

Belief in Science and Religion

Lecture 1: What can we say?



University of Hong Kong

10th January 2014

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Belief in Science and Religion

Lecture 1: What can we say?

- **Reductionism**
- **Holism**
- **Foundationalism**
- **Coherentism**

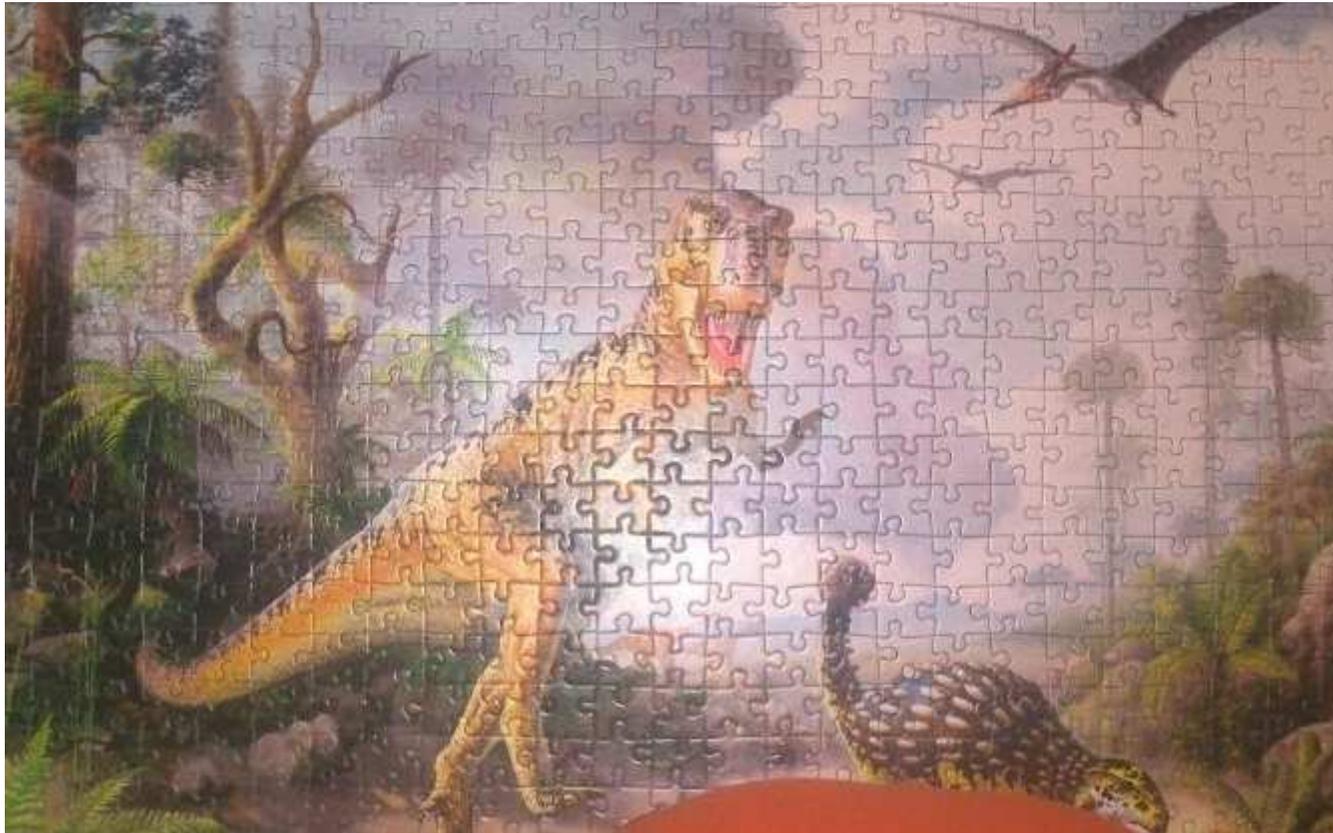
Reductionism

The whole is the sum of the parts.



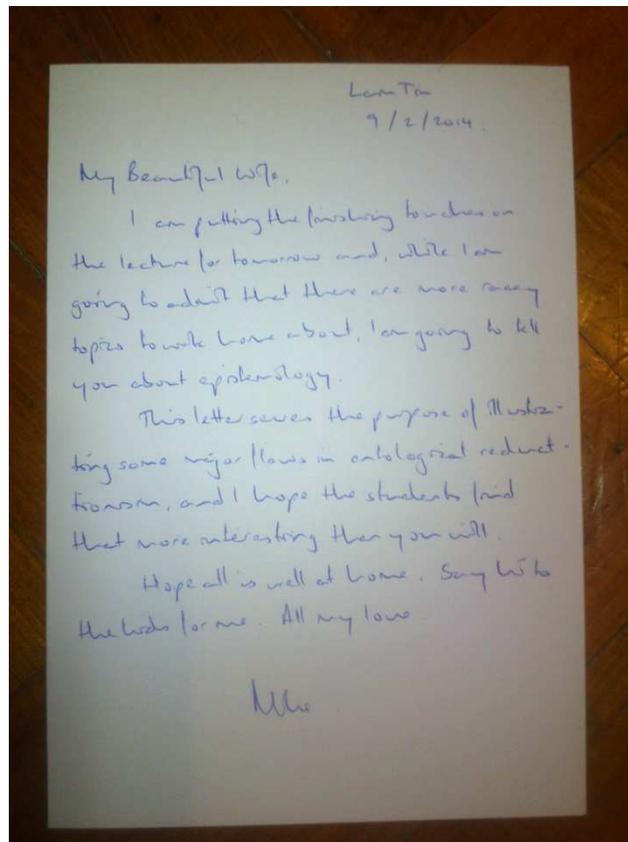
Ontological Reductionism

Higher level entities are nothing but arrangements of lower level entities.



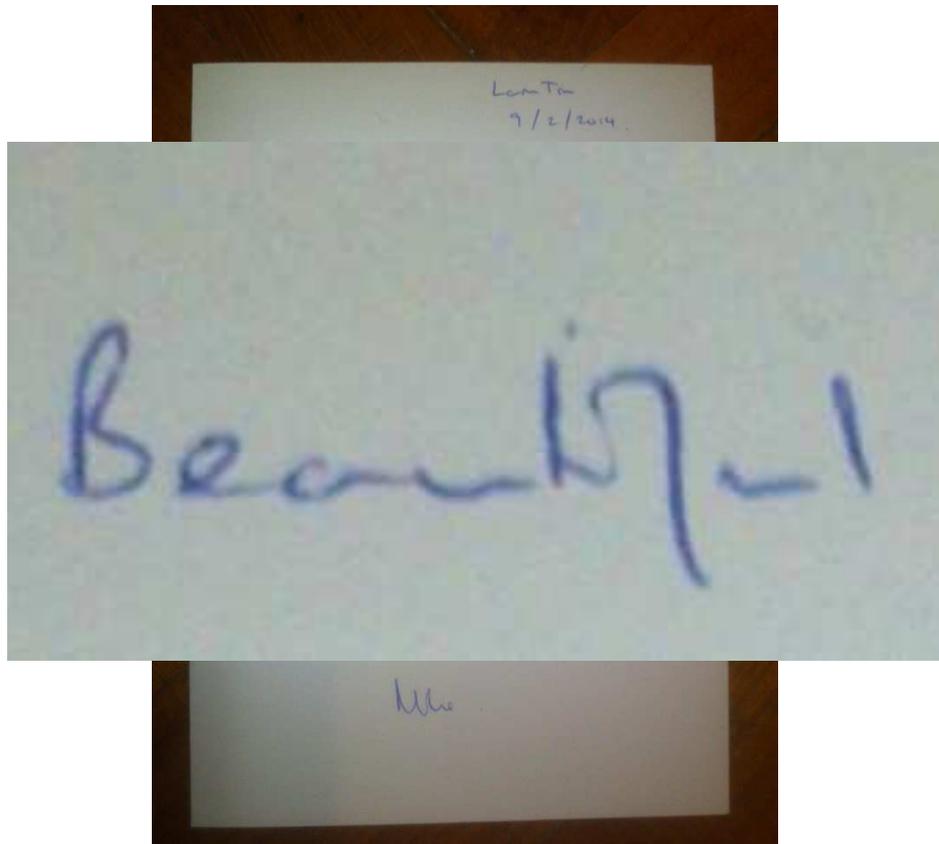
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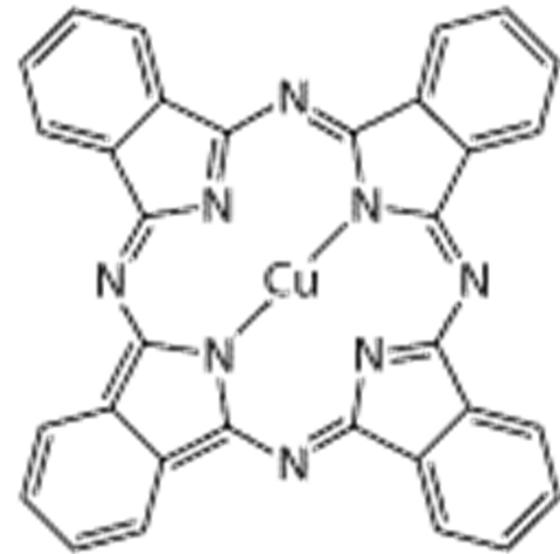


Ontological Reductionism

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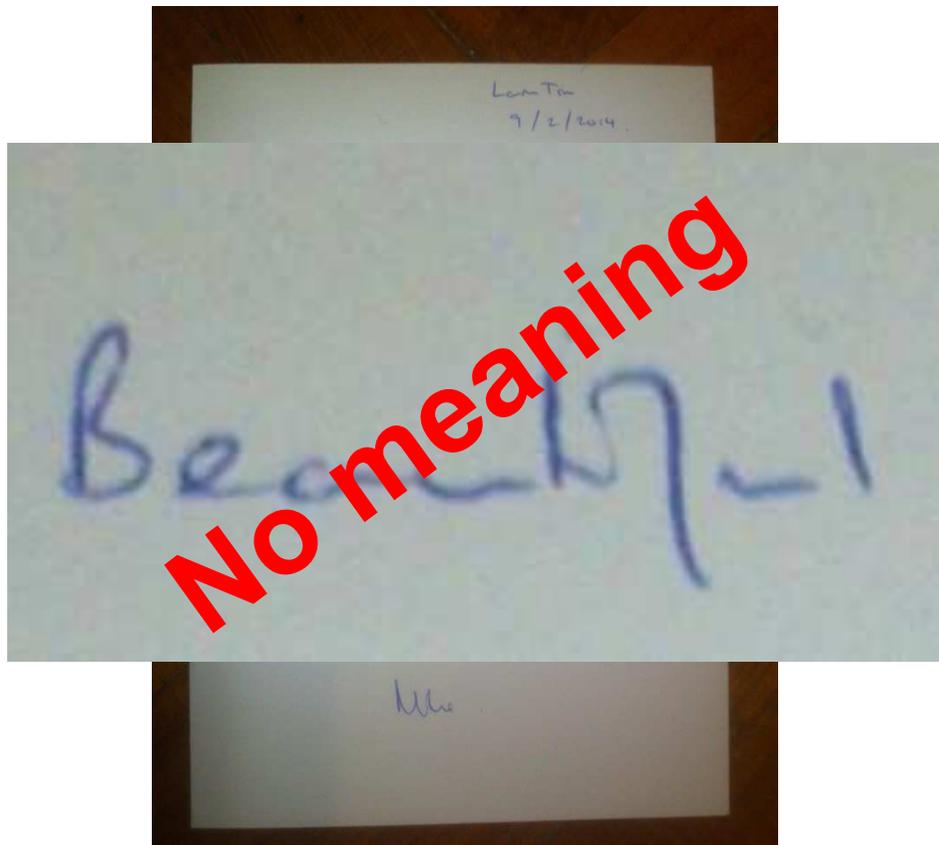
Higher level entity



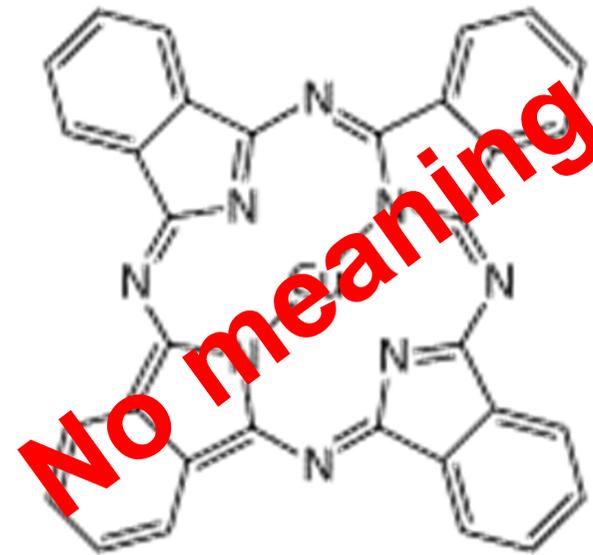
Lower level entity

Ontological Reductionism

Higher level entities are nothing but arrangements of lower level entities.



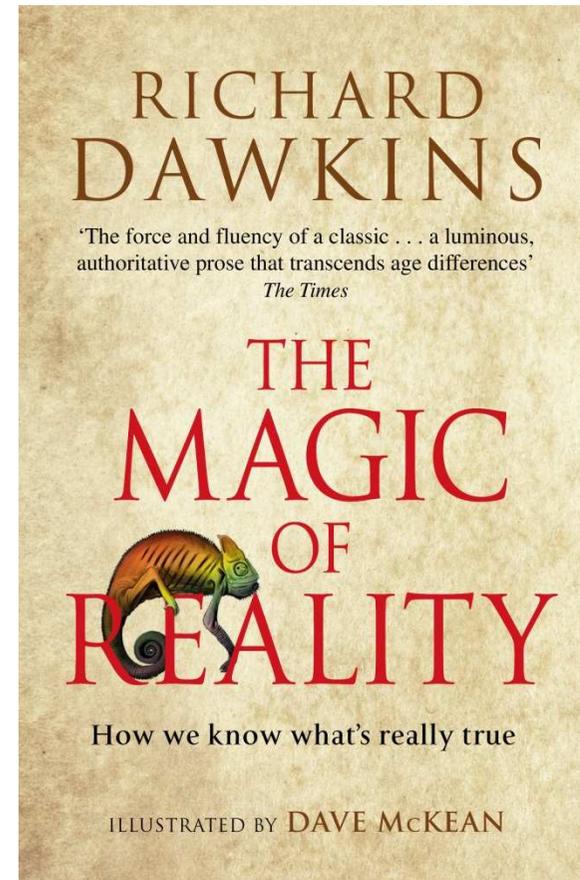
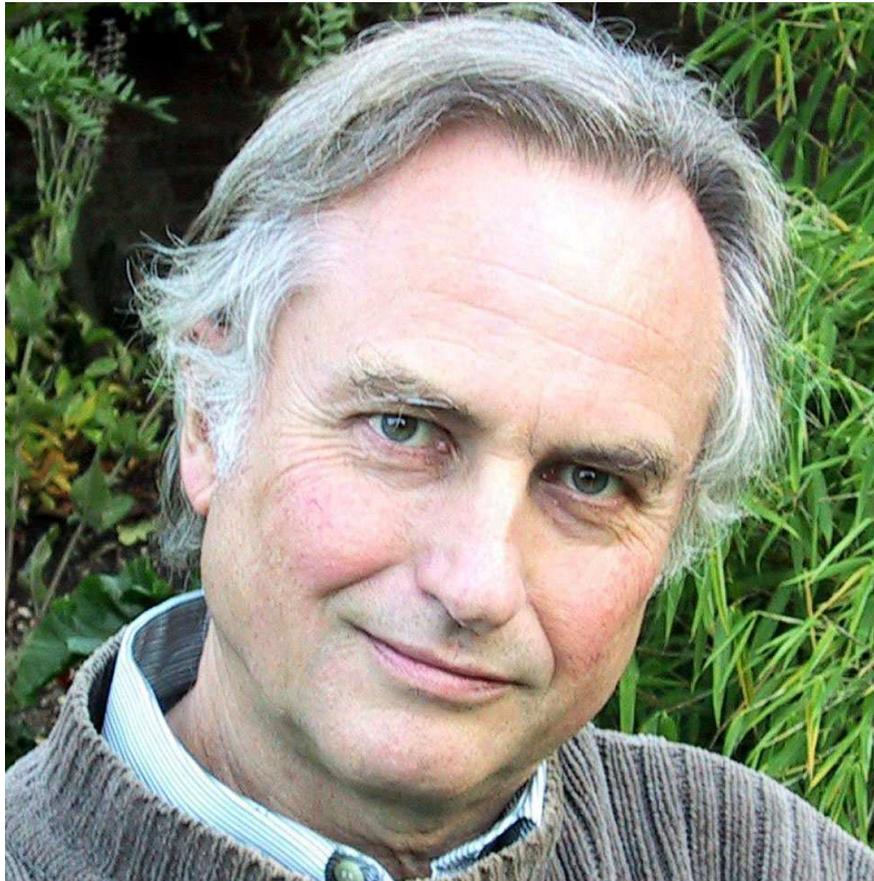
Higher level entity



Lower level entity

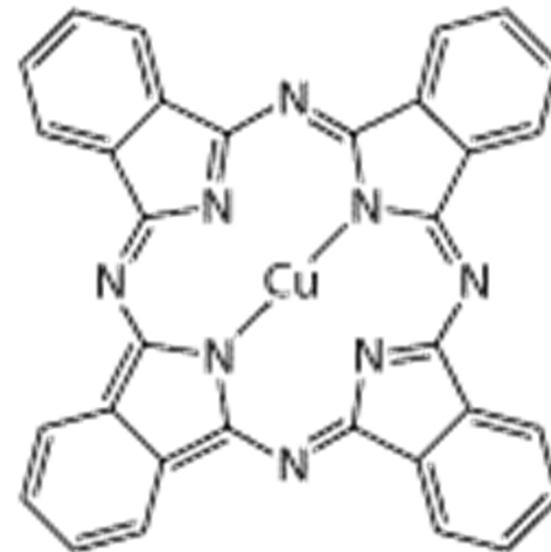
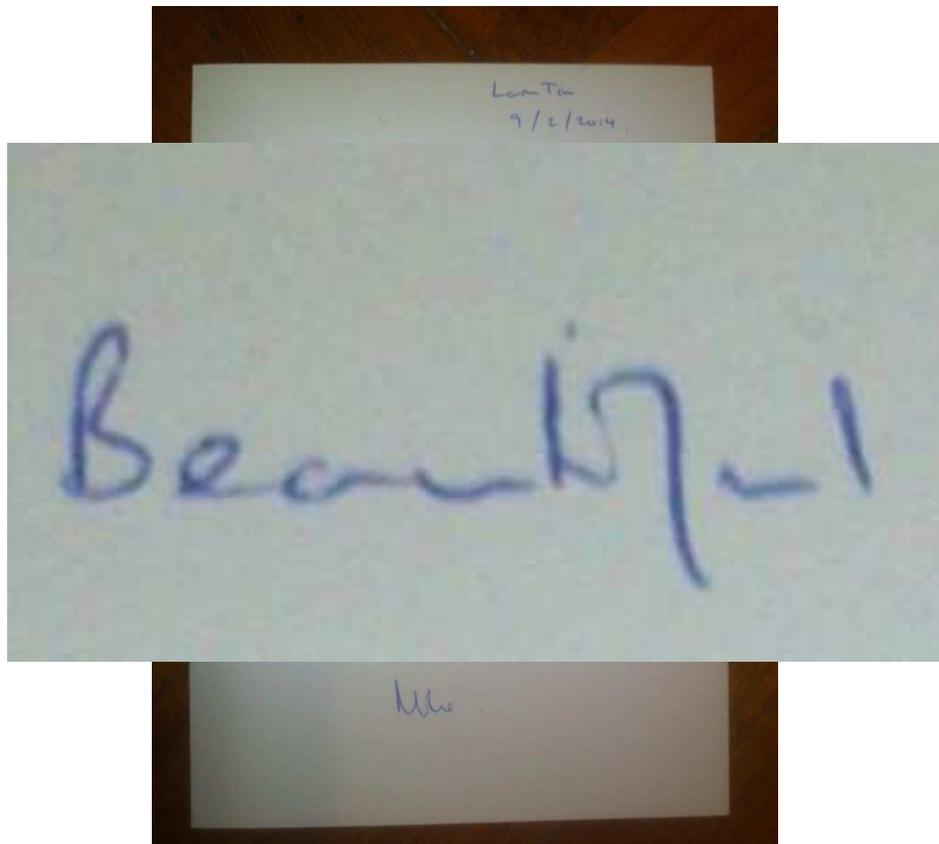
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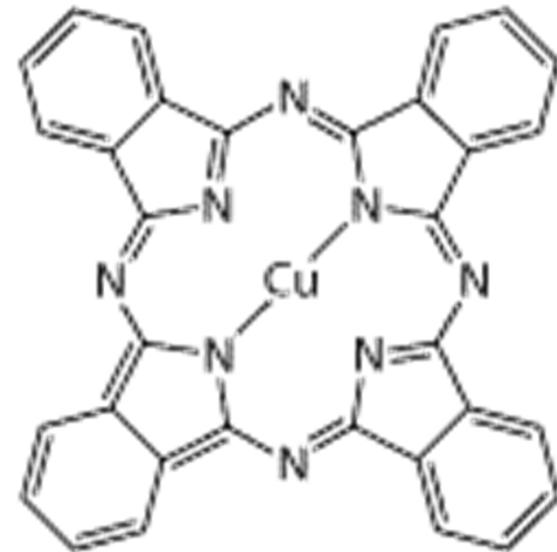
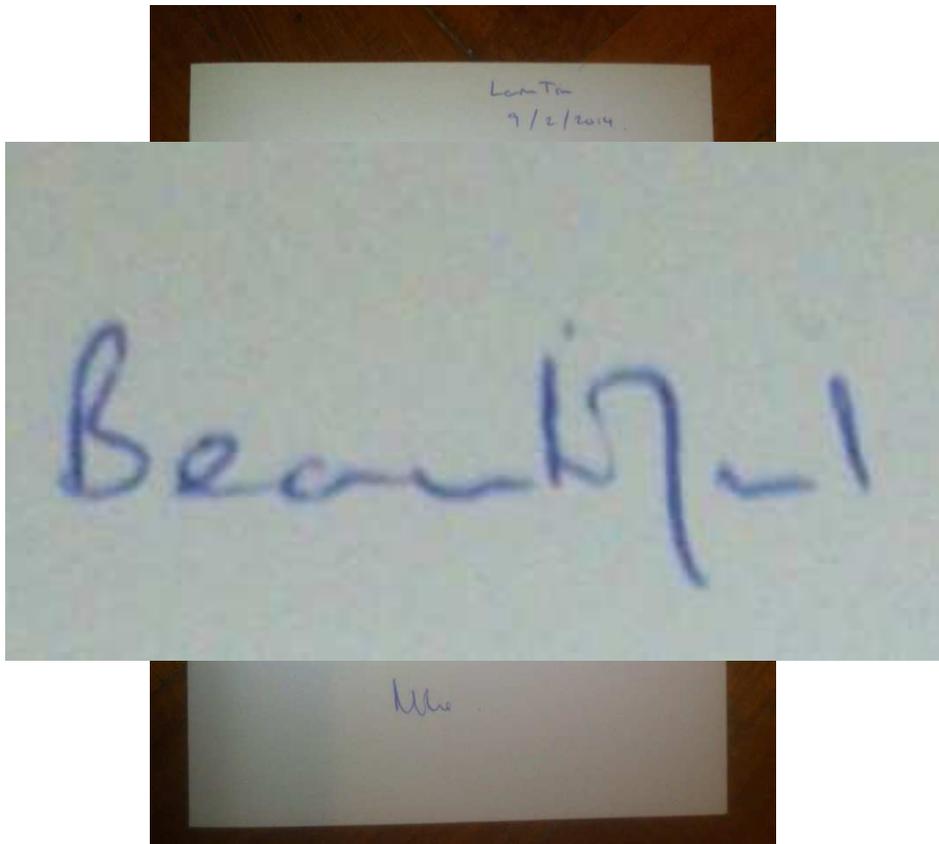
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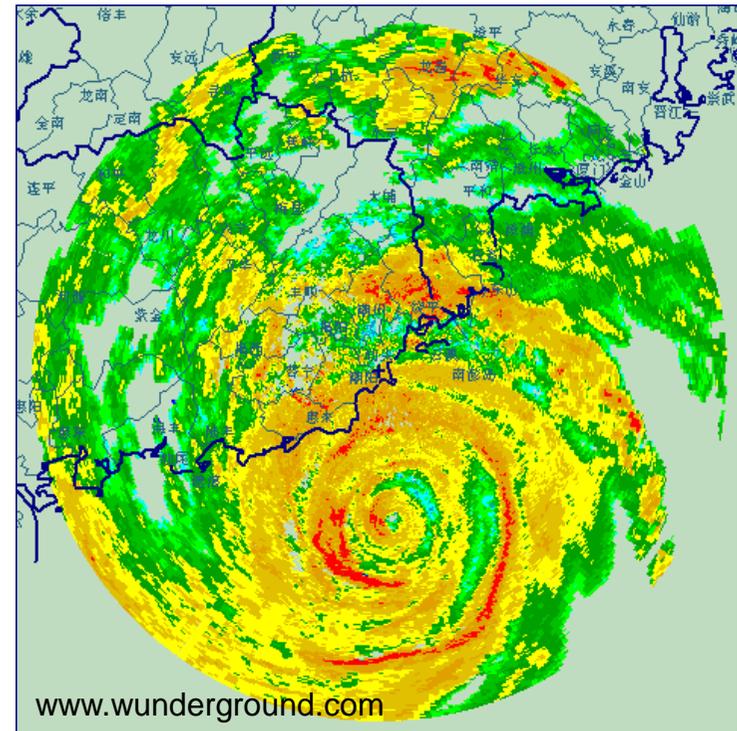
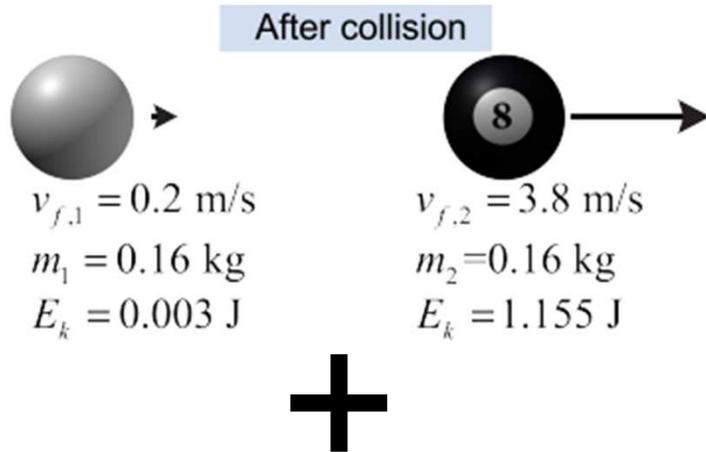
Ontological Reductionism

Higher level entities are nothing but arrangements of lower level entities.



Methodological Reductionism

The proper approach in scientific investigation is to reduce the object to its parts and understand the parts.

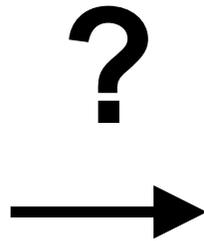


Methodological Reductionism

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www.its.caltech.edu

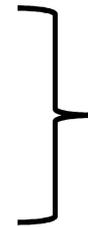


www.basicplanet.com/avalanche

Methodological Reductionism

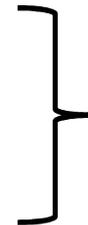
The proper approach in scientific investigation is to reduce the object to its parts and understand the parts.

Science works by reduction
+
Avalanches are not reducible



Science cannot talk
about avalanches

Avalanches are not reducible
+
We want to do avalanche science



Science does not only
work by reduction

Methodological Reductionism

The proper approach in scientific investigation is to reduce the object to its parts and understand the parts.



Methodological Reductionism

The proper approach in scientific investigation is to reduce the object to its parts and understand the parts.

Science works by reduction

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Avalanches are not reducible

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Avalanches are important



There are important things that science cannot talk about

Science works by reduction

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Avalanches are not reducible

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Science can talk about important things



Avalanches are not important

Methodological Reductionism

The proper approach in scientific investigation is ^{not always} to reduce the object to its parts and understand the parts.

Science works by reduction

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There are important things that science cannot talk about

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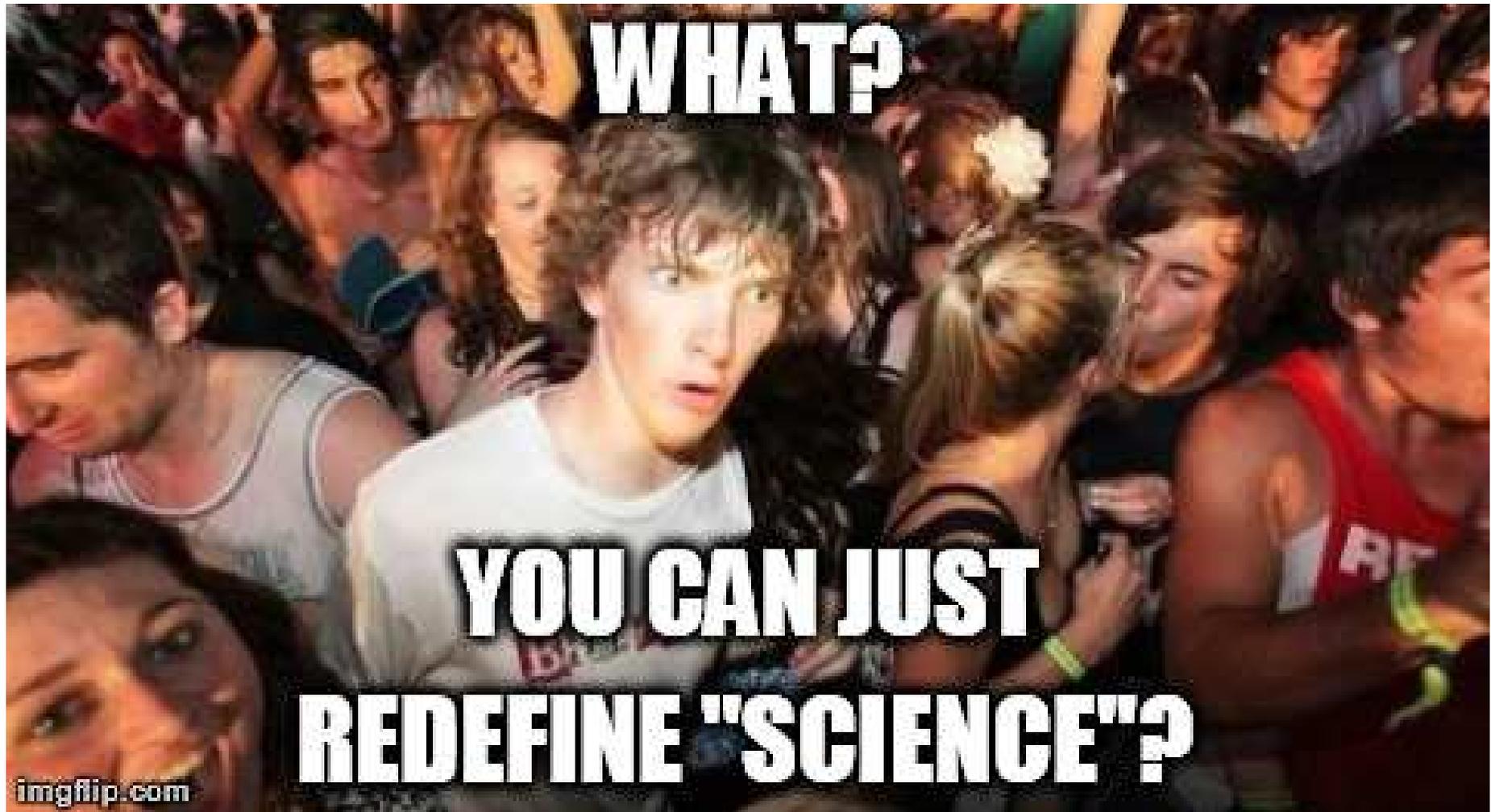
Science can talk about important things



Avalanches are not important

Methodological Reductionism

The proper approach in scientific investigation is ^{not always} to reduce the object to its parts and understand the parts.



Holism

It is not true that
the whole is simply the sum of the parts.

Foundationalism

Any statement must be justified by a more basic statement, or be properly basic itself.

Obvious beyond question





All statements are justified by a more basic statement,
or are properly basic themselves.



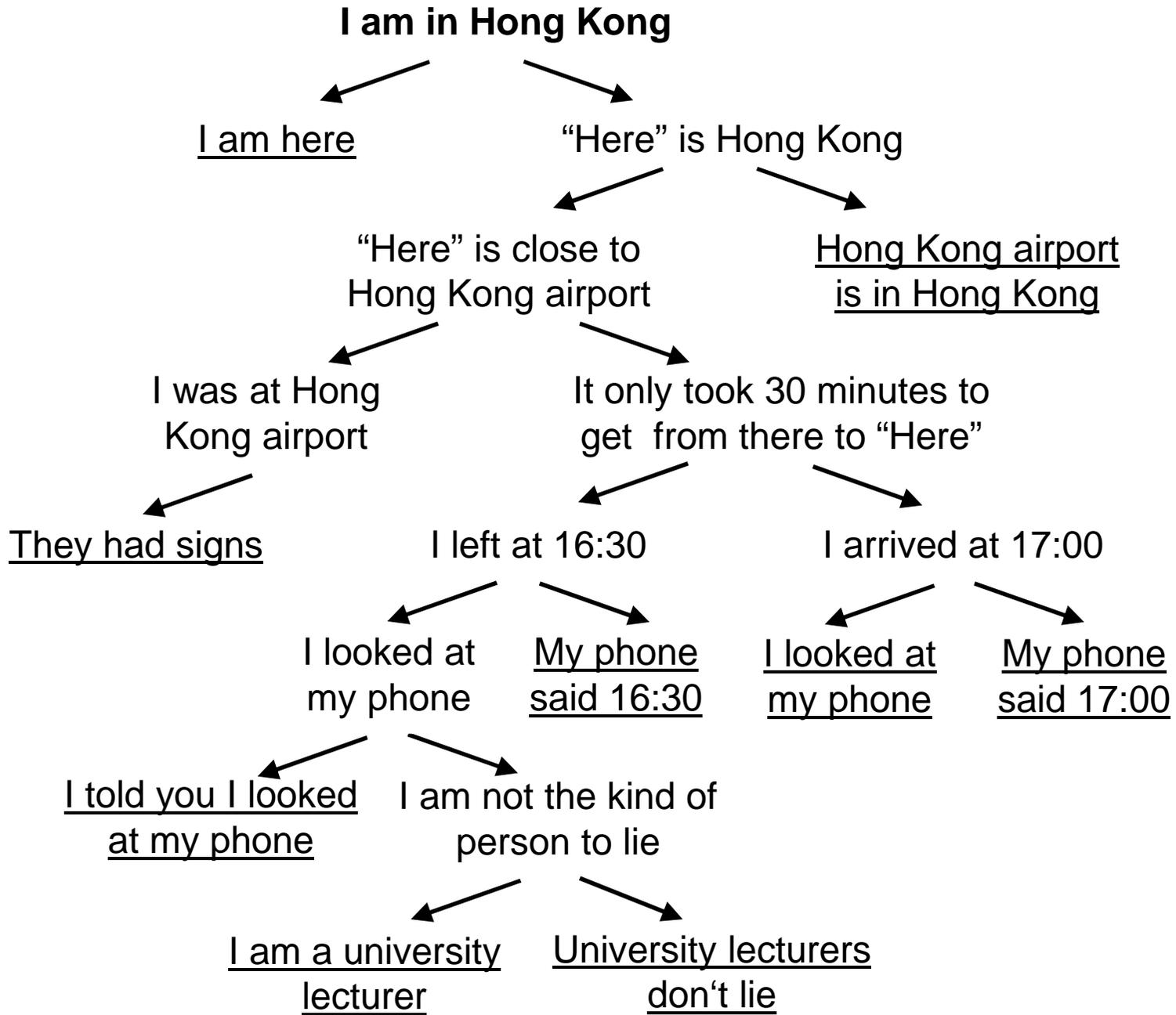
What can be said

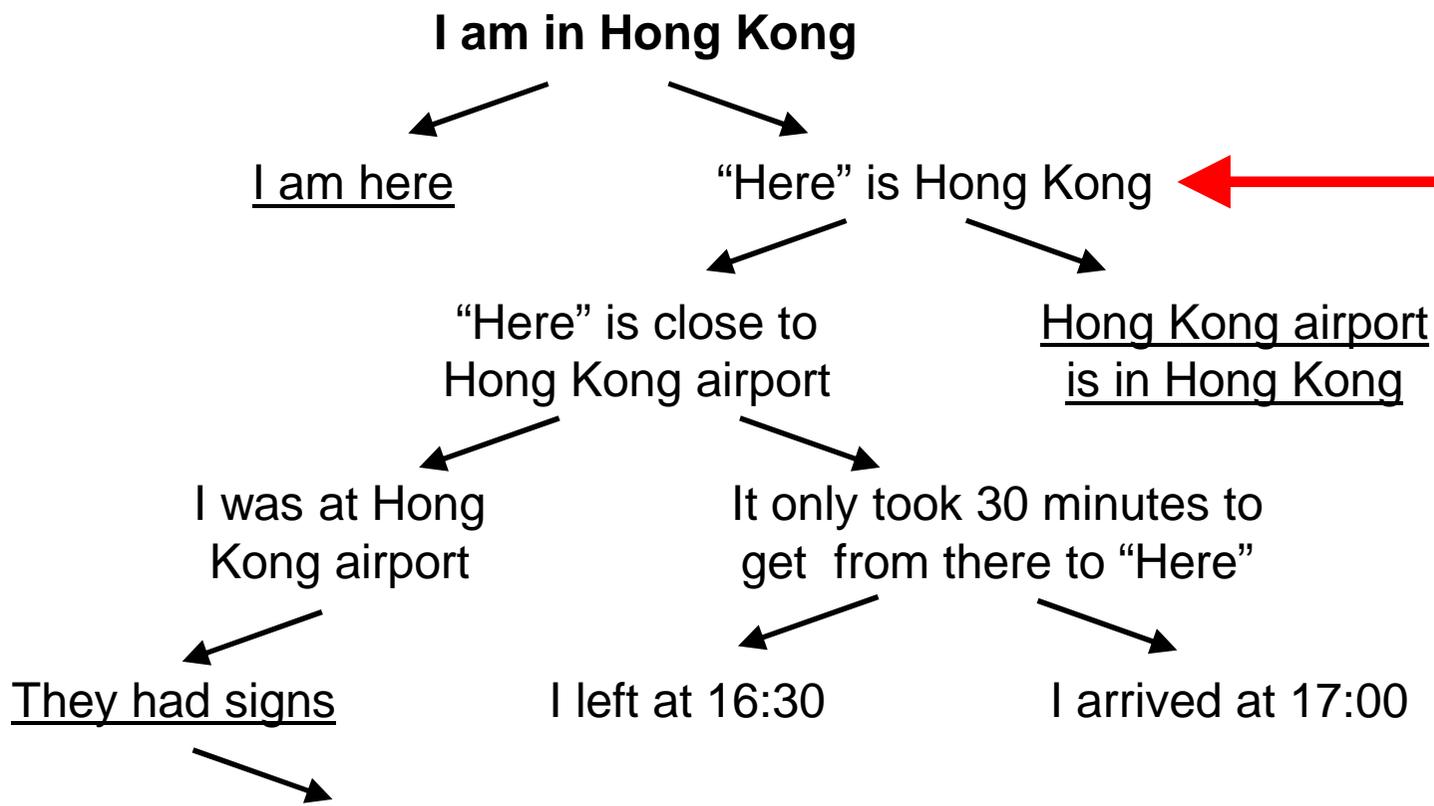
I am in Hong Kong

I Know that I am in Hong Kong

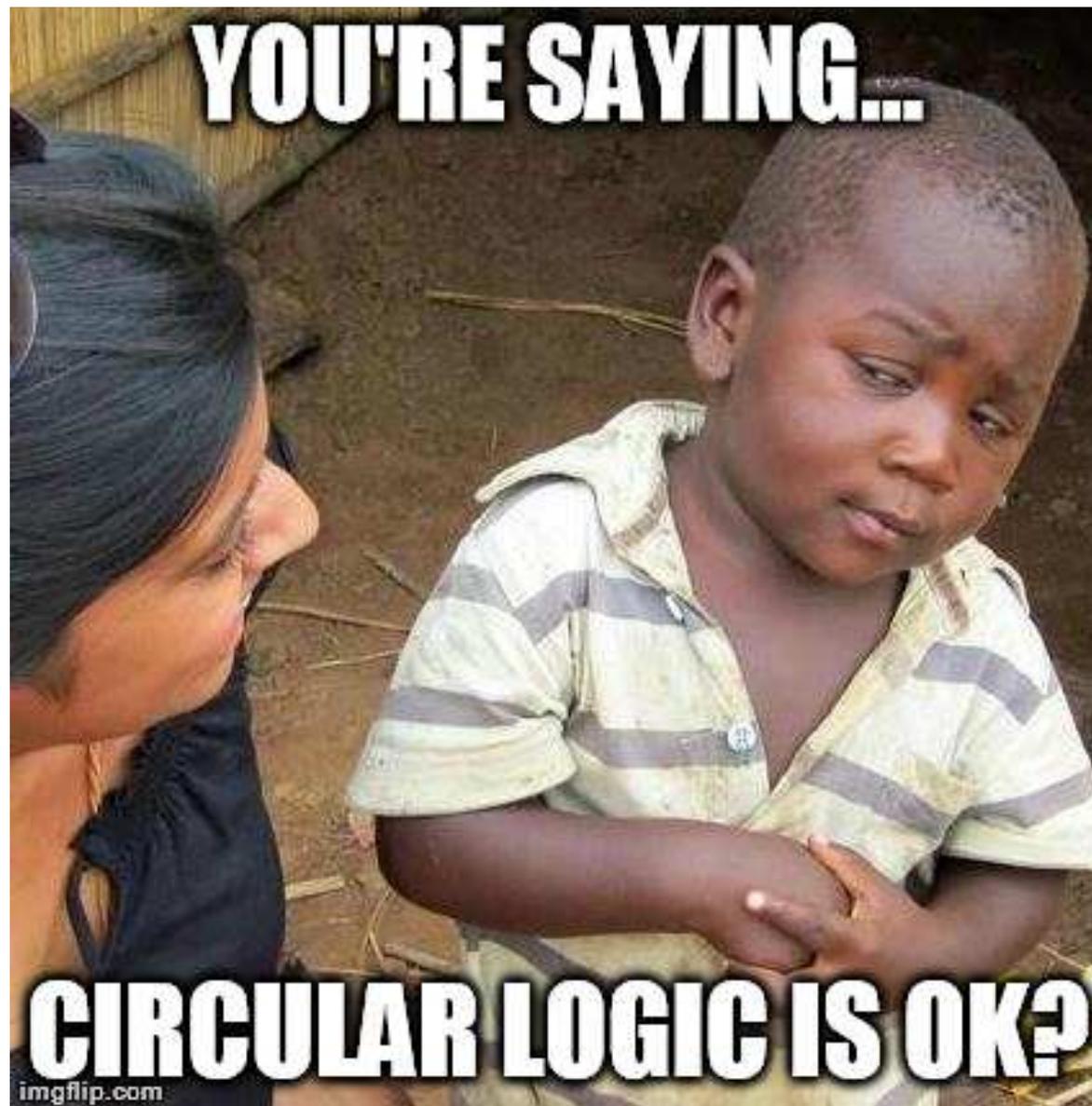
I am Certain that I am in Hong Kong

It is True that I am in Hong Kong





Coherentism



Two Stories

University
lecturer

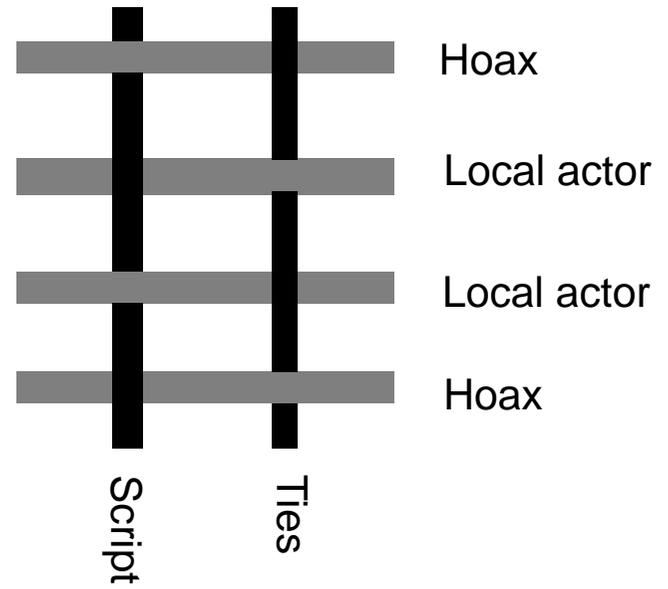
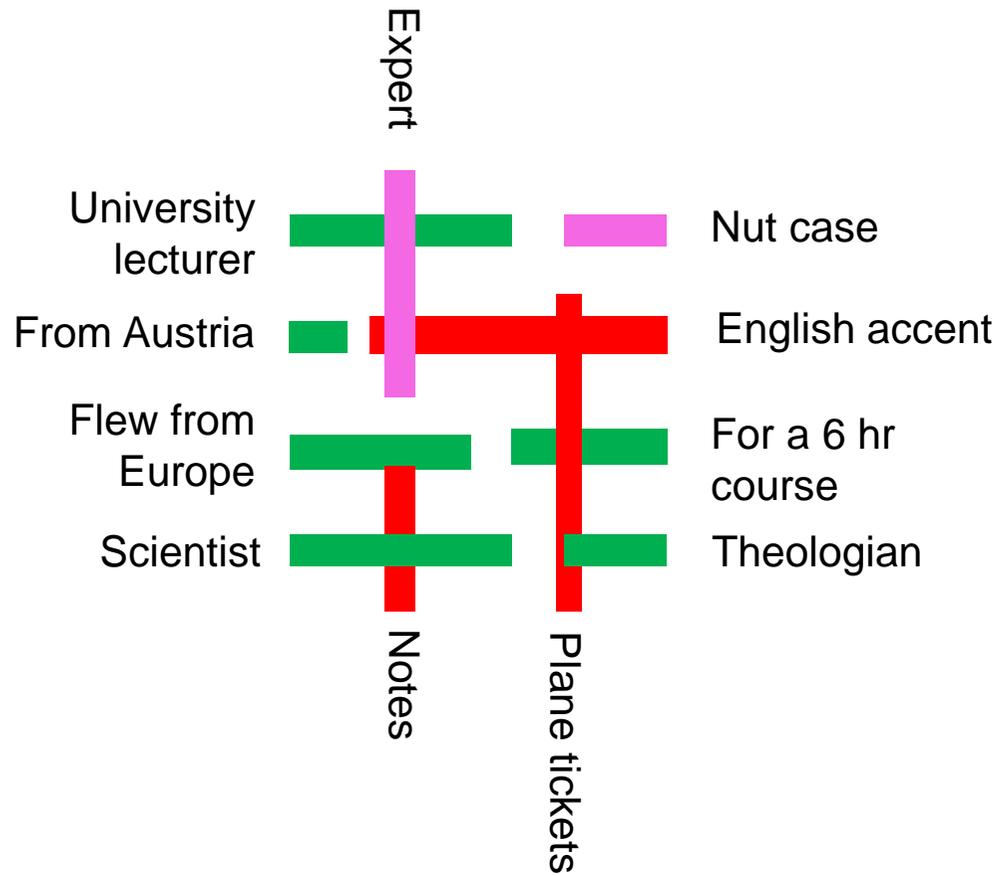


Nut case



Hoax

Two Stories



What can be said

Foundationally

I am in Hong Kong

I Know that I am in Hong Kong

I am Certain that I am in Hong Kong

It is True that I am in Hong Kong

Coherently

I am in Hong Kong

I know that I am in Hong Kong

I am certain that I am in Hong Kong

It is true that I am in Hong Kong

What can be said

Know

Certain

True

know

certain

true

Summary

- People can (and do) make different assumption about what is sensible.
- Different assumptions dictate some of the conclusions which can be drawn.
- Foundationalism sets the bar high for Knowledge, and misses it.
- Coherentism sets the bar low for knowledge, and clears it.