

READING – Romans 1:18-27

Real machete work today

Come across an exotic species – v. common in Paul's theological world, somewhat endangered today

Belief in God as creator – Paul merely assumes it here (v. 20)

Belief that there is a God-given order to the cosmos – basis of moral behaviour, & specifically in the realm of sexual ethics

DANGER – HERE BE DRAGONS!

Pitfalls / landmines for us if we are not careful

- ❖ these issues divide Christians
- ❖ they are a major block to evangelism among non-believers (credibility & bigotry)
- 'Christians do not have the right to fight' (with each other about these issues!)

SCIENCE & FAITH

Ortberg – God is closer than you think

Different pathways to encountering God

Mine – intellectual, contemplative & creation

*O LORD, our Lord,
how majestic is your name in all the earth!
You have set your glory
above the heavens.*

...

When I consider your heavens, the work of your fingers, the moon and the stars, which you have set in place,

what is man that you are mindful of him, the son of man that you care for him?

...

O LORD, our Lord, how majestic is your name in all the earth! (Psalm 8)

- the separation of the Science & Faith – begun by philosophers (Descartes, Hume, Kant) not scientists – is a tragedy
- historically, scientists saw their work as exploring what God had made
- 'The works of the Lord are great, sought out by all those who take pleasure therein' (inscription, Cavendish Laboratory, Cambridge)
- many scientists today are committed Christians
- we ought to be praying for and supporting scientists (Attenborough – hate mail)
- two science myths

science is fixed (beware the popularisers)

science is neutral

'CREATION'

Christians differ in their views – essentially two positions (challenges to both)

6-Day 'young earth'

- this is not 'the main thing'
- beware its impact on your evangelism (none of the so-called 'great arguments' tends to win souls for Christ)
- hate mail (David Attenborough) & placards
- the bible's own understanding of time – 'With the Lord a day is like a thousand years, and a thousand years are like a day' (2 Pet 3:8) 'the year of the Lord's favour' (Lk 4:19)

God created the world but used evolution to do it

- "Gen 1-3 is not a science manual." No, but it is self-consciously written as history
- Evolution's main tenet is 'chance'
- Evolution insists that human beings developed 'by chance' from apes – this cannot be consistent with what the Bible teaches about humans as bearing God's image
- Adam & Eve were real historical figures (thankfully, science has proved that)
- 'Ah, but that's impossible ...'

So let's look at one of those sciences myths in detail – 'Science is fixed'

Science is a constantly shifting ground of theories which best fit the observations being made about whatever subject is in question

More science delves, particularly in the area of 'Creation', the more complex and resistant to comprehension our Universe becomes

Dr Kathy Romer, astrophysicist specialising in the study of Galaxies –

'Everything we've learnt / gathered is just a theory and it might well be wrong – the fun is in the chase; and the greatest thrill of all would be to prove something wrong'

A brief overview of Cosmology ...

We all know how scientists believe the Universe began – right?

Big Bang ... **theory**

How do they know? Science is about observation

Trouble is, can't readily observe an event believed to have taken place 13.7 b years ago

Scientists have been able to photograph light from the v early Universe (Cosmic Microwave Background = CMB) Afterglow from the heat of the BIG BANG itself

But most cosmology depends upon maths – the ability of human brain to translate physical observation into math equations. Initially, looking at now and extrapolating forwards

Last 50 years or so, looking backwards

Called the Standard Model – in essence a mathematical description of the entire history of our Universe from the very first moment all the way across 13.7 b years to today.

A problem

Trouble is that the Standard Model runs into its first major flaw in the first quadrillionth of a second after the BIG BANG.

BIG BANG can't explain the Universe as it is – any explosion leads to a very patchy result – heat and cold together

Our Universe is uniformly neat, smooth and at a constant temp (no less than 1 10,000th of a degree difference wherever you look)

This has been known for over 40 years

Scientists are v. pragmatic people – rarely dismantle a theory – prefer to patch it.

Prof Alan Guth, Prof of Particle Physics at MIT, proposed Inflation 1980

Solves the problems of the BIG BANG – Inflation takes over producing a uniform Universe

Prof Pedro Ferrera, Cosmologist from Oxford

*don't know why / what drove the Universe to inflate
most basic aspects of inflation cannot be explained
theory can't say what actually caused it*

Max Tamar, Prof of Physics at MIT

Would have needed a force far more powerful than has ever been seen. I don't believe we have the final truth

Guth himself

'not anything any of us working on would say we know for sure – a theory, a proposal

Another problem

Galaxies aren't behaving way they should

Disobeying Newton's laws of physics – stars on edge of galaxies should be spinning slower than ones at centre: in fact, they're all spinning at the same speed

Should lead to disaster across the Universe

To make galaxies work the way laws of physics say they would, Cosmologists needed more matter to create extra gravity

Couldn't find any, so decided to invent some

Prof Carlos Franck, Durham proposed '**dark matter**'

Another problem

Dark Matter creates enough gravity to explain movement of galaxies

But creates another problem

The Standard Model dictates that Inflation must slow and eventually stop – pull of gravity from all the matter (incl. Dark Matter) in the Universe should be acting as a brake

10 years ago, Cosmologists discovered the reverse is happening – Universe is speeding up

Some now say the BIG BANG has never stopped

A new force was needed to explain this continued expansion – so, '**Dark Energy**' was invented

What is it? Romer –

'I've no idea. Hope it goes away, I don't like it

Max Tamar, Prof of Physics at MIT –

Dark Energy = fancy word for our ignorance of what makes up 75% of our Universe

Prof Carlos Franck, Durham –

Very unwelcome actor in cosmic scene

No one asked for it

No one wanted it

No one understands it

Whatever Dark Energy is, it seems to have 'magical properties'

Makes Universe expand

More it expands, more Dark Energy is created to fill gaps

Only one answer – must be something in nothing

Scientists used to think nothing was simplest thing

Now – may be no such thing as a vacuum

Very fabric of space itself isn't empty

Deep space, between galaxies is meant to be perfectly empty – not even tiniest particle

Instead, full of energy

Prof Carlos Franck, Durham –

Unlikely to be solved in my generation

The Standard Model works, provided you have Dark Matter & Dark Energy (even though these are purely hypothetical and remain unproven)

Except ...

Another problem

Dr Sasha Kashlinsky = Cosmologist at Nasa's Goddard Space Flight Centre, studies data coming from CMB

Found something which shouldn't be happening

A nuisance for us, an obstacle

Distortions in light coming from CMB, appear to show movement
Whole clusters of Galaxies moving in an inexplicable way, an area of space roughly 1 billion light years across, being pulled at astonishing speed to one single point
Greatly puzzled us – sat on it for a year

Kashlinsky proposed a new force, '**Dark flow**'
Cause? A new unseen force which could cause dark flow

Theory – another Universe, which exists outside our own
Very far beyond the cosmological horizon

Our Universe only part of a larger whole
Predicted by Guth's theory
Inflation never ends completely
Where it ends, a Universe is formed, but elsewhere it carries on & repeats

Multiverse – pocket Universes all over

Challenges the fundamental laws of physics
Even questioning whether speed of light might not be constant
'Raise the speed limit' (if you do that, estimates for the age of the Universe ...)

Franck –

the work of cosmology is a struggle to explain the unexplainable – science's explanation for creation is a powerful tale built on mystery

Just like Genesis ...

And he also made the stars ... (Gen 1:16)

*O LORD, our Lord,
how majestic is your name in all the earth!
You have set your glory
above the heavens.*

...

When I consider your heavens, the work of your fingers, the moon and the stars, which you have set in place,

what is man that you are mindful of him, the son of man that you care for him?

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For Paul, creation is key

failure to acknowledge God as creator cripples worship
it also leads to an unpicking of the order God has woven into creation

We worship not just a God who is behind all the mysteries of cosmology, but one who entered this particular world to be our Saviour –

Phil 2:5-11 (PL translation)

Just think! He was God,
but, incredible though it sounds,
he gave up his divine rights for us.

Imagine! God himself taking off his royal robes,
stripping himself of all his majesty and glory,
leaving them draped across his golden throne
before stepping out of heaven and into the world he'd created,
stepping into our human form as if donning new clothes.

Just think! The one who designed the human body,
becoming fully human, one of us, one with us.

Imagine! The God whose hand spins stars in space,
whose mind designed the human eye,
opening his own baby's eye for the first time,
focusing on his own tiny human hand.

Just think! The Lord of all becoming a servant,
on a mission to rescue us all,
even though he knew it would cost him his life.
Nothing would stop him in his quest to save us,
not even death, the final human indignity.
In humility, he accepted it, embraced it, even;
and not just any old death, but a criminal's execution,
the slow agony of being nailed to a Roman cross!

For such obedience,
Father God has given him the highest place of honour in the Universe.
He outranks all others;
and the day will come when every part of creation,
including every human being,
every man, woman and child,
will acknowledge that Jesus Christ is Lord;
and give Father God all the credit he deserves.

FOR FURTHER THOUGHT

Rather than questions for discussion (hopefully the talk itself will have provoked plenty of those!) I suggest you make a particular focus of praising God for his goodness and provision in Creation, and for the gift of Jesus – perhaps using my reworking of Phil 2:5-11 as a basis for reflection.

Paul Langham, March 2010