

# Meeting 6: Philosophy East and West

CS198: The Poetry of Computer Science, the Computer Science of Poetry  
Philosophy of Computation at Berkeley  
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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!

(Kipling, "The Ballad of East and West")

## 1 Introduction

Today, we will talk about comparative philosophy: the comparison of philosophies from wildly different traditions and cultures. While there are rich traditions of philosophy outside of what commonly falls under the categories "West"<sup>1</sup> and the "East"<sup>2</sup>, this is outside of my area of expertise, and so sadly we will have to limit ourselves to just "Western" and "Eastern" philosophies for now. Our first objective today is to disabuse ourselves of the notion that Western Philosophy is the only true philosophy, or, if you're not willing to do that, at least give a hearing to arguments for that disabusal. Then we will do some comparative philosophy, as always trying to use ideas in theoretical computer science to help us out.

## 2 The "Platonic" History of Philosophy, And a Bear

Once upon a time in Ancient Greece there were great philosophers named Socrates, Plato, and Aristotle. They were amazing philosophers and they wrote a lot of great philosophy books. But then Greece collapsed and their wondrous philosophy was eclipsed for a thousand years, during which Europe languished in the Dark Ages. It was not until the Renaissance, and the dogged pursuit of truth by Jesuit scholars, that their books were recovered, painstakingly translated, and the torch of knowledge lit bright once again. So followed the Enlightenment, whereby Europe was freed from the shackles of superstition that had hitherto repressed Humanity. Inspired by the great philosophical texts of Ancient Greece, great men like Kant, Hume, and Mills wrote their own amazing philosophy books. They wrote, also, that, since Europe was now freed from irrational superstition, it must now spread the light of rationality to the rest of the world. So they did, and the world became a better place.

Once upon a time in Ancient Korea there was a tiger and a bear. They really wanted to be human, so they visited God one day and asked him to make them human. God said, "O.K., take this bunch of chives and garlic. If you go into that cave and eat this for a hundred days, you will become human." The tiger and bear went into the cave, determined. However, around the 30th day, the tiger could not bear it anymore. "Bear, I can't bear it anymore. I need the taste of meat in my mouth. Farewell." However, the bear persisted, and by the hundredth day, the bear became a full human woman. The bear-woman married God, and their grandson, Dan-gun, ruled as the First King of Korea. Dan-gun espoused the philosophy of

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<sup>1</sup>Today, just Europe and the USA

<sup>2</sup>Today, just East Asia

Hong-Ik-In-Gan, which roughly translates to “benefit humanity widely”, and this is still the ruling ideology of Korea today.

Consider the following quote-argument:

History cannot be written as if it belonged to one group [of people] alone. Civilization has been gradually built up, now out of the contributions of one [group], now of another. When all civilization is ascribed to [one group], the claim is the same one which any anthropologist can hear any day from primitive tribes – only they tell the story of themselves. They too believe that all that is important in the world begins and ends with them . . . We smile when such claims are made [by primitive tribes], but ridicule might just as well be turned against ourselves . . . Provincialism may rewrite history and play up only the achievements of the historian’s own group, but it remains provincialism.

(Ruth Benedict, Anthropologist)

Saying philosophy originated from Greece and flourished only in Europe is at least as absurd as saying that a bear turned into a human and married God. The two stories above are both nothing more than “creation myths”, convenient metaphorical stories made up to legitimize existing power structures. They are roughly equal in how true they are.

Consider the following argument:

Some would say that Eurocentrism is bad for us, indeed bad for the world, hence to be avoided. Those people should avoid it. As for me, I prefer truth to goodthink. I feel surer of my ground.

(David Landers, Professor of History at Harvard, *The Wealth and Poverty of Nations*)

While clearly there may be some exaggeration in the first story, it is much more true than the second story. First of all, the first story is based on historical facts. Greece *did* have some of the world’s best philosophers, and the Enlightenment *did* promote rationality. Second of all, just look around: Western ideas in fact achieved dominance, it’s ruled the world for hundreds of years, and it has given us all sorts of wonders from computers to penicillin!

- Discuss the arguments with your group.

### 3 Dialectical Thinking and Computational Complexity

Let’s revisit a topic we talked about in the very first class, a bit more in depth this time.

Chinese ways of dealing with seeming contradictions result in a dialectical or compromise approach—retaining basic elements of opposing perspectives by seeking a “middle way.” On the other hand, European-American ways, deriving from a lay version of Aristotelian logic, result in a differentiation model that polarizes contradictory perspectives in an effort to determine which fact or position is correct. Five empirical studies showed that dialectical thinking is a form of folk wisdom in Chinese culture:

- Chinese participants preferred dialectical proverbs containing seeming contradictions more than did American participants.
- Chinese participants also preferred dialectical resolutions to social conflicts
- and preferred dialectical arguments over classical Western logical arguments.
- When two apparently contradictory propositions were presented, American participants polarized their views, and Chinese participants were moderately accepting of both propositions.

Dialectical thinking can be seen as an extreme case of relational thinking. Relational thinking, sometimes called holistic thinking, is a style of thought that incorporates all elements, and relations among the elements, not leaving any out. The dictum “everything is connected” summarizes this style of thought. Analytical thinking, sometimes called object-oriented thinking, is a style of thought that only concerns itself with a select few elements, ignoring the rest. Much of modern science, with its idealizations and abstractions, can be seen as engaging in analytical thinking.

Consider the following argument:

It has been demonstrated repeatedly through psychological experiments that East Asian cultures think relationally: that is, they think about the relations between objects rather than objects themselves. Western cultures, on the other hand, think analytically: that is, they think about the objects themselves than the relations between objects.

Given  $n$  objects, there are  $2^n$  subsets of the objects. It is plausible that each subset of objects defines a relation between the objects. Therefore, to think relationally is equivalent to think about  $2^n$  things, whereas to think analytically is equivalent to think about just  $n$  things.<sup>3</sup>

Because  $2^n$  is so big, it is usually infeasible to enumerate each and every relation and reason about each and every one of them separately, and it is impossible to resolve contradictions among all of them. Therefore East Asian cultures rely more on intuition than logic. On the other hand,  $n$  is not so big, and it is usually feasible to enumerate each and every one of the objects, and it is possible to avoid all contradictions. Therefore Western cultures rely more on logic than intuition.

- What assumptions, if any, are made in the argument?
- Lay out the argument in an explicit form. Through what logical connection does one statement lead to the next?
- Can you attack an assumption? Can you attack a logical connection?
- Taking the argument as given, what might be a weakness/strength in the “East Asian” culture’s way of thinking? What might be a weakness/strength in the “Western” culture’s way of thinking?

Consider the following argument:

The West is frequently characterized by “individualism”, whereas the East is frequently characterized by “collectivism”. But culture comes before language and not the other way around. In other words, language is a consequence of culture, and language is understood only as embedded in a particular culture. As an example, while “independence” has a decidedly positive moral valence in the English language, the corresponding “translation” in the Korean language has a decidedly negative moral valence attached to it. Therefore, it is impossible to use language to sufficiently capture the differences between two totally different cultures: it would be like jumping over one’s own shadow. Instead, we must use a more precise and culturally universal language, the language of mathematics, to capture these differences.

- What assumptions, if any, are made in the argument?
- Lay out the argument in an explicit form. Through what logical connection does one statement lead to the next?
- Can you attack an assumption? Can you attack a logical connection?

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<sup>3</sup>This corresponds to Peng’s Dialectical Thinking, also:  $2^n$  where  $n$  is  $\aleph_0$  is equivalent to  $\aleph_1$ , and this is equivalent to the idea that some languages are uncomputable because there are only  $\aleph_0$  Turing machines while there are  $\aleph_1$  languages. Now substitute “uncomputability” with “contradiction”, which are the same concept, and we arrive at Peng.