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## WINNING STUDENT ESSAY, 2013

**This edition we are devoting our main article to the winning essay from our 2013 Student Essay competition, "Science, Faith and Truth" by Francesca Day. We will release information about this year's essay competition later in the year.**

### "Science, Faith and Truth"

Most people claim an intuitive understanding of what they mean by 'the truth', and much of human endeavour is driven by a quest for truth, yet its precise nature is hard to define. The Doctrine of the Trinity, Einstein's Theory of General Relativity and the Fundamental Theorem of Calculus are all true, but the meaning of 'truth' is different in each case. To say that a statement is true is to claim that it agrees with some external objective reality. This is clearest for so-called scientific truths, for which the corresponding external reality is the physical universe. However

other objective realities exist and lead to other forms of truth. No-one would dispute the truth of proven mathematical statements (allowing for Gödel's Incompleteness Theorems, which I will discuss later), but these describe a different kind of truth to scientific statements. There is considerable debate as to whether the objective reality of mathematics exists only in our brains, or whether it has its own separate existence [1], though in either case it is clearly distinct from the reality described by the natural sciences. By his very nature God, who is also truth, is over and above all other domains and interacts with all other activities, including those which we cannot begin to conceive. As we read in the First Book of Kings "But will God indeed dwell on the earth? Behold, heaven and the highest heaven cannot contain you; how much less this house that I have built!" [2].

Science holds a special place in our quest for truth; maybe because observers tend to agree on the fundamentals that are shared by scientific and mathematical truths. While scientists



**CiS Northern Conference**  
**"Science, Faith and the Public"**

**Saturday 31st May, 2014**  
 Church of St John the Evangelist,  
 Kingston Park,  
 Newcastle upon Tyne



this will go some way to explaining why people experience Him in different ways.

The quest for truth is a fundamental part of our human nature, and has surely brought great humanitarian benefits, but it will never be satisfactorily finished (in this world, at least). As discussed above, some truths are simply beyond our comprehension and even our understanding of science and mathematics is necessarily limited. Gödel's Incompleteness Theorems<sup>[4]</sup> tell us that any formal system sufficiently sophisticated to contain basic arithmetic (such as

the mathematics used in the natural sciences) contains true but unprovable statements; such a system cannot prove its own self-consistency. This limitation places an inherent limit to our understanding of science, which is written in the language of mathematics. We are also part of the truths that we are trying to understand, and we cannot simply step outside the physical universe, or step outside of God, to take a look, because we are part of both. This limits the extent to which we can observe and understand the world around us, and transforms us from mere cosmic observers into human beings with moral and spiritual responsibilities.

may debate the merits of different theories there is usually less disagreement about the observations on which the interpretations are based. Repeatable observations such as "objects fall to the earth when dropped" or "children tend to look like their parents" are uncontroversial. In contrast, mathematical truths are not accessed by our physical senses, but by our 'sense' of logic. However, here again different mathematicians will usually agree whether a given proof is valid or not. This appreciation of the inherent logic of these intuitive truths has facilitated progress in science and mathematics, but it has also led to the view that scientific and mathematical truths are the only forms of truth. Yet, Christians believe that truth extends far beyond what can be experienced with our physical senses and by strict mathematical logic.

So far, I have painted a fairly bleak picture of our chances of accessing any kind of meaningful truths. However, in addition to science, mathematics and natural theology, God has given us revealed theology. In the Bible, God steps in and tells us truths about His nature; the morality He has given us and our own nature and destiny. I find the clarity of the moral law revealed by Jesus particularly striking. The truth of teachings such as "Give to everyone who begs from you, and from one who takes away your goods do not demand them back"<sup>[5]</sup> takes us much further into the love of God than does our instinctive sense of morality alone. Ultimately, we are called to move beyond simply searching for the truth and into a relationship with God.

Throughout human history many people have experienced a sense of God's presence and from this a sense of His moral law. As C S Lewis wrote "Morality, like numinous awe, is a jump; in it, man goes beyond anything that can be 'given' in the fact of experience."<sup>[3]</sup> However, many people have never experienced the presence of God and even among members of the same religion there are substantial disagreements over moral issues, which show little sign of resolution. How then can our spiritual and moral senses provide paths to truth, when there is such disagreement? Maybe we should start by remembering that there are common factors to most religions' concepts and experience of God: God as love; God as creator; God as the source of beauty and morality, and these may outweigh some of the differences. Nonetheless we also remember that God will always be beyond human comprehension, and

Francesca Day has recently completed an MSci in Natural Sciences at the University of Cambridge, and began her DPhil in Theoretical Physics at the University of Oxford in October 2013.

1. Balaguer, M. (1998) *Platonism and Anti-Platonism in Mathematics*. Oxford University Press.
2. *The Holy Bible (English Standard Version) 1 Kings 8:27*
3. Lewis, C. S. (1940) *The Problem of Pain*. William Collins
4. Gödel, K (1962) *On Formally Undecidable Propositions of Principia Mathematica and Related Systems*. Dover.
5. *The Holy Bible (English Standard Version) Mathew 25:40*

### SAD NEWS

We are sorry to record the death of one of our members, Dr Paul Vinall.

### INTERVIEW WITH EMILY STURGESS

In October, Emily took on the role of Development Officer with Christians in Science. She lives and works in Oxford.

#### What is your story so far?

I was raised in Northampton, in a Christian home, and came to have a personal relationship with God in my early teens. I was no 'born scientist', and wanted to

be a marine biologist for many childhood years solely because I thought dolphins were lovely and that the job was synonymous with 'dolphin trainer', not because I was particularly passionate about science. However, through my teenage years, a love of Biology grew and I went on to study Biological Sciences at the University of Oxford. While I was there I helped set up a Christian faculty discussion group for Biologists to tackle some science-faith issues.

Feeling the call to stay in Oxford post-graduation, I was employed for a year as an administrator for Oxfordshire Community Churches, where I had become a member in the Oxford church as a student. I then went on to complete an MSc in Species Identification and Survey Skills at the University of Reading, before coming to work with CiS.

#### What are your major interests outside of work?

I am involved with the student work at OCC, I play the violin in a ceilidh band, and have a love of comedy in all its forms (particularly live). I also have a back-burner interest in Sign Language, having passed BSL level 1 eighteen months ago. I don't tend to demonstrate it in

# ***From Cosmos to Psyche: All Things Hold Together in Christ***

## **Joint conference with ASA and CSCA**

**McMaster University, Hamilton, Ontario  
25-28th July 2014**

CiS is joining with our sister organisations in Canada and the USA to run this joint conference at McMaster University

### **Plenary speakers**

*Megan Best (Newcastle Australia, Bioethics)*  
*Alasdair Coles (Cambridge UK, Clinical Neuroscience)*  
*Bart Nettlefield (Toronto Canada, Astrophysics)*  
*Don Page (Alberta Canada, Physics)*  
*Jeff Schloss (Westmont California, Biology)*

Advance information at [www.asa3.org/ASA/meetings/mcmaster2014/McMasterPromo.pdf](http://www.asa3.org/ASA/meetings/mcmaster2014/McMasterPromo.pdf) or contact [secretary@cis.org.uk](mailto:secretary@cis.org.uk)



public, but I also love looking at moss (which is how studying species identification changes you!)

**Who and what have been the biggest influences in your life?**

My parents have been hugely

important role models - providing me with a loving and supportive Christian upbringing, and a template for living well. They also encouraged me to do the things I loved and excelled at, regardless of whether they were 'masculine' or 'feminine' pursuits. I went to an all-girl's upper school, which certainly helped in that respect. Knowing I could take Maths and Science subjects alongside my English and Music Technology A-levels without feeling in the minority as a girl was hugely influential in the path I took. Sometimes when you're female, Christian and a scientist, it can feel like the odds are against you; but my upbringing has given me great foundations not to be perturbed by that!

I've also been hugely blessed to have great church leaders, both in Northampton and in Oxford, who have inspired me in my science and my faith, and encouraged me to tackle apparent issues head on rather than skirting around them.

**How has your faith helped you as a scientist, or vice versa?**

Honestly, my faith helps me with everything, so it undoubtedly has helped me as a scientist. Specifically, my faith has given me a foundation for learning about what I love, at a time when young adults are ceaselessly encouraged to do whatever it takes to be successful at the expense of being passionate. So often in the bible we are called to engage with God through nature, uncover the mysteries of creation, and steward the world with wisdom. For me, all of those things happen through learning about how living organisms function and interact. Doing my masters in species identification and survey skills was an extension of that: finding

joy in the tiniest mosses and lichens, as well entire ecosystems. I think it's a somewhat circular a question - I delight in nature because I find God there, and I investigate nature because God calls me there. They certainly interlink.

**What challenges have you come across as a Christian and a Scientist (if any)?**

Generally, they've not been huge; but, as a student, I did struggle to resolve what I thought I knew about creation with what I was learning about evolution. It wasn't that I'd been taught that 6-day creation was the definitive option, I just hadn't worked out whether there were any other options, and was quite skeptical. It took a year or so, of little shifts in my theological thinking, alongside huge deepening of my scientific knowledge, to get to a comfortable 'theistic evolution' standpoint. I certainly can't claim to have all of the answers sorted (who can?), but that has been my biggest struggle.

Now, I probably find more opposition among Christians who have issue with evolution than among scientists who oppose Christianity. That can feel worse sometimes, feeling like there's something coming between Christian brothers and sisters, but hopefully we all have grace to bear with one another and work these things through!

**What science-faith resources have you most enjoyed or found most helpful?**

I'm hugely impressed by the websites of BioLogos and The Faraday Institute, as well as our very own CiS website. I love having so many talks and articles available, on such a breadth of subjects.

**What is your role within CiS?**

As Development Officer, my role encompasses linking with students (including organizing the student conference), liaising with and encouraging local groups, publicity and communications, and helping 'develop' how as a group of Christians and scientists we can better engage in our evangelical and scientific communities.

**NEXT ISSUE**  
The next edition of PreCiS will include the conference report from the Student Conference.

## LOCAL GROUP NEWS

If you live somewhere that does not have a CiS local group but you wish it did, please get in touch with the Development Officer, (emily@cis.org.uk) about starting up a new group in your area. There is currently interest in forming a CiS group in Reading, but no-one available to lead it. If you think you might like to lead or be involved, please let us know.

### LOCAL GROUPS

#### ABERDEEN

A new discussion group has recently started up in Aberdeen. If you would like details of meetings please contact David Ely at aberdeenlocalgroup@yahoo.co.uk.

#### ABERGAVENNY

If you would like to get involved with the CiS discussion group in Abergavenny, please contact Dr Huw Morgan at jhcmorgan@gmail.com.

#### BIRMINGHAM

The Birmingham group hosted Michael Poole for an event on 27th January titled 'Science and Faith: Conflict or harmony?' Despite a small audience, the event was interesting and Michael spoke engagingly. If you would like details of future happenings in Birmingham and the West Midlands please e-mail bhamcis@gmail.com or join the Birmingham CiS Facebook group [www.facebook.com/groups/ciscbirmingham](http://www.facebook.com/groups/ciscbirmingham)

#### BRISTOL

Friday 14th March 2014, 7:30pm, Dr Eric Albone MBE will be sharing his visionary approach to science education, drawing on his work with schools in both England and Japan. He is co-founder and Director of the Clifton Scientific Trust, a charity which engages young people with science and its application. Alma Church Hall, 29 Alma Road, Clifton, Bristol BS8 2ES. Contact Tina Biggs for more information (cmbbiggs@googlemail.com)

#### CAMBRIDGE

For details of upcoming events in Cambridge please go to [www.st-edmunds.cam.ac.uk/faraday/Lectures.php](http://www.st-edmunds.cam.ac.uk/faraday/Lectures.php).

#### CENTRAL SOUTH

Recordings of previous events in the Central South group can be found on our webpage [www.cis.org.uk/groups/central-south/](http://www.cis.org.uk/groups/central-south/). If you would like more information about the group please go to our webpage or e-mail Peter May - petergeorgemay@gmail.com

#### DURHAM

Contact Alan Roberts (a.w.roberts@durham.ac.uk) for information about future events.

#### EDINBURGH

Gavin is looking for people to help him run the Edinburgh group. If you would be interested in helping out, or would like more details about the group, please email Gavin Merrifield (g.d.merrifield@gmail.com)

#### GLASGOW

For details of future events in Glasgow please contact Dr Lawrence Osborn on [lawrence@lhosborn.co.uk](mailto:lawrence@lhosborn.co.uk)

#### HARROW

For details of future events in Harrow please contact Revd Lyndon North ([revlnorth@aol.com](mailto:revlnorth@aol.com))

#### IPSWICH

For information about events in Ipswich please contact Dr John Ling ([jjling@btopenworld.com](mailto:jjling@btopenworld.com)).

#### IRELAND

Details about the upcoming events in Ireland can be found at [www.cis.org.uk/ireland](http://www.cis.org.uk/ireland)

#### LEEDS

For information about future events, please contact John Lockwood ([jglockwood1@me.com](mailto:jglockwood1@me.com)) for details of future events in Leeds or to be added onto the mailing list.

#### LIVERPOOL

The Liverpool group resumed their meetings on Wednesday 5th February. They are continuing to use the Test of Faith Materials and are resuming discussions on views of creation based on this from the meetings last year.

The group continues to meet on the last Wednesday of every month in term time at 5.30



pm in the Anglican Chaplaincy, Mulberry Court. Contact Neville Cobbe for more information (Neville.cobbe@liverpool.ac.uk).

### **MANCHESTER**

The Manchester Science and Philosophy group will be hosting Prof David Watts for their event “The Laws of Physics and the Reliability of God” on Wednesday 12th March, at Cafe Muse in the Manchester Museum. Please contact Peter Budd at peter.budd@manchester.ac.uk if you would like more details about the Manchester group, or to be added onto the mailing list.

### **NORWICH**

Please contact info@cis.norwich.org.uk for details about upcoming events in the Norwich area.

### **NOTTINGHAM**

The Nottingham group meets regularly for discussion about science - faith topics. Please contact Geoff Bagley (geoffbagley@me.com) if you would like further information.

### **OXFORD**

CiS Oxford will be holding a joint event with the Ian Ramsay Centre on Thursday March 13th in the Danson Room, Trinity College. Philosopher Professor Hans Halvorson from Princeton will be speaking on “Does the Universe Need God”. The talk starts at 8.30 pm, preceded by drinks at 8.15 pm. For information, contact diana.briggs@wolfson.oxon.org

### **SHEFFIELD**

The Sheffield CiS group meets regularly for prayer and discussion during the university term. For details about happenings in the Sheffield area or to be added on to our mailing list please e-mail shefuni.cisc@gmail.com or join our Facebook group www.facebook.com/groups/shefuni.cisc/.

### **SOUTH WEST**

On the 7th February, the South West group hosted the event “Confessions of a Stem Cell Scientist: Stem Cell Research and Christian Ethics.” with Dr Jon Dawson, Faculty of Medicine, Human Development and Health at Southampton. Their November event with Dr Peter Bussey was also well attended and well received. If you would like

details about future events in the South West, please contact Prof. David Huntley (dhuntley@plymouth.ac.uk).

### **ST ANDREWS**

For more details about events in St Andrews, contact Rebecca Goss at rjmg@st-andrews.ac.uk.

### **SURREY**

On Tuesday 7th May, the Surrey group will host the event “Embryos, Genes & Cells: Issues at the Start of Life”, joined by Prof John Bryant, University of Exeter. 7pm at Christ Church, Purley. Their last meeting in 2013, “Can A Scientist Believe in Miracles?”, with Prof Colin Humphreys, aroused lots of interest and was very well received. For more details about future events in the Surrey area please contact Joy Perkins at joyeperkins@googlemail.com.

### **TYNESIDE & NORTHUMBERLAND**

On 31st May, Tyneside & Northumberland will be hosting the CiS Norther Conference (details on front page). For information from the group in the Newcastle area, please contact Peter Donaldson at peter.donaldson@ncl.ac.uk

### **WEST MIDLANDS**

The West Midlands Group meets infrequently and people should contact Godfrey if they are local and interested at g.n.armitage@warwick.ac.uk There is no meeting currently planned.

### **WORCESTER**

The first two events of the Bible and Science Worcester group were “Where is God When We Are Sick?” with Dr David Webster, and “Is Fracking Good For Us?” with Rev Dr John Weaver. For information about upcoming events, please contact Ann Coyle at ann@thecoyles.freeserve.co.uk.

### **SUBMISSIONS FOR THE NEXT PRÉCIS**

We would love to receive your contributions for the next issue of PréCiS. Please send details of any events, conferences, books and other news you would like included to emily@cis.org.uk.