

Belief in Science and Religion

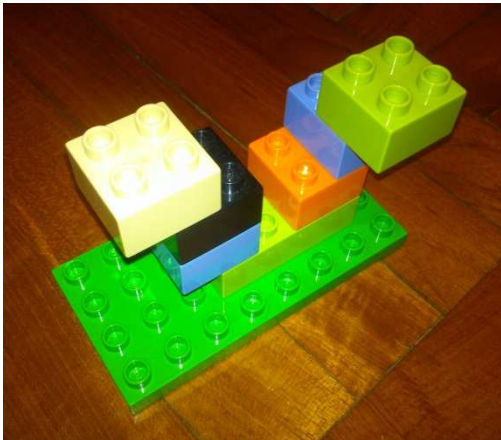
Lecture 3: Putting the Bits Together



University of Hong Kong
24th January 2014
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Foundationalism

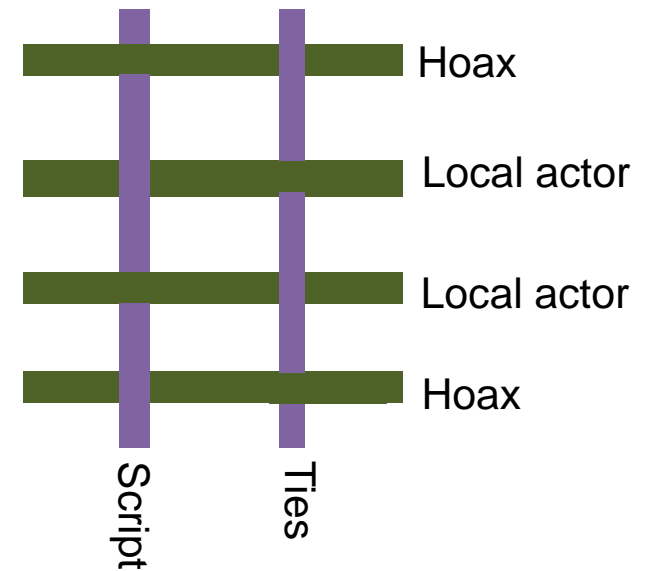
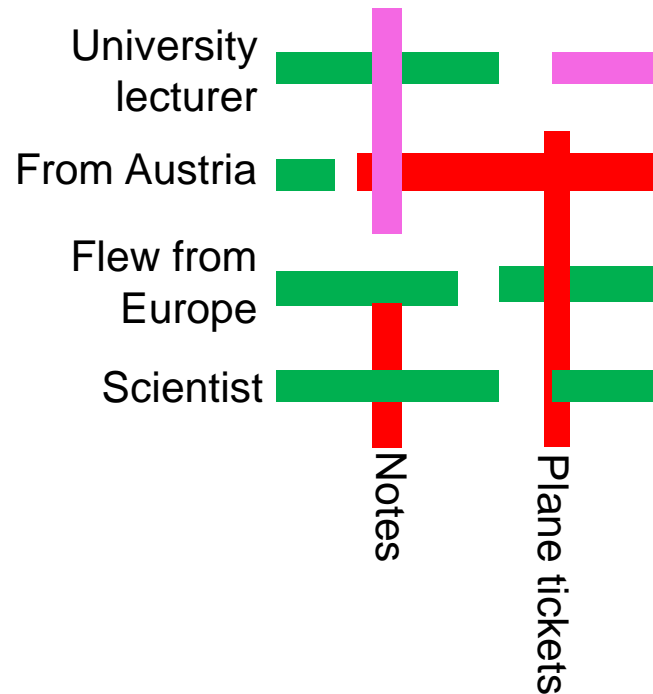
Any statement must be justified by a more basic statement, or be properly basic itself.



Knowledge, Certainty, Truth

Coherentism

The story basically hangs together.



knowledge, certainty, truth

What Science is Not

~~Universal~~

~~Explanatory~~

~~Deductive~~

~~Predictive~~

~~Certain~~

~~Unifying~~

~~Falsifiable~~

~~Consistent~~

~~Reproducible~~

~~Progressive~~

What Science Is

Applied:

Science works because
if something works we call it science.

Pure:

Science does whatever is needed
to preserve the claim that
the universe follows rules.

Hard Core

The universe follows rules.

God is good.

Belief in Science and Religion

Lecture 3: Putting the Bits Together.

- **Similarities between science and religion**
- **New kinds of (K/k)nowledge**
- **Differences between science and religion**

What About Scepticism?

“It is wrong, always, everywhere, and for anyone, to believe anything upon insufficient evidence.”

Clifford, *Contemporary Review* 29 (1876) 289

“The scientist tries to rid himself of all faiths and beliefs. He either knows, or he does not know. If he knows there is no room for faith or belief. If he does not know, he has no right to faith or belief.”

Carlson, *Science* 73 (1931) 217

What About Scepticism?

“Credo ut intelligam.”

“Do not seek to understand in order to believe, but believe so that you may understand.”

What About Scepticism?

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“Do not seek to understand in order to believe, but **believe so that you may understand.”**

Polanyi. c.1950

Augustine. c.400

Leaving Your Brain at the Door?

Should you be able to answer?

**Is God is immanent or
transcendent?**

**Why anthropomorphically
personify God?**

What about pantheism?

**How can suffering fit
with an all-loving God?**

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**Is light is a wave or
a particle?**

**Why use a quasi-particle
model of holes?**

What about aether?

**How can quantum foam fit
with a Theory Of Everything?**

Leaving Your Brain at the Door?

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**Is God is immanent or
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**Why anthropomorphically
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**How can suffering fit
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Theologian or Christian?

**Is light is a wave or
a particle?**

**Why use a quasi-particle
model of holes?**

What about aether?

**How can quantum foam fit
with a Theory Of Everything?**

Scientist or technophile?

The Messiah Test

Acts 5:31-39.

Claim: God has exalted Jesus to His right hand to be Savior.

Counter claim: God did no such thing.

Observation: Some time ago Theudas rose up, claiming to be somebody.
He was slain, his followers were scattered and came to nothing.

Reproducibility: After this man, Judas of Galilee rose up.
He also perished, and all who obeyed him were dispersed.

Experiment: Keep away from Jesus' followers and let them alone.

Possibility #1: If this plan or this work is of men, it will come to nothing.

Possibility #2: But if it is of God, you cannot overthrow it.

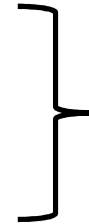
The Messiah Test

Acts 5:31-39.

If this is from men it will come to nothing.

+

2000 years later: 2 billion Christians.



This is not from men,
but from God.



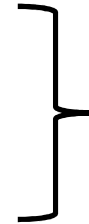
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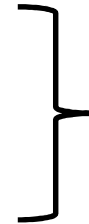


This is not from men,
but from God.

This is not from God but from men.

+

2000 years later, 2 billion Christians.



That's a lot of
misguided people.

Jesus didn't really die.

Jesus didn't really rise from the dead.

Jesus wasn't the messiah.

Jesus wasn't God.

The Reality Test

EPR and Bell.

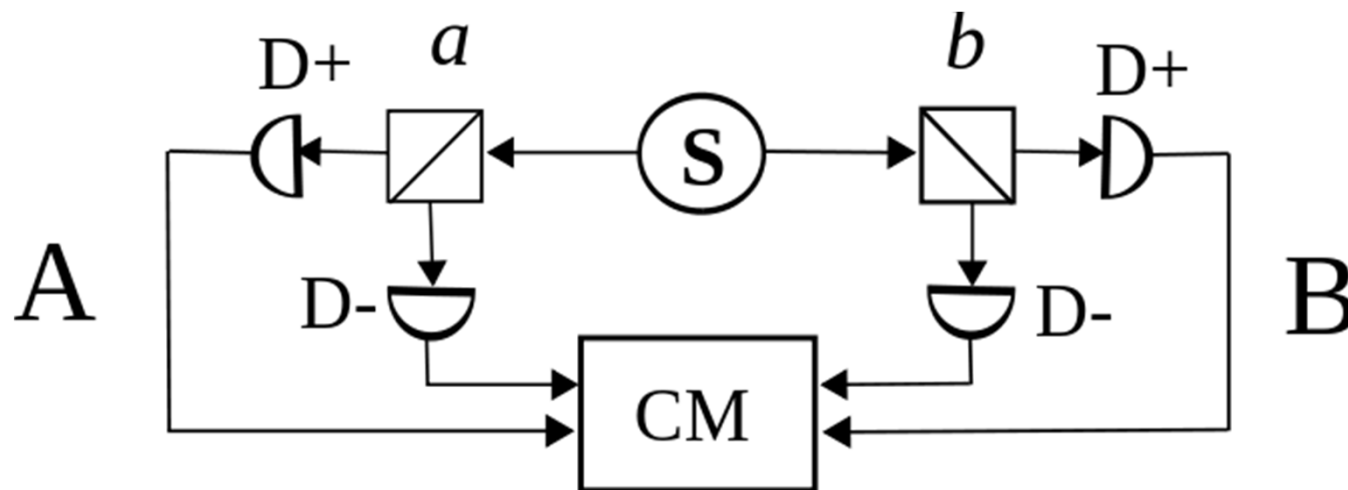
Claim: Quantum mechanics means the universe is weird.

Counter claim: The universe is not weird. Quantum mechanics is wrong.

Experiment: Send entangled photons in different directions and make a particular series of measurements.

Possibility #1: If the world is not weird you will get an answer smaller than 2.

Possibility #2: But if quantum mechanics is right it could be as high as 2.8.



The Reality Test

EPR and Bell.

If the world is not weird then
you get an answer smaller than 2.

+

You get an answer bigger than 2.

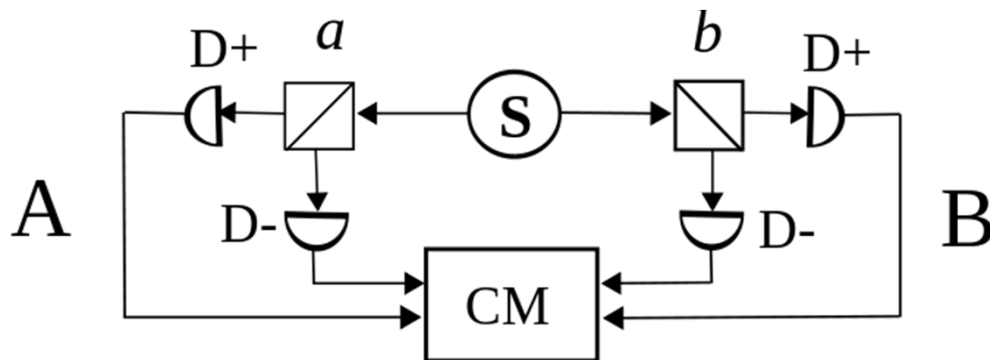
The world is weird,
quantum mechanics is right.

Quantum mechanics is wrong.

+

You get an answer bigger than 2.

There is a loop-hole
we missed.



Experimental error?

Fair sampling?

Locality?

Faster-than-light communication?

Setting selection?

Super determinism?

Contradictions and Corrigibility

Messiah at the end.

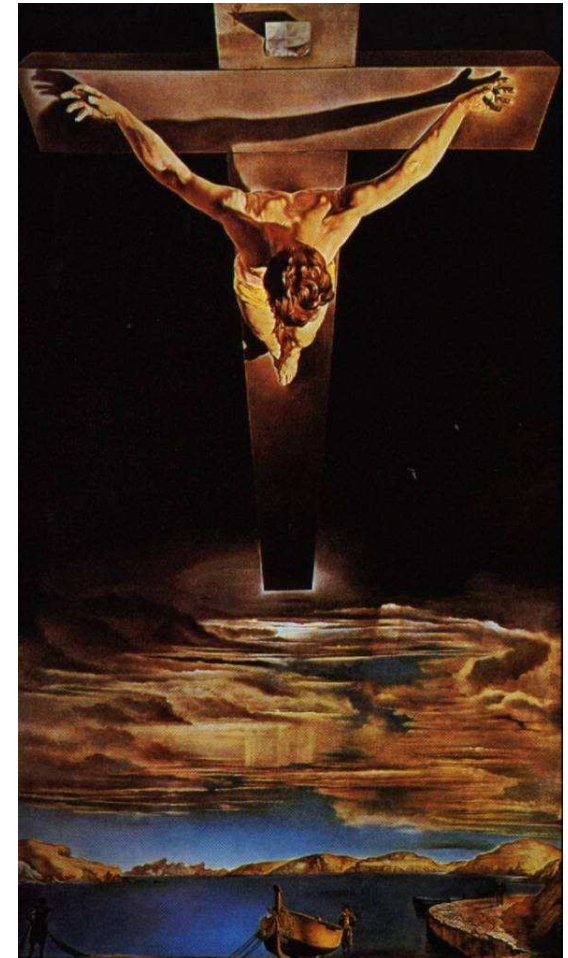
Theories: The messiah will suffer and die.
The messiah will be mighty and reign for ever.

Options: It's all a load of rubbish.
Something else.

Observation: Jesus getting killed really does look like suffering and dying.

Conclusion: The messiah got killed.

Hiding the problems The messiah will come again.
Put the loose ends there.



Contradictions and Corrigibility

Reality at the beginning.

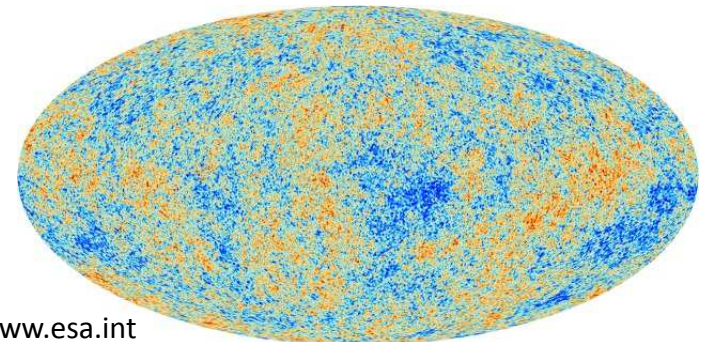
Theories: The universe is expanding \Rightarrow Big Bang.
Matter cannot be created \Rightarrow the universe existed for ever.

Options: It's all a load of rubbish.
Something else.

Observation: The cosmic microwave background really does look like you'd expect from a Big Bang.

Conclusion: Universe is not infinitely old.

Hiding the problems Something very unusual happened in the first 10^{-43} s.
Put the loose ends there.



In the Name of...

Protecting children.

Baptism



The child is a minor.

Child does not
understand.

Done without
/ against consent.

Causes the child pain.

It may harm the child.

**Human Rights'
Abuse?**

In the Name of...

Protecting children.

Baptism



**Human Rights'
Abuse?**

The child is a minor.
Child does not understand.
Done without / against consent.
Causes the child pain.
It may harm the child.

Vaccination



Human Right?

Putting the Bits Together

| | Scientific knowledge | Religious knowledge |
|------------------------------------|---|--|
| Has a “hard core” by blind faith |  |  |
| Takes account of observation |  |  |
| Ignores (reinterprets) observation |  |  |
| Takes account of reason |  |  |
| Ignores (reinterprets) reason |  |  |

Both science and religion entail belief

Is There Any Difference?

“The suppositions underlying our belief in science... appear to coextend with the entire spiritual foundations of man.”

Polanyi

“The separation of state and church must be complemented by the separation of state and science, that most recent, most aggressive, and most dogmatic religious institution.”

Feyerabend

A New Type of Knowledge

Statements you can Know.

“Our statements about the external world
face the tribunal of sense experience not individually
but only as a corporate body.”

Quine

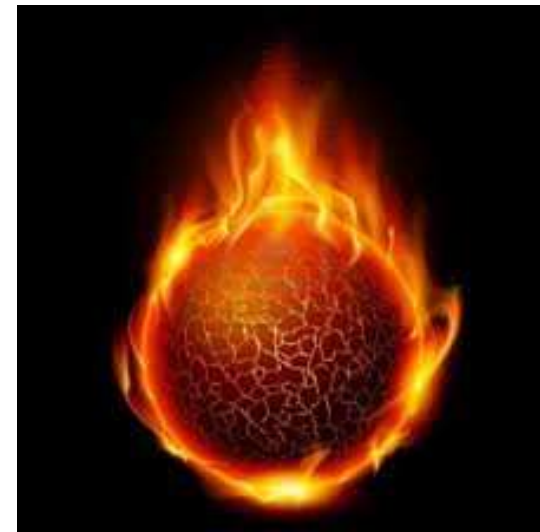
Theory and Experiment

Reason and Observation.

$$1 + 1 = 2$$

Fire is hot.

This wire has zero resistance at room temperature.



Theory and Experiment and...

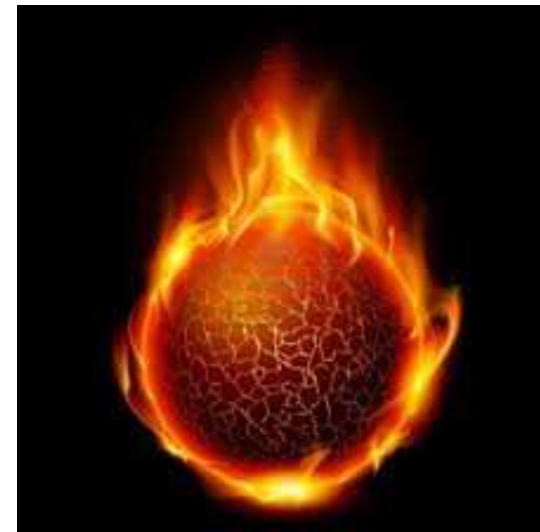
Reason and Observation and...

$$1 + 1 = 2$$

Fire is hot.

This wire has zero resistance at room temperature.

God loves me.



Another New Kind of Knowledge

Reason and Observation and Faith.

| | | |
|-------------|---|-------------|
| Rationality | → | Reason |
| Senses | → | Observation |
| Revelation | → | Faith |

Faith *noun* \ 'fāth \

firm belief in something for which there is no proof / evidence.

Faith is the evidence of things not seen.

Heb. 11:1

Another New Kind of Knowledge

Reason and Observation and Faith.

“The Certainty with which God wishes this word to be received, is that of faith... We declare, therefore, and we continue to repeat the declaration, till the gates of hell re-echo the sound, ‘that the Holy Spirit... is the Effector of that Certainty.’”

Armenius (1529)

Faith *noun* \ 'fāth \

firm belief in something for which there is no proof / evidence.

Faith is the evidence of things not seen.















Heb. 11:1

Knowledge or knowledge?

Duhem Quine hypothesis.

- For any finite set of observations or statements there exist an infinite number of theories with which they are entirely consistent.
- It is not possible to Know for Certain.
- Certain Knowledge would take a miracle.

Putting the Bits Together

| | Scientific knowledge | Religious knowledge |
|-------------------------------------|--|---|
| Has a “hard core” by blind faith |  |  |
| Takes account of observation |  |  |
| Ignores (reinterprets) observation |  |  |
| Takes account of reason |  |  |
| Ignores (reinterprets) reason |  |  |
| Takes account of faith |  |  |
| Capable, in principle, of Knowledge |  |  |

Summary

- Taken naturalistically, science and religion have very similar tools, which they use in very similar ways.
- Both science and religion require belief.
- There are kinds of knowledge which are available to science (as it is currently understood).
- Taken supernaturalistically, faith adds to what can be known by reason or observation.