

**Deloitte.**The Cambridge Union Society
9A Bridge Street
Cambridge, CB2 1UBEmail : pressofficer@cus.org**PRESS RELEASE – 05.02.15****"This House Believes Space Exploration is Worth the Cost"**

On Thursday 5 February, the Union hosted a debate over the motion "This House Believes Space Exploration is Worth the Cost."

Professor Alastair Reynolds opened the debate for the proposition, praising space exploration and the International Space Station. He mentioned that being in space gives one a renewed sense of perspective, as national borders become invisible and "absurd." He referenced missions such as Rosetta as stimulating the general public's intellectual interest. Reynolds next asserted the importance of space exploration in the context of the chemical makeup of comets to the beginnings of life and the universe. He conceded that there were large costs of such missions, asking if any "scientific question" was worth one billion Euros. Reynolds then mentioned his calculation of the cumulative cost of western space travel as less than the cost of a single aircraft carrier. He praised the economic effects of the capital that is spent on space travel, saying that any expenditure flows through a chain of scientists, manufacturers, and labourers.

Dr Bapuji Rao Velagapudi opened the debate for the opposition. He asserted that the costs of space travel are not only economic, but also take human endeavour, ingenuity, and entrepreneurship. He compared the cost of "doing something with not doing something," and rejected the logic of exploring space "because it's there." Velagapudi then referenced several missions and the money they had lost, along with a host of problems found on Earth, including poverty, starvation, drugs, and crime. He continued by saying that managing our own planet is essential. He rejected the use of tax dollars from the common citizen for space investment, questioning their interest in the issue. Velagapudi cited a survey done of what Indian youth thought extra money ought to be used for. The most common responses included the alleviation of poverty, hunger, and lack of housing rather than space travel. He concluded by urging governments to control spending, and to look at the ground rather than to the stars.

Dr. Christine Corbett Moran continued the debate for proposition. She started by reading a quote from Dr. Kalam, former president of India: "As a scientist who has been part of the growth process of space science and technology in India, I find this field of human endeavour has, in the last 50 years, made an unprecedented impact on the life of the human race." She mentioned how many other expenditures undertaken by governments seem less important than space exploration. She asserted the importance of telemedicine, communications, and solar power that could be derived from satellites. Moran also called attention to the importance of space exploration in inspiring the general population through what she referred to as a "ripple effect." She also spoke of the difficult process of trial and error in creating the devices necessary for space travel. Next, she mentioned the value in international collaboration that is required by large-scale space projects, such as a prospective mission to Mars. To conclude, she asserted the importance of having the ability to ensure human survival in the possible event of a future catastrophe.

Myrto Vlakazi spoke next for the opposition. She first rebutted the inspirational aspect of space exploration as not worth spending money on, given what she perceived as widespread scientific ignorance of largely religious western populations. She advocated funding specific areas of research such as medicine and communications rather than simply hoping for spinoff technology from space exploration. Vlakazi asserted that the development of outer space would, in the long term, benefit the wealthy more than the poor. She argued that money would be better spent lifting a nation's poorest out of poverty. Next, she critiqued the mindset of wealthy nations investing in uncertain endeavours in outer space as too focused on prestige and pride rather than usefulness and utility. Lastly, she rebutted the point on international cooperation by raising the example of Russia's refusal to remain a scientific partner to the United States during its annexation of Crimea.

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Professor Gerry Gilmore closed the debate for the proposition. His first point asserted the superiority of the ESA to NASA. Second, he mentioned the relatively tiny costs of space science. He noted that a multitude of jobs and useful technologies resulted from this relatively small cost—concluding that space investment is efficient and valuable. He next referenced the large questions that space exploration could provide answers to, pertaining to reality and the universe. He also mentioned the spinoff technologies that result from space science investment. Economically, he asserted that for every pound invested in space development provides a return of six pounds. He concluded by reinforcing his points on how space can help us answer important philosophical questions.

Robinson first year **Cammy Mitchell** closed the debate for the opposition. She cited facts on the number of people without clean water and sufficient food, and asserted that it would only take one sixth of NASA's budget to provide Africa with clean water. Mitchell spoke of the purpose the government as to care for the poorest individuals in society rather than to explore space, and advocated using money for purposes such as cancer research instead. Mitchell then called space exploration a remnant of Cold War competition. She concluded by calling investment in space technology unnecessary, undemocratic, and immoral.

Debate Result

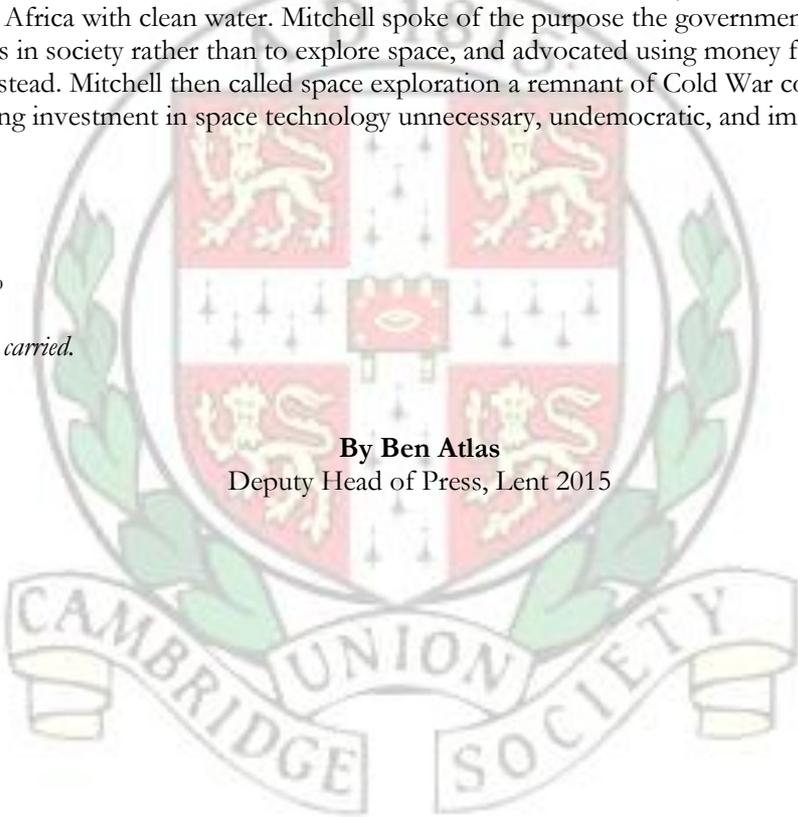
Ayes: 81%

Noes: 6%

Abstentions: 13%

The motion was duly carried.

By Ben Atlas
Deputy Head of Press, Lent 2015



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