

Press Release: 9 February 2017

THIS HOUSE BELIEVES THE SKY IS THE LIMIT

Opposition 1: John Papantoniou

John Papantoniou, a fourth-year mathematician at Trinity College and a former Union debating officer, began his speech by arguing that space is not good value for money, and that the allocation of resources to space instead of healthcare is a flawed and risky endeavour. He complemented his argument by citing the *Challenger* disaster, the significant resources required, and the high costs of failure. By contrast, he argued that research on the ground is much more accessible and more likely to achieve success more consistently. Moreover, he noted that because of the mystique of space, society looks to fix problems in the cosmos rather than fix things at home. Instead, Papantoniou suggested that it is better to allocate these resources to more pertinent issues at home on Earth. He discussed that the great draw of space exploration is the enormity of the challenges, and the progress of conquering these challenges. However, he believed that this pursuit is blown out of proportion, and that space does not lead to all sorts of associated challenges. Rather, environmental and health challenges are more tangible and more pertinent, and that by investing in space, we are making a trade-off for contemporary generations. Indeed, if people in the future want to have a better quality of life than we have, then we need to invest in improving challenges *on earth* today rather than the “aspirational draw of going to other planets.”

Proposition 1: Dr. Richard Chavez

Dr. Richard Chavez, post doctorate researcher in astrophysics at the Cambridge Cavendish Laboratory, offered five arguments. First, from an existential perspective, he argued that at some point, Earth will not be inhabitable as global warming and wars provide a challenge to sustaining the planet as it is. Thus, we need to think beyond Earth. Second, embracing the scientific argument, he noted that science over the last 500 years has been concerned with the pursuit of the knowledge of the stars, starting with Newton’s ideas of gravity and that this curiosity is fundamental to the evolution of science. Indeed, to understand what is happening with humanity, he argued, we need to understand the stars. Third, from a technological perspective, he recognised that critiques have been made that space exploration is very expensive. However, he argued that space research costs 1/20 of what is spent on the military in the US, and in terms of cost-benefit, investment in space is much better value for money than war, and considerably more peaceful. Fourth, he offered an economic argument by stating that it will be beneficial to extract resources from asteroids and harness the energy of the solar system, including the Sun as

an “absolute energy source for the planet.” Finally, he offered a philosophical argument by arguing that the realm of space has shifted from the religious to the scientific sphere and that the ability to look beyond Earth is what makes us human. Ultimately, he argued that the future of humanity is looking beyond the stars.

Opposition 2: Kier Murison

Keir Murison, a third-year genetics student, crafted his speech around genetics. He argued that there will be no space travel if we cannot provide simple surgeries, and moreover, the rise in antibiotic-resistant bacteria is scary, meaning that there is a need to focus on this challenge today. He also noted that the myth that science is sexy should be dispelled, because it is nothing like what is suggested in the popular science-based TV shows like *Sherlock* and *Planet Earth*. Murison continued by arguing that there is a significant challenge to secure funding for scientific research and that what is needed from scientific programmes is not inventions for space, but rather developing solutions to challenges such as Alzheimer’s, mental health, and antibiotic-resistance bacteria. These, he continued, are vital to human survival, and without antibiotics, humanity cannot sustain itself. Thus, he found that space travel is concerning – not because it is not fascinating – but rather because it is, whereas more vital issues such as developing solutions to challenging diseases *today* are not.

Proposition 2: Dr. Edward Gillen

Dr. Edward Gillen, a member of the astrophysics department at the Cambridge Cavendish Laboratory argued that we should go into space as quickly, and as in full, as we possibly can, because it will help us solve the most challenging obstacles we face as human today. He continued that it is easy to argue that space exploration is an expensive endeavour, but that it is important to think beyond this critique. Dr. Gillen then explored the benefits of space, touching upon climate change’s rapid onset and the importance of satellite development in the 1960s that allowed us to ascertain this information. He noted that Earth does not exist in isolation, and that we need to know “what’s out there.” Dr. Gillen also encouraged the audience to consider the internet and the benefits that it brings to the 3.5 billion people worldwide who are connected to the internet, noting that the way to connect the rest of the population through high-speed internet is via space. Additionally, the technology for a smartphone camera and WiFi was developed for astronomy research. He also responded to an earlier point by stating that resources invested in space exploration permeates into the wider economy and that ultimately, we as humans push boundaries, and “one of the greatest boundaries is space”.

Opposition 3: George Clay

The third opposition speaker challenged the idea that the crew of the *Challenger* died to advance humanity, and that the crew knew that they were in an unsafe environment, illustrating that space travel is not an aspirational idea of discovery and advancement. He also questioned whether it is worth sacrificing a human life to explore what is beyond the terrestrial, and whether humanity could have discovered space-related technologies – such as lasers – in a more efficient manner. Continuing his critique, he challenged the idea that space travel is good value for money, and argued that spending money on the military is a better use of resources than spending money on space exploration. He continued that it is inconceivable that Western powers will stop spending money on the military on the next 20 years or to tax Wall Street to a higher degree, whereas expenditure on space travel can easily be trimmed. Consequently, money can be redistributed in “a more sensible way”. Moreover, he noted that the ostensibly positive rate of return on space programmes is dubious and even if true, that space travel remains a deeply inefficient endeavour. Additionally, he argued that it is easy to manipulate hope about space travel for political mobilisation, and that this is not necessarily a good thing, but rather the manipulation of populations for political ends.

Opposition 3: Matt Hazell

Matt Hazell, a Veterinary Medicine student, argued that the crew on the *Challenger* knew what they were getting in to and that they were proud to make this sacrifice because of the gains that it would make for the world to come. Moreover, he argued that every failure is a rung on the ladder to success, and that space travel is a net contributor to development. He noted that politically, space travel is beneficial as it employs people and improves everyone’s lives in the future, rather than engaging in war by investing more in the military. Countering an earlier point raised by Murison, Hazell argued that from a genetics perspective, *CSI* and *Jeremy Kyle* offer the best examples of the ‘sexy side’ of science, illustrating that scientific exploration is a vital endeavour. Moreover, he declared that humans do not know what they are looking for; therefore, exploring space is vital to examine the history and future of the planet. Invoking Darwin, he argued that humans diversify in order to survive, and thus we need to explore both the Earth and space.

--END--

For footage of the event go to <https://www.youtube.com/user/cambridgeunionsoc>