HKU03x Humanity and Nature in Chinese Thought

Week 3: Mozi and Logic
Section 4: Introduction to Logic: Dissecting the Impasse

- Logic plays a crucial role in the development of Western thought
- A major difference between Chinese and Western philosophy: a major field of study, Logic, is virtually absent from Chinese philosophy
- Logical theory is a species of ways to discipline discourse so progress can be made
- 'Argument' has two meanings:
    - 'Have an argument with somebody' = disagree, quarrel
    - 'Give an argument' = give a proof
- A similar ambiguity affects the Chinese concept of 辯 *biàn*[distinction] –we can 辯 *biàn*[dispute] with others and in the process one of us may辯 *biàn*[distinction] (make a distinction).
- Proof: a series of sentences, premises, arranged to justify a conclusion—the conclusion "follow from" the premises
- In an argument, we divide the sentences into two roles 'premises' and 'conclusions'.
- Between 'premises' and 'conclusion' we are likely to include 'therefore' or 'hence' or 故*gù*[therefore].
- In the West, logic can be seen as a normative science - it classifies arguments into 'good' and 'bad.'
- Good arguments are called 'valid or 'sound'

- Valid arguments have a valid *form* or structure: hence Formal or Symbolic Logic
- "All A are B, all B are C, therefore all A are C"
- Valid form$d=_{df}$ if the premises (in that form) are true, the conclusion (in that form) will *always* be true
- Sound argument$=_{df}$ A valid argument with true premises
- Conclusion: All sound arguments have true conclusions
- If you have a valid argument and reject the conclusion → you should reject at least one of your premises
    - This principle underlies the moral reform impasse