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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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.

\[ v_{f,1} = 0.2 \text{ m/s} \]
\[ m_1 = 0.16 \text{ kg} \]
\[ E_k = 0.003 \text{ J} \]
\[ v_{f,2} = 3.8 \text{ m/s} \]
\[ m_2 = 0.16 \text{ kg} \]
\[ E_k = 1.155 \text{ J} \]
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 +
Avalanches are not reducible

\[
\begin{align*}
\text{Science cannot talk about avalanches} \\
\text{Science does not only work by reduction}
\end{align*}
\]
Methodological Reductionism

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

ONE DOES NOT SIMPLY

REDEFINE "SCIENCE"
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

+ Avalanches are important

There are important things that science cannot talk about

Science works by reduction

+ Avalanches are not reducible

+ Science can talk about important things

Avalanches are not important
Methodological Reductionism

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

Science works by reduction
+ Avalanche are not reducible
+ Avalanches are important

There are important things that science cannot talk about

Science works by reduction
+ Avalanche are not reducible
+ Science can talk about important things

Avalanches are not important
Methodological Reductionism

The proper approach in scientific investigation is to reduce the object to its parts and understand the parts. **not always**
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
I am in Hong Kong

I am here

“Here” is Hong Kong

“Here” is close to Hong Kong airport

Hong Kong airport is in Hong Kong

I was at Hong Kong airport

It only took 30 minutes to get from there to “Here”

They had signs

I left at 16:30

I arrived at 17:00

I looked at my phone

My phone said 16:30

I looked at my phone

My phone said 17:00

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
I am in Hong Kong

I am here

“Here” is close to Hong Kong airport

“Here” is Hong Kong

I was at Hong Kong airport

It only took 30 minutes to get from there to “Here”

They had signs

I left at 16:30

I arrived at 17:00

I looked at my phone

My phone said 16:30

My phone said 17:00

I told you I looked at my phone

I am not the kind of person to lie

I am a university lecturer

University lecturers don’t lie
I am in Hong Kong

I am here

“Here” is close to Hong Kong airport

I was at Hong Kong airport

It only took 30 minutes to get from there to “Here”

They had signs

I left at 16:30

Hong Kong airport is in Hong Kong

I arrived at 17:00
Coherentism

YOU'RE SAYING...

CIRCULAR LOGIC IS OK?
Two Stories

University lecturer

Nut case

Hoax
Two Stories

For a 6 hr course

Flew from Europe

English accent From Austria

Nut case University lecturer

Scientist Theologian

Local actor Hoax

Plane tickets Ties

Script

Notes

Expert
<table>
<thead>
<tr>
<th>What can be said</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foundationally</strong></td>
</tr>
<tr>
<td>I Know that I am in Hong Kong</td>
</tr>
<tr>
<td>I am Certain that I am in Hong Kong</td>
</tr>
<tr>
<td>It is True that I am in Hong Kong</td>
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<tr>
<td><strong>Coherently</strong></td>
</tr>
<tr>
<td>I know that I am in Hong Kong</td>
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<tr>
<td>I am certain that I am in Hong Kong</td>
</tr>
<tr>
<td>It is true that I am in Hong Kong</td>
</tr>
</tbody>
</table>
What can be said

Know
Certain
True

know
certain
ture
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.