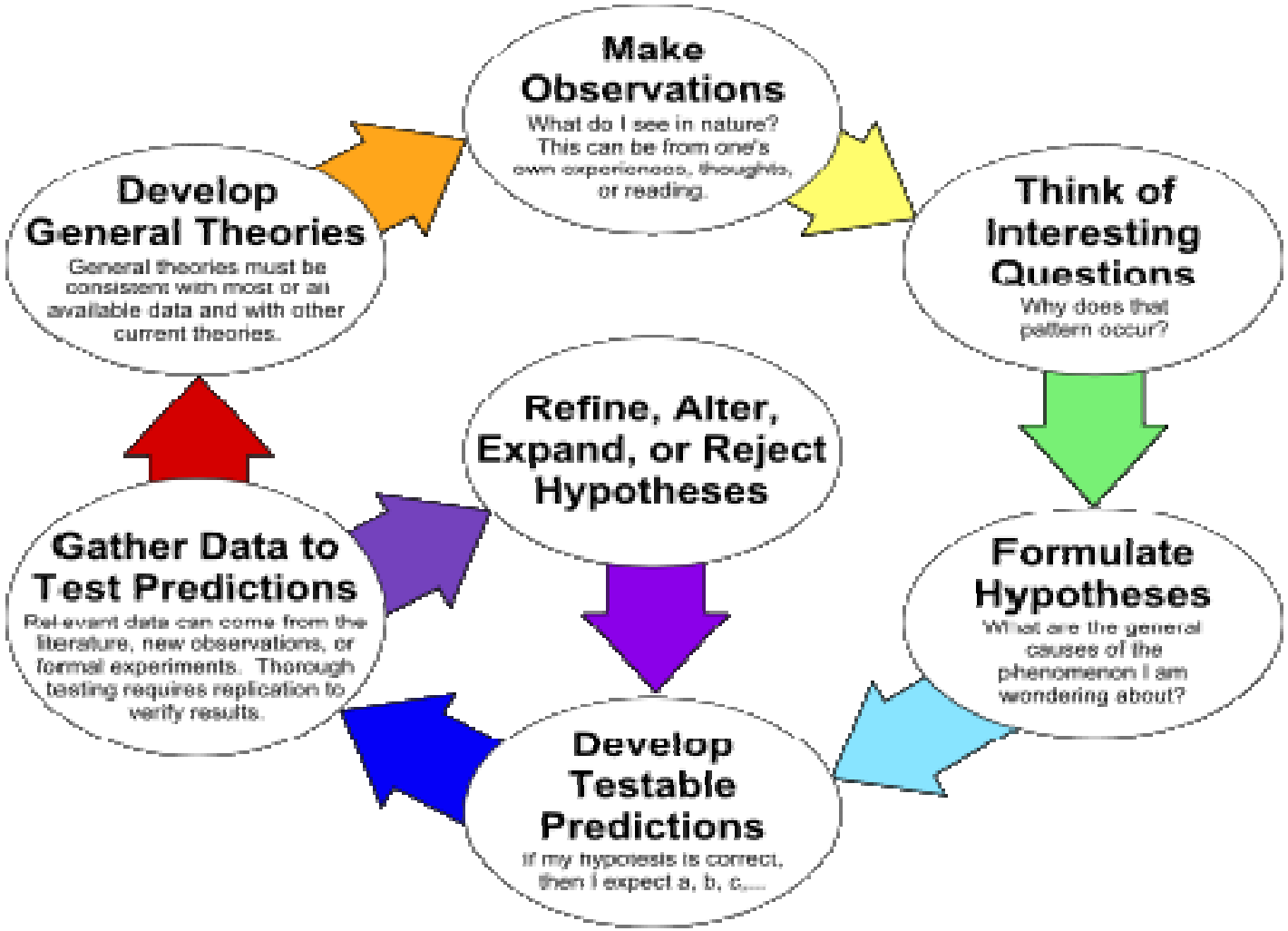
Empirical data and reproducibility
- Ibn al-Haytham (Alhazen) 965-1039

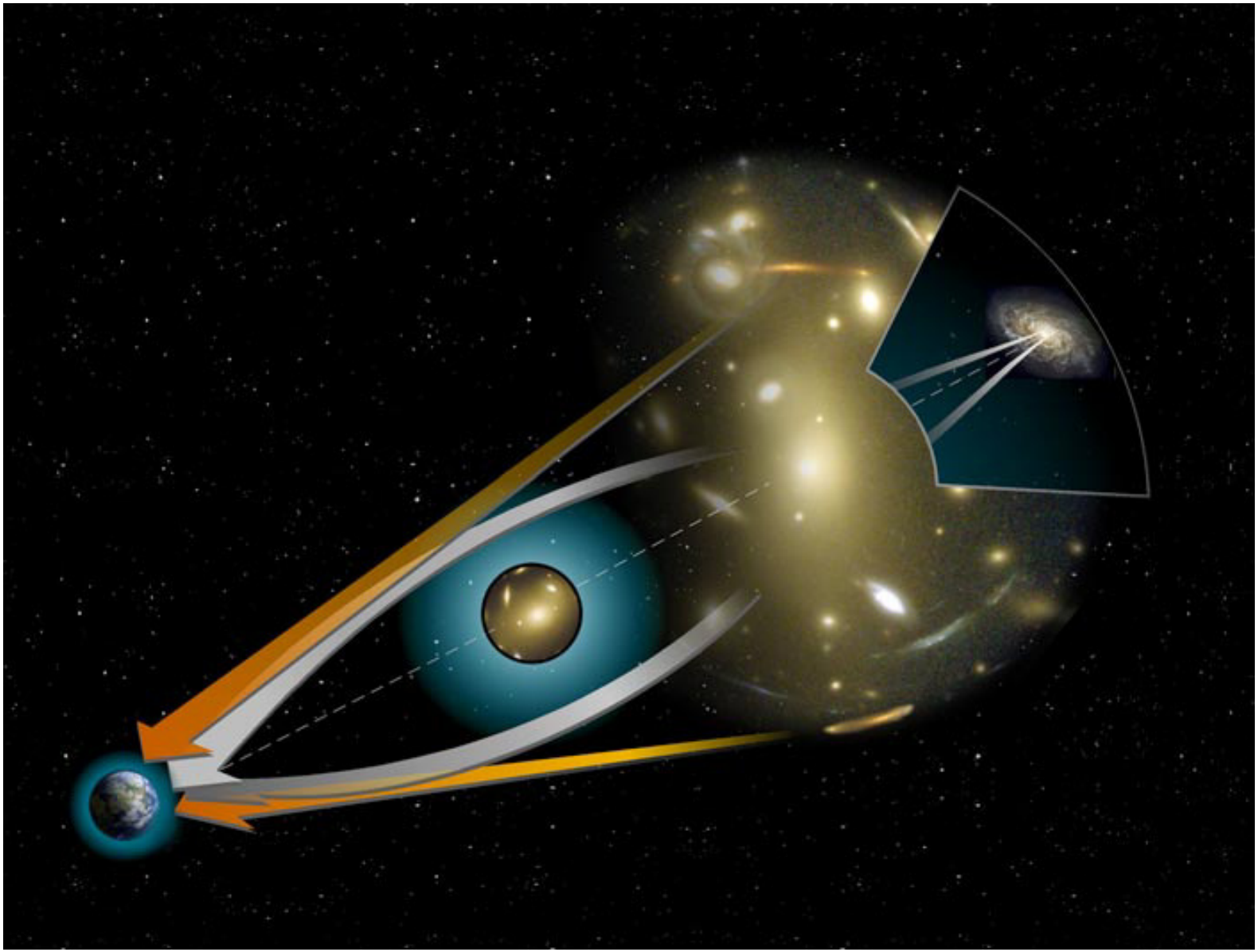
Empiricism and “father” of scientific method
- Francis Bacon (1561-1626)



Coined the word “scientist”
-William Whelwell 1834

The Scientific Method as an Ongoing Process





Science: To Identify A Hypothetical Cause-Effect Relationship

- $F=ma$
- $E=mc^2$
- … …
- $Y=f(X)$
- $A \rightarrow B$

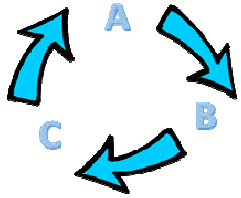
CYBERNETICS?

American Society for Cybernetics

- Famous Western Cybernetics:
- http://www.asc-cybernetics.org/foundations/cyberneticians.htm
- Current Activie Cybernetics:
- http://www.asc-cybernetics.org/links/cyberneticians.htm
- History:
- http://www.asc-cybernetics.org/foundations/timeline.htm

Cybernetics: To Identify Hypothetical Circular Cause-Effect Relationship

- A→ B → C →A
- A →B →A
- A →A



SECOND ORDER CYBERNETICS?

(And Second-order System Science?)

The Key to Understand It is…

- What is "Key"?

The Key to Understand It is…

Now exercise:

What is "Tea"?

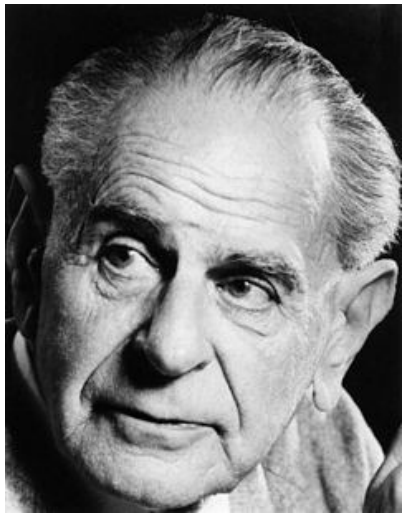
- In 5 minutes, each group draw an explanation of "tea" for an alien visitor who just arrived to earth

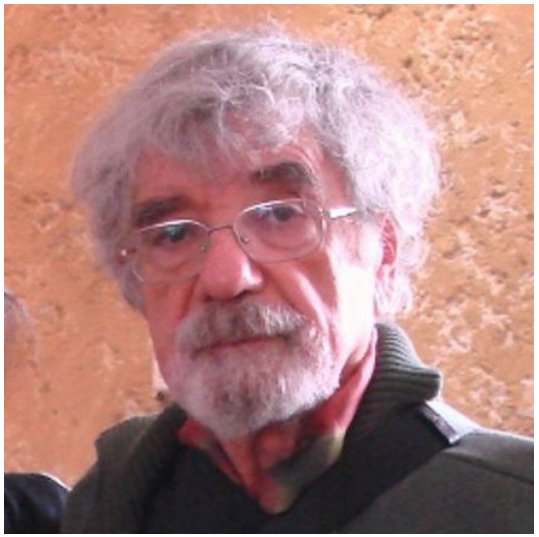
Because…

- You are an Observer!
- You are an Observer-Thinker-Actor!
- You are an OTA!

- Anyone is an OTA!
- Everyone is an OTA!
- We are all OTAs!

SECOND ORDER SCIENCE?



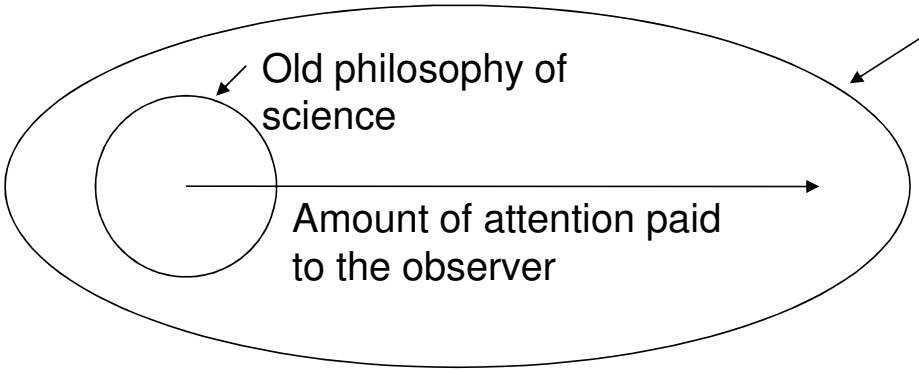


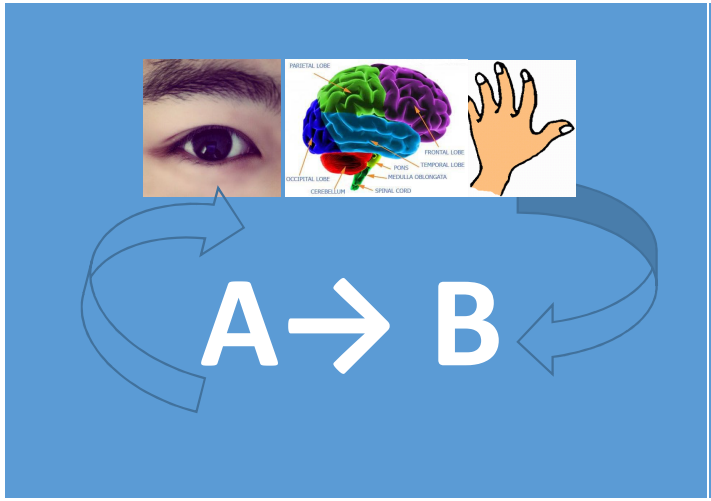
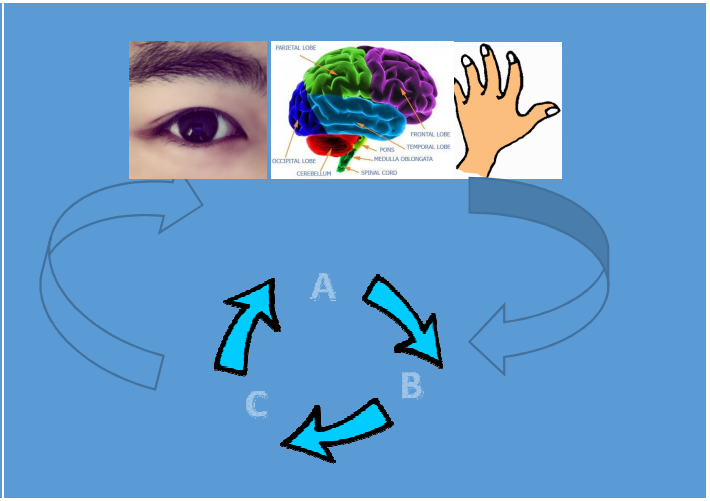
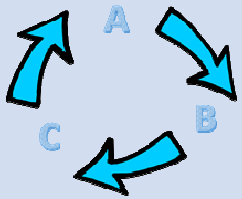
$$PS_1 \rightarrow TT_1 \rightarrow EE_1 \rightarrow PS_2.$$

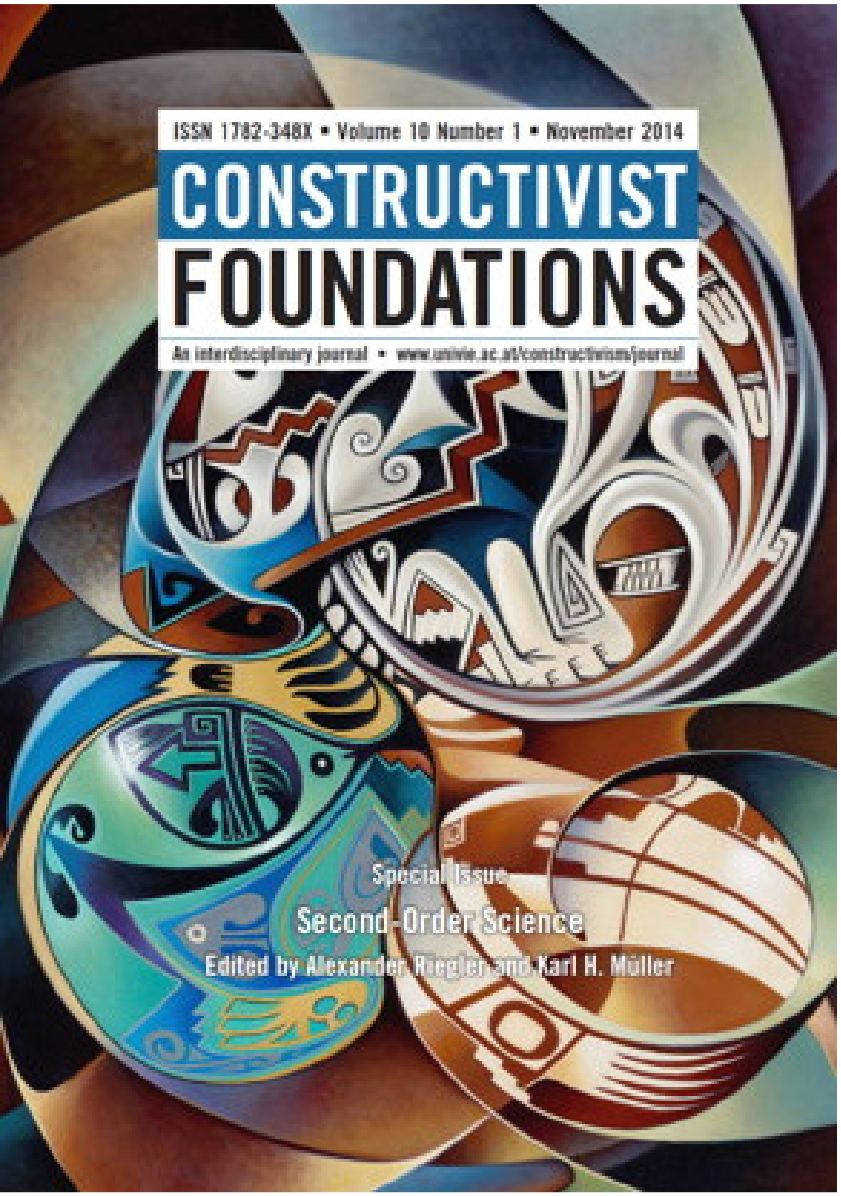
Importance of Falsification

O(P1)->H(E)->D(P2)->O(P2)

- Does not rely on "reality"
- Hypothesis ≠ "truth"



	Science	Cybernetics
2nd Order		
1st Order	A→ B	



Second Order Science (2014)

- 6 Leading Papers by 10 authors
- Followed by 30 commentary papers
- Followed by 6 author's response papers
- Plus an introduction by two editors

One of earlier thoughts of Science ver. Two

Aspects	Science 1.0	Science 2.0
Approach	observation	participation
Activity	description	prescription
Achievement	reliability (natural law)	agreement (consensus)
Purpose	forecast	creation
Criteria	accuracy/precision	usefulness

Criteria of scientific process

Popper and Maturana: The Science (1) of Observation and Predication

$$\mathrm{PS}_1 \rightarrow \mathrm{TT}_1 \rightarrow \mathrm{EE}_1 \rightarrow \mathrm{PS}_2.$$

$O(P_1) \rightarrow H(E) \rightarrow D(P_2) \rightarrow O(P_2)$

Hu and Umpleby: The Science (2) of Participation and Agreement Formation

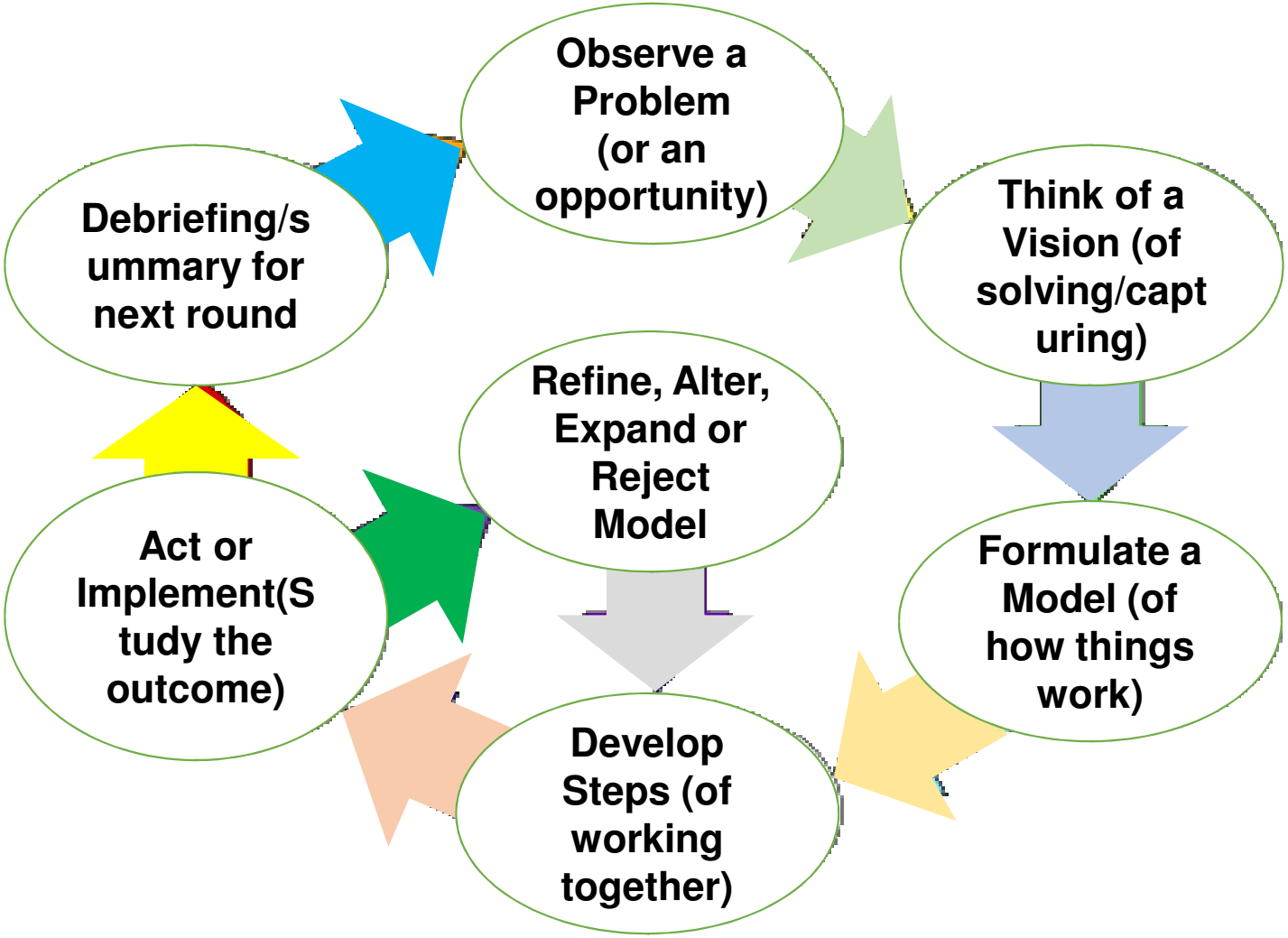
(a) Observation: Identify a problem or a goal.

(b) Hypothetical Modeling: Construct a network of interrelated variables, a hypothetical systematic model (vs. a hypothetical statement specifying a cause-effect relationship); use simulation to check the model if necessary.

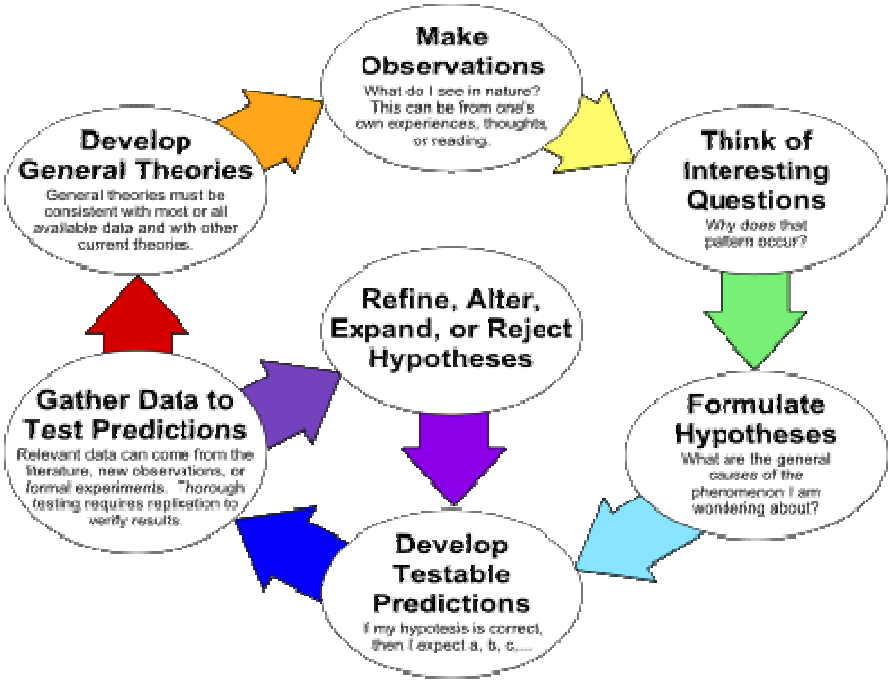
(c) Strategy/Policy Forming: Based on Hypothetical Modeling, derive a set of prescriptions or a method of intervention aimed at solving the problem or reaching the goal; apply them to the system.

(d) Observation: Does the result of applying a strategy or a policy produced in step (c) solve the problem identified in step (a)? Return to step (a).

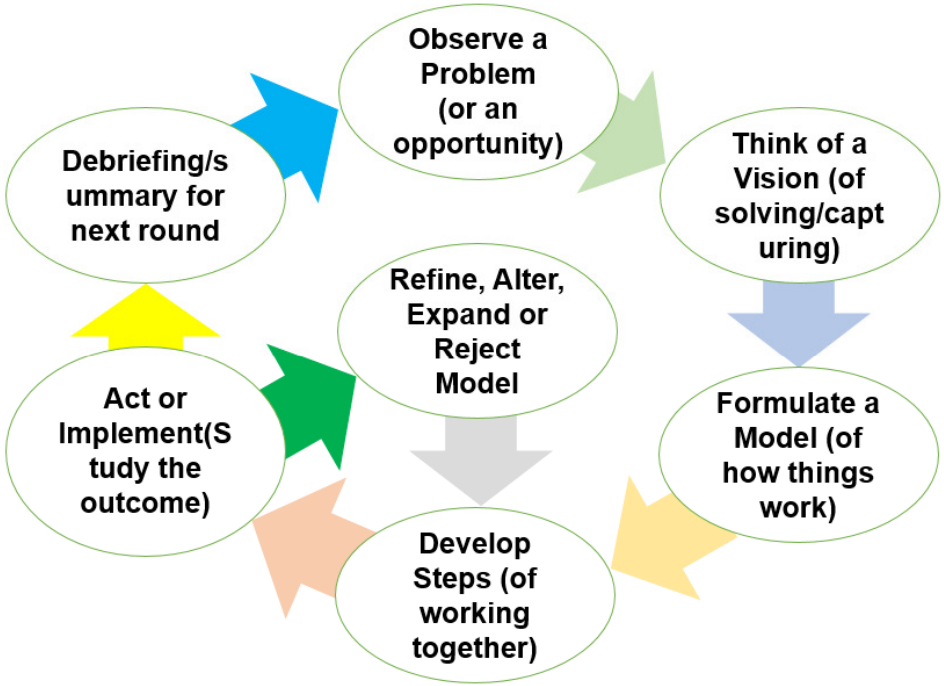
Science Two as an Ongoing Process



The Scientific Method as an Ongoing Process



Science Two as an Ongoing Process



Herry Kissinger on International Relations

"Reality" as "perceived to be true" from incomplete information or purely unknown

Conjectures are usually their only ground and they have to choose between the lesser of evils.

Statesmen have to act timely instead of inaction in many cases

"History knows no resting paces and no plateaus" – the only thing that does not change is change itself.

It's not a matter of what is true that counts but a matter of what is perceived to be true.
To be absolutely certain about something, one must know everything or nothing about it.
Each success only buys an admission ticket to a more difficult problem.

Geroge Soros on financial market

Market Reality as observed from incomplete information

Participant's Understanding of the market with bias

Participant's Action based on Biased understanding

Market Reaction/ Response to Actions (boom and burst)

Observers/participants are part of the system being observed/participated; Theories are a means to change the system described

Edward Deming in Management

Plan: Define the objective, questions and predictions. Plan to answer questions (who what where when). Plan data collections

Do: Carry out the plan, collect the data, begin analysis of data

Study: Complete the analysis of the data. Compare data to predictions. Summarize what was learned

Act: Plan the next cycle. Decide whether the change can be implemented

Observers/participants are part of the system being observed/participated; Theories are a means to change the system described

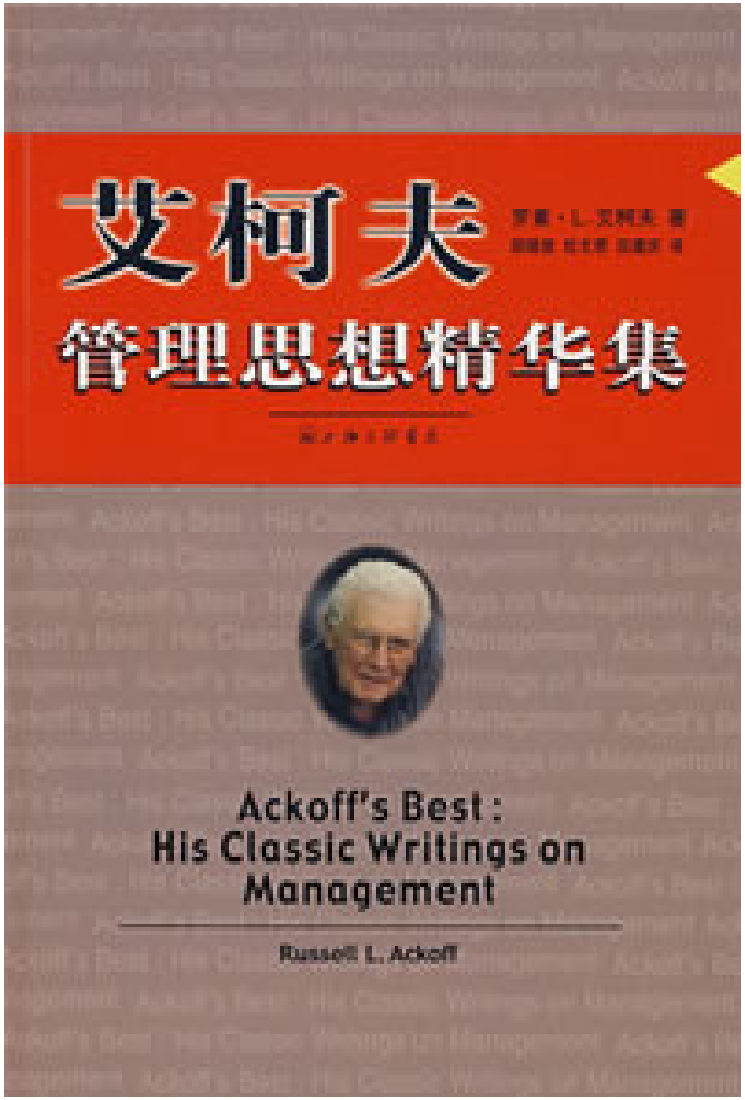
WINTOP Project 2002-2009

- It is a Systemtic Intervention aimed at changing the system, in the format of Corporate In-House Training to introduce participation technology to the management team.
- Mission – To reform Top-Down-Control organizational structure into Participatory leadership and management that build up collective wisdom within the company, one organization at a time.
- Prescription – The whole management team to learn participatory skills
- Product – Roundtable Leadership Training Program
  - Starting from ToP Program liscenced from Institute of Cultural Affairs (4 days).
  - Evolved to a 4-module “Green-Belt”/”Black-Belt” certificate program.
  - Developed into 14-day program, Implementation – 7 Modules of 2 days each, deliver to the whole management team of the client company in 6 months, one module per month with group assignments in between.

WINTOP Project 2002-2009 cont.

Content of 7 Modules

1. Igniting the Fire of Collective Wisdom
2. Basic Facilitation Skills
3. Improving Communication Effectiveness and Efficiency
4. Consensus Building Workshop Methods
5. Action Planning and Continues Quality Improvement
6. Strategic Planning Methods
7. Action Learning Projects/Converting to Learning Organization


艾柯夫
管理思想精华集
Ackoff's Best:
His Classic Writings on
Management
Russell L. Ackoff

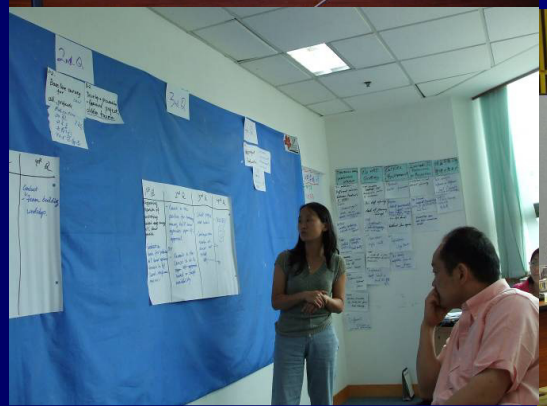
WINTOP Translated Facilitation Books

WINTOP Facilitation Training Textbooks In Chinese Language

Pilot Projects Accomplished By WINTOP





Comments Received About WINTOP Facilitation Skill Training Courses

- "WINTOP Facilitation Methods are so advanced and so practical at the same time! Even the best MBA program in China such as CEIBS (China Europe International Business School) cannot offer this course yet. Easy to learn and easy to use."
- "I am shocked after taking this training course for its immediate usefulness. The results are far beyond my expectation. First, it is practical, second, it is easy to master and use. The decisions from the group consensus can be implemented thoroughly in our work."
- "Creative and practical, this method builds up collective wisdom and reaches group consensus."
- "Your course helped our group decision process and increased our group productivity."
- "The facilitation methods encourage everyone in the group to contribute ideas and eventually reach consensus to get substantial meeting results. Everyone is able to express his/her own opinions and to participate in the decision making process in the meetings. "

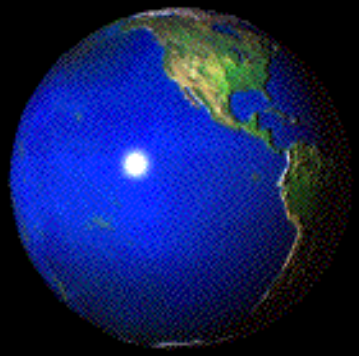
Some highlight of WINTOP PROJECT

- A real estate building company based on Tianjin but operating projects in multiple cities:
  - Revenue before WINTOP intervene RMB 170 million
  - After one year since training started: RMB 700 million
- A wine manufacturer company:
  - Corporate culture changed from “one-man-show” to collective decision making and participatory management
  - Business efficiency improved so much that the owner even build a church… to acknowledge the importance of culture.

Possible SOS management scientists/artists: who are focused on “observer/actor” part of the system

- Elton Mayo, the human problems of an industrial civilization, 1933 (Hawthorne studies)
- Abraham Maslow, motivation and personality, 1954
- Frederick Herzberg, the motivation to work, 1959
- Elliott Jacques, cognitive capacity, (long time research)
- Douglas McGregor, the human side of enterprise, 1960
- Rensis Likert, new patters of management (via participation) 1961
- Henry Mintzberg, the nature of managerial work, 1973
- Chris Argyris & Donald Schon, organization learning, 1978
- Reg Revans, action learning, 1979
- Meredith Belbin, management teams – why they succeed or fail, 1984
- Charles Handy, the age of unreason, 1989

Questions?



Jason Jixuan Hu, Ph.D.
Independent Researcher
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Phoenix, AZ, USA
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FOUR QUESTION MARKS TO BE DISCUSSED: SCIENCE? CYBERNETICS? FIRST ORDER? SECOND ORDER?

- *FOR IASCYS CONFERENCE, OCT.2015, CHENGDU, CHINA*

- Dear IASCYS colleagues, the contents after this page are in Chinese. They are some additional information about WINTOP Project. I include them here since our Chinese colleagues (Jiuping Xu, Gifa Gu) might be interested. If you don't read Chinese, just enjoy the pictures that contains a younger me. Best regards - JJH

您了解他们吗？

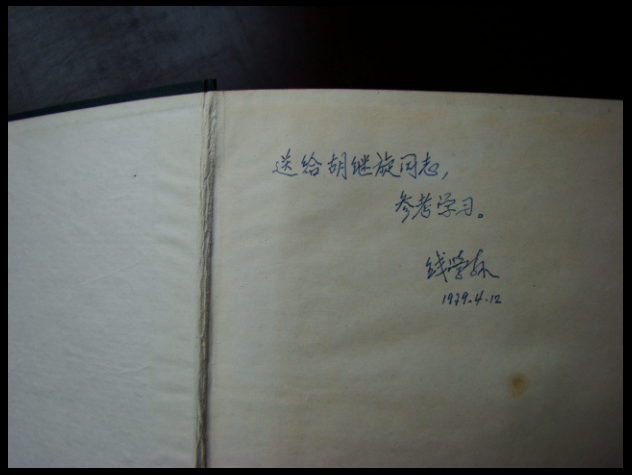
- 钱学森
- 南怀谨
- 冯福尔斯特
- 阿吉里斯
- 索罗斯
- 金观涛
- 彼得圣吉
- 马图拉纳
- 艾柯夫
- 斯柏林

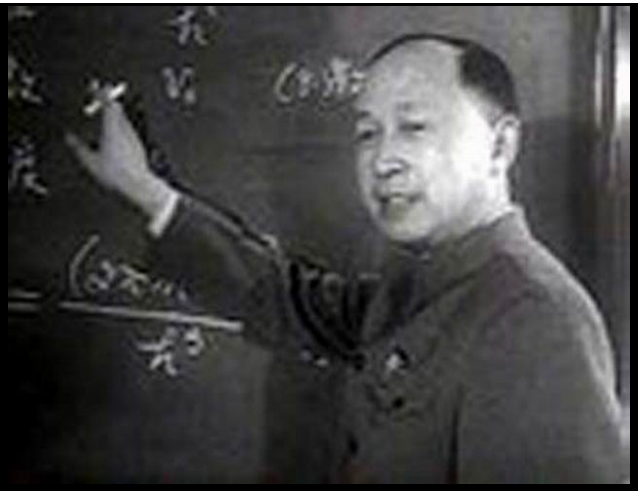
钱学森　　金观涛

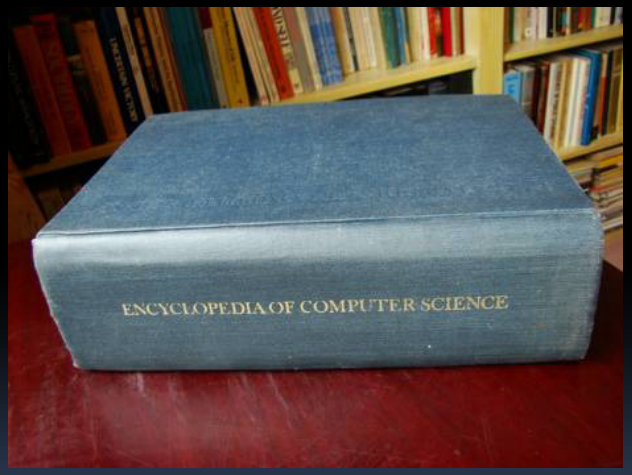
（1911—）　　（1947—）

–科学之光照亮探索之路

一位至尊为国家功臣，一位“乘桴浮于海”，他们两位共同为青年时代的胡继旋指出了事理学（控制论、系统论）的研究方向。


送给胡继旋同志，
参考学习。
钱学森
1979.4.12




ENCYCLOPEDIA OF COMPUTER SCIENCE

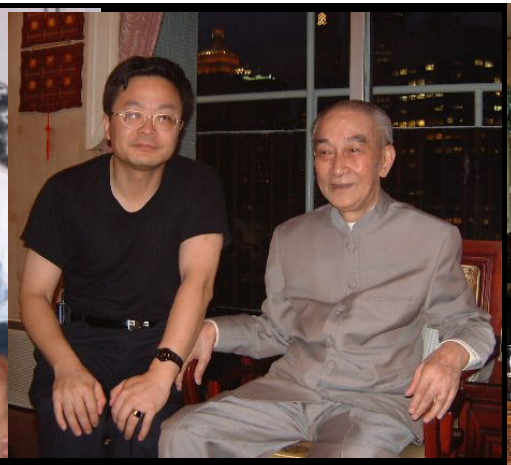
金观涛，中国七十年代思想解放的先驱者，是著名的《走向未来》丛书的组织者，中国最早把事理学系统论思想引入并运用于社会改革努立的著名学者和八十年代的四大青年思想领袖之一。胡继旋通过建立稳泰的培训事业，把金观涛有关社会改革的思想以具体工作方法的形式推进到各种类型的组织当中。

南怀谨　　彼得圣吉

（1918—）　（1948—）

—传统精华的传承与学习型的人生观

一位是中国历史传统文化的活博物馆，也是胡继旋长期的指导老师，另一位是带领西方管理学界高度关心东方思想的变革领袖，也是胡继旋的师兄弟...



自从1986年胡继旋到南怀瑾先生门下学习中国传统文化之后，南先生一直从国学的角度指导胡继旋的研究工作。关于为中国企业界引入西方先进教育培训的内容与方法一事，南先生为胡继旋题词：“能受天磨真铁汉，不遭人忌是庸才”。

彼得·圣吉的成功之处在于他有效地把深刻的事理学思想与企业运作实践相结合，写出了通俗易懂的《第五项修炼》及后续篇，提出了“学习型组织”的变革性观念。

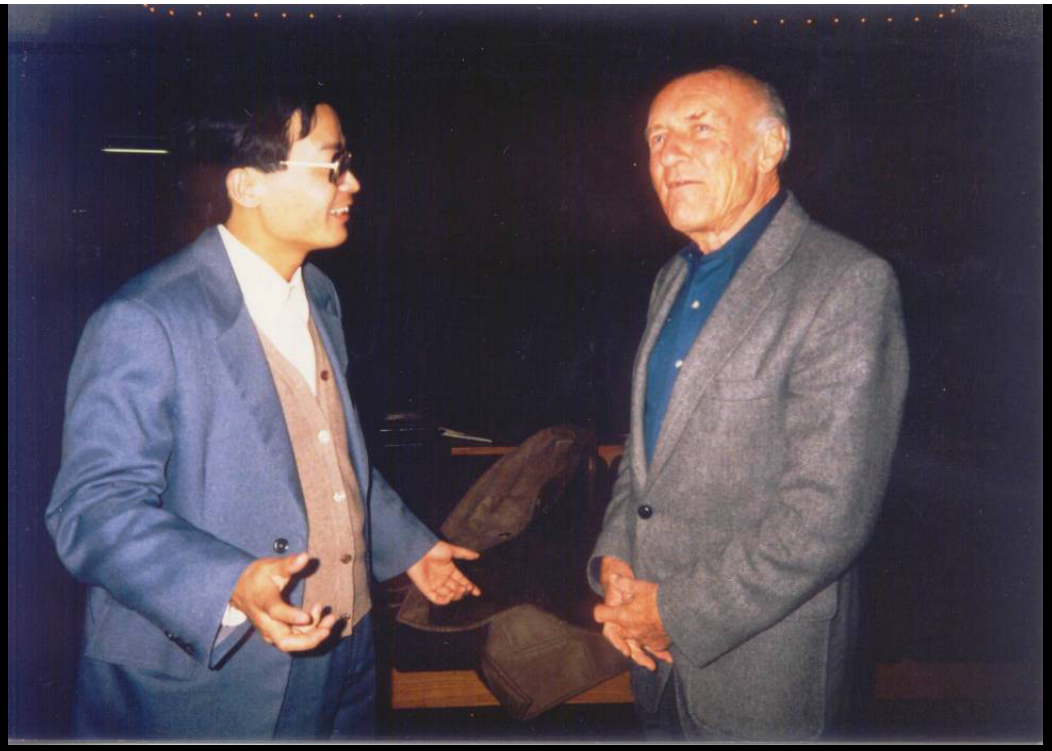
不足之处是《第五项修炼》仅利用了事理学在20世纪40年代的学术成果。稳泰的事理学课程将为学员介绍该学科当代的最前沿成果。文章链接：《超越彼得圣吉》http://http://wintopgroup.com/readings/articles/BeyondPeterSenge.pdf

冯福尔斯特　马图拉纳

（1911-2002）　（1928-）

—人类理性前沿的重大突破

一位是国际事理学领域的天才级的思想领袖，多次的指导导致了达理学理论的创立，另一位是事理学领域当今仍健在的学术先驱，影响力波及许多新兴边缘学科…



2002年去世的海因茨·冯·福尔斯特多年来一直是美国事理学（控制论）学会的领袖之一，是自维纳、麦卡洛赫、贝特森之后的第二代事理学学术核心。他同艾什比共同建立的美国生物计算机实验室在几十年中产出了大批中国学者所不知的优秀成果，其中最为影响深远的是“二阶事理学”，又称为“建构主义实验认识论”。佛尔斯特及艾什比均是胡继旋的导师斯图安玻尔贝的导师。

介绍链接：http://wintopgroup.com/readings/articles/foerster.pdf

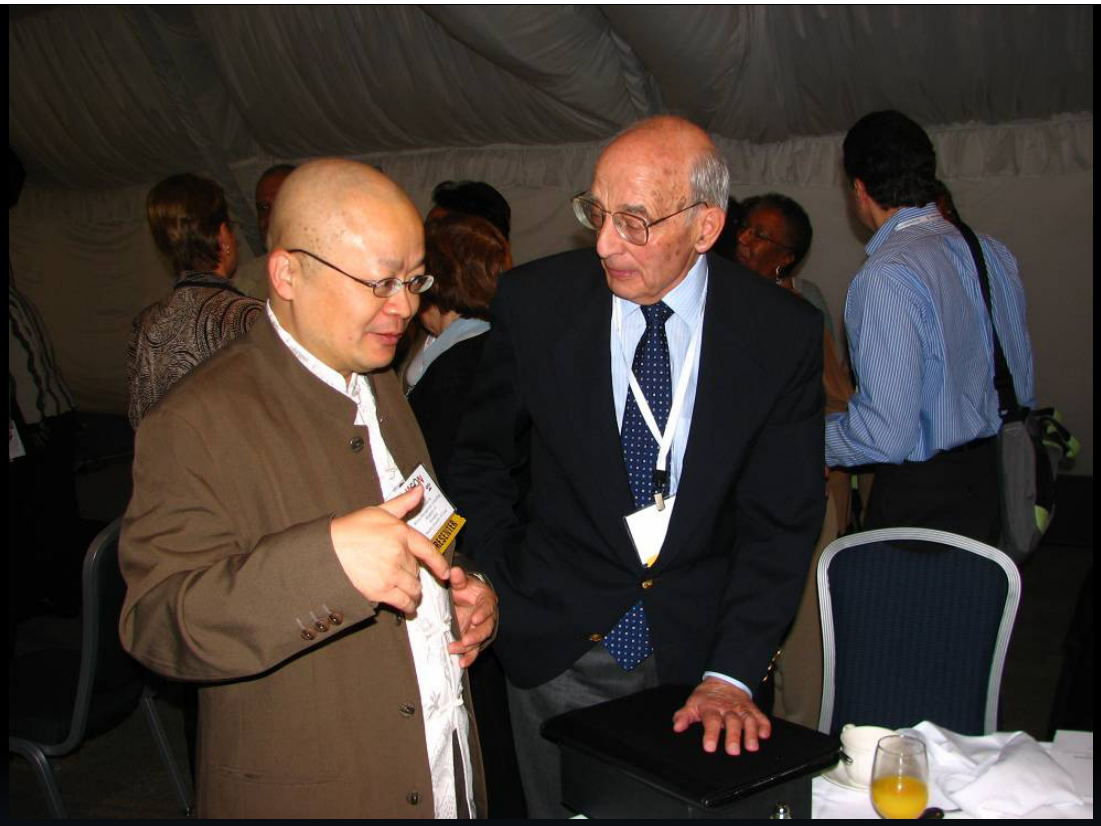
汉伯托·马图拉纳是美国事理学会的核心学科带头人之一，也是事理学南美学派的领袖。他的名字在系统思考影片《心智远足》中被影片主角与诺贝尔奖获得者普里高津及事理学元老贝特森一起相提并论。他的思想影响了事理学科普作家彼得·圣吉及其写作团队。他关于“自产系统”的理论在受到事理学影响的多个学科中发挥了重要作用。

阿吉里斯　　艾柯夫

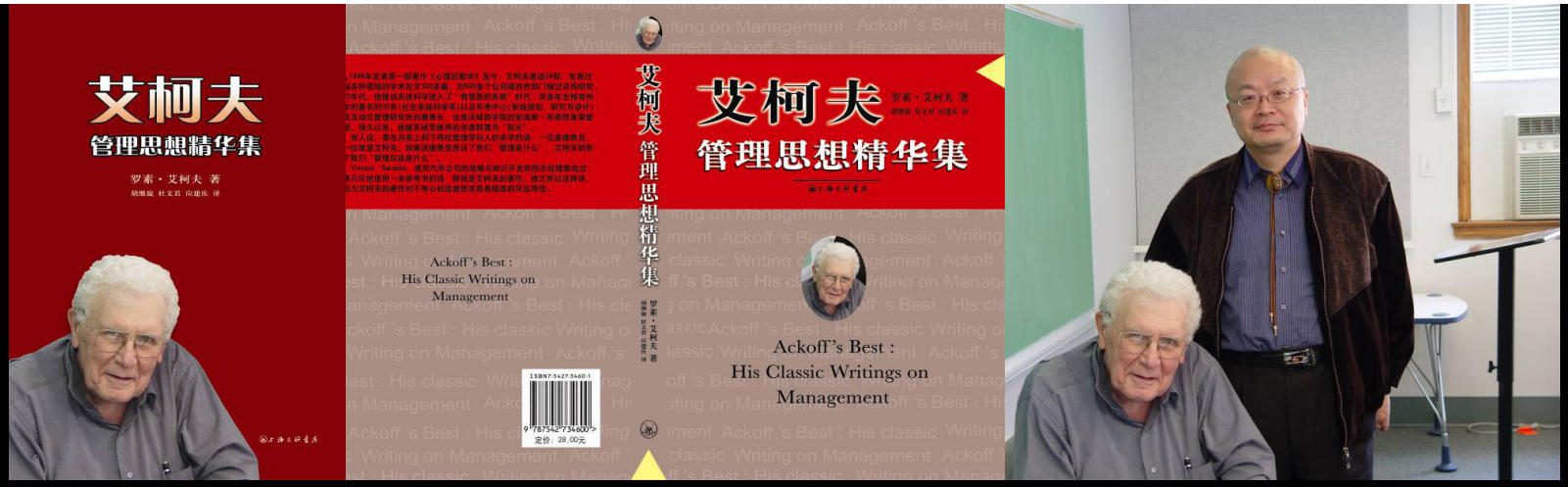
（1923-）　　（1919-）

一管理学之真精华指引实践的道路

一位是“学习型组织”概念的创始人，也是稳泰在国际组织发展学协会的同事，另一位是德鲁克（杜拉克）的老师，也是稳泰的高级顾问…



克利斯阿吉里斯（也是彼得圣吉的老师）在管理学界提出的“双环学习”理论，为一切想要做到“与时俱进”的组织和个人指明了重要方向，也为稳泰建导培训课程系列奠定了坚实的理论基础。稳泰的方法体系是真正能够实施“学习型组织”的必由之路。



罗素艾柯夫不但是稳泰的高级顾问，也是德鲁克、德波诺的老师，美国总统克林顿专门致以特别问候的管理学泰斗。艾柯夫的思想由稳泰翻译介绍，三联出版。

http://www.wintopgroup.com/readings/articles/Ackoffpreface.pdf

索罗斯　　斯柏林

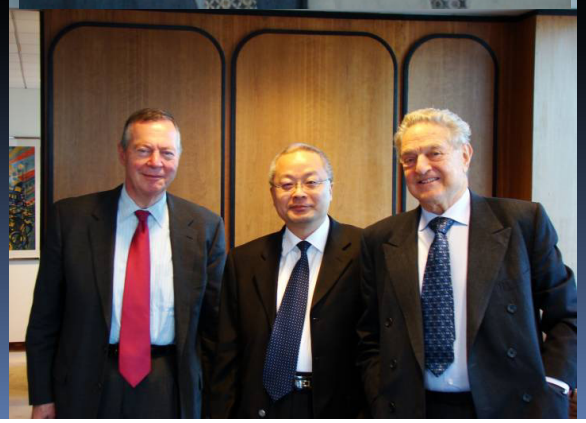
（1930-）　　（1921-）

一改造社会亲力亲为的楷模

一位是以一己之力参与改变了世界的实践者，另一位创立了从8位学生发展到30万学生的新型高等教育旗舰上市公司。两位都对稳泰实践有深刻影响…



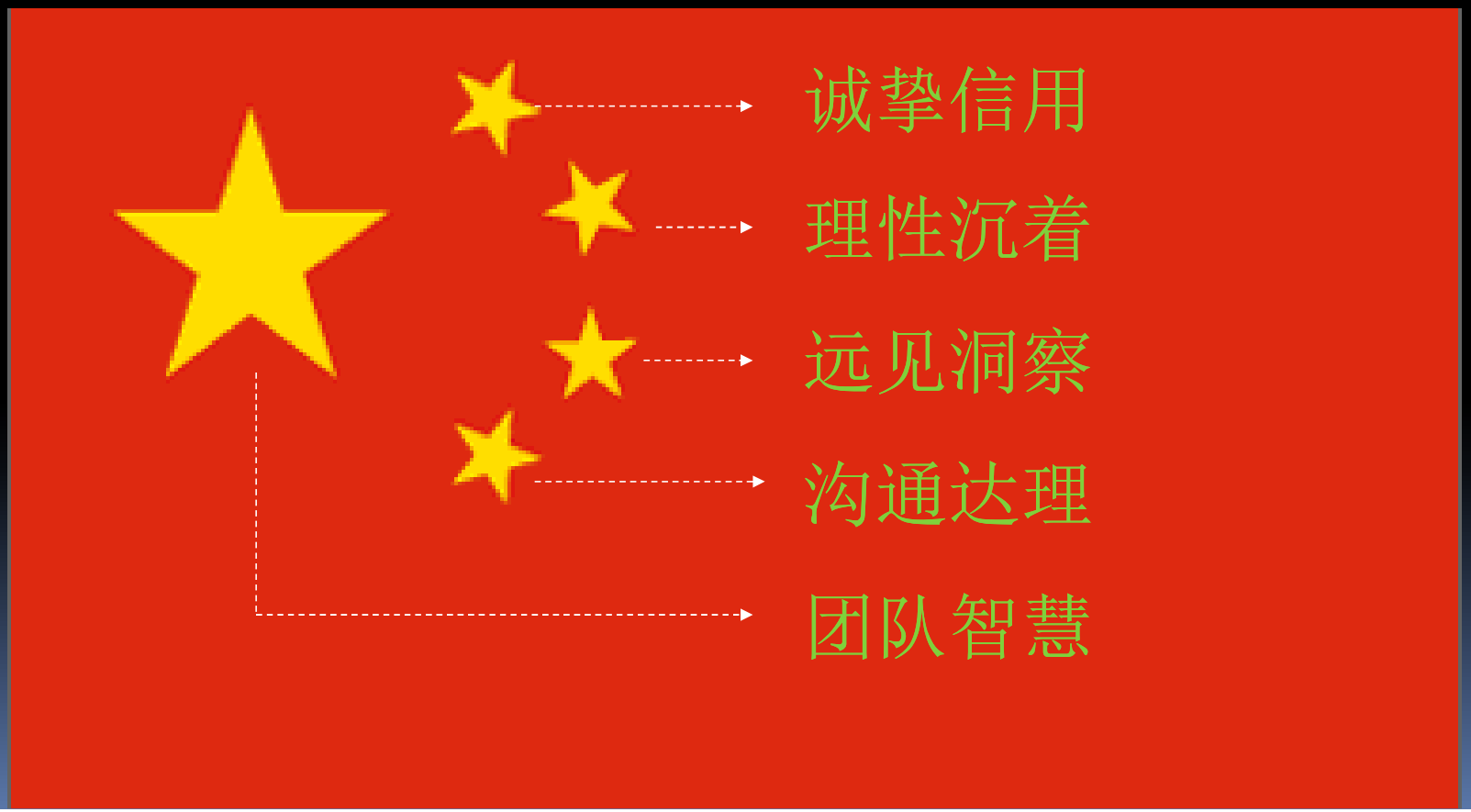




胡继旋与索罗斯先生交往十几年，曾任其中国事务顾问，同时向他学习金融市场的知识。在为索罗斯先生著作的所写的序言中，胡继旋指出，索罗斯先生是一位关怀人类进步的实践哲学家。他在金融市场上丰富的经验可以对我国的金融体制 的建全完善提供有益的意见，他对目前资本主义的批判及制定有利于发展中国家的新金融规则的建议显然使他成为中国的朋友。索罗斯的开放社会基金会每年投入三、四亿美元到各种公益事业。1988—89年间，索罗斯先生资助成立了中国改革与开放基金会。索罗斯先生的金融学术思想与稳泰公司 的核心课程之一“事理学原理”中的思想异曲同工。介绍文章：
http://wintopgroup.com/readings/articles/soros_c.php

在70年代力排众议，坚持高等教育改革实验并一手创立了美国阿波罗教育集团的约翰斯柏林，开辟了成年人教育培训的创新模式，引发了美国高等教育的革命性变化。胡继旋接受了斯柏林及阿波罗集团的长达三年的培训工作与实践，掌握了著名的“阿波罗经验”，并将其调整到适合于中国国情的稳泰发展规划中。

经过长达二十五年的学习与工作实践，上述十位导师与同事的精华思想与成功经验得到了高度提炼与融会贯通，奠定了稳泰的核心价值观及核心竞争力，那就是……


诚挚信用
理性沉着
远见洞察
沟通达理
团队智慧

稳泰核心竞争力

1. 丰富的知识产品原料仓库
2. 实践证明了的阿波罗经验
3. 独特的价值定位与方法论
4. 已有历史记录的国际影响
5. 真实合作的国际战略伙伴

稳泰的使命

通过在各行各业的各类组织中推广参与式管理的文化和建导型领导的工作方法，为中国的各类组织注入群体激活力、同步协作力和目标制导力，削减内耗内斗；通过培育开发群策群力的集体智慧和团队能量来提高组织的绩效，使其真正获得行动学习的能力，建成名副其实的学习型组织。

成思危对胡继旋说：你做的事是第一个吃螃蟹


胡继旋对陈至立说：阿波罗经验的核心是体制创新

“是建立教育特区的时候了！”胡继旋对专程访问美国阿波罗教育集团的中国教育部长陈至立大声呼吁。

稳泰课程内容

1. 管理人员基础建导技能入门
2. 提高沟通能力与效率的建导技术
3. 快速建立优质共识的建导技术
4. 获得执行承诺与持续改善的建导技术
5. 团体参与式战略规划的建导技术
6. 建导型系统辅佐教练技术
7. 针对复杂难题的系统思维
8. 高难形势的沟通共赢
9. 企业结构优化与企业文化创新
10. 圆桌领导力的非营利组织/政府版