

Wednesday 22nd March, 2017

Summary: CICASP Seminar 53

Mini-debates: Historical Context (2 of 3)

In this block of mini-debates, we will be re-visiting various historical scientific debates that have now been settled. This week, two teams of students took opposite sides of the historic debate as to whether the solar system is heliocentric or geocentric. At the time that the argument was still on-going, the accepted model of our galaxy was the Ptolemaic explanation, with the Sun revolving around the Earth. Copernicus argued, instead, that the Earth orbited the Sun. In fact, today we know that neither theory was completely correct, for example because orbits are elliptical, not circular as Copernicus maintained. The teams had fun battling it out, with a variety of arguments from each side. There was also a lot of discussion about the current state of scientific knowledge at that time. The discussion was very stimulating.

Wednesday 29th March, 2017

Outline: CICASP Seminar 54

Mini-debates: Historical Context (3 of 3)

Next seminar, we will hold a fun mini-debate re-visiting the 1860 Oxford Evolution debate: a famous argument between Thomas Henry Huxley and Bishop Samuel Wilberforce: the 'Huxley-Wilberforce Debate'. Andrew introduced this topic at the first seminar in this block of three. It was a key debate in the history of science. It occurred after a talk about a very different topic. There was a heated discussion between these two men and their supporters, but we have no definite account of what was actually said. This gives us free licence to use our imaginations as well as our critical thinking skills.

Huxley: A.K.A. Darwin's Bulldog

'For' Darwin's Theory of Evolution

Rev. Wilberforce

'Against' Darwin's Theory of Evolution

Preparation:

You will need to read around the topic to prepare for the next seminar.

Remember to evaluate the source and content of information you find on the web and to think critically.

To make it more interesting, you will not discover which side of the debate you will be arguing until you turn up to the seminar, so be prepared to argue either side.

Seminar this Wednesday:

We will split into two teams; each team will have some time to prepare their argument; we will hear each team's opening statement; then the debate will start!

Mini-debates: Historical Context

1. **Introduction: Embracing the Context** (~~15th March~~)

2. **Copernicus vs. Everyone else** (~~22nd March~~)
Heliocentric vs. Geocentric

3. **Huxley vs. Wilberforce** (29th March)

This block is to encourage you to think about science in a historical context...

- Science does not happen in a vacuum – progress is affected by the time-period in which it is done and the human personalities involved.
- How do scientific ideas come about? Which scientific ideas spread and why?
- Consider that people without the right background knowledge might not recognise the importance/use of new inventions/theories even when presented with them.
- Scientific progress is guided/constrained by the historical context, e.g. current knowledge states, societal trends, values held by the population.