Space Humans

By Caitlin Igel

Humans are cosmic dust, formed by fate. The tiny particles seamlessly piece us together, enabling us to fathom outside our current circumstances and effectively act upon our constant desire for discovery. In fact, we are the only known creatures with this astounding aptitude. It is our destiny to venture out into the unknown, to notify the universe of our presence, and to write the ever-changing, previously untold story of all in existence. Acknowledging this fate of exploring space, though, unfortunately proves to be a difficult task for a portion of us who wallow in luxuries and certainty. Some people believe the money spent on space exploration is wasted, as it is not funding necessary projects on earth. However, a deeper understanding of the universe provided by space exploration is extremely beneficial, as long as the government carefully considers the safety of individuals, impact on nations as a whole, and effects on a global scale.

Since people are required to supply the government with taxes from their hard-earned paychecks, many believe that this money should not fund space exploration, as it appears to have no direct impact on their lives. They protest to "leave the money here on earth" because they equate the blasting off of spaceships to the departing of money from the planet (Roberts). Spaceships hold people; spaceships hold equipment, but a spaceship has never been launched as a giant bank vault containing thousands of dollars that are removed from the monetary system. Contrary to this perception, space exploration does not take money away from earth at all. In fact, the money spent on space exploration circulates through the economy identically to other government-funded programs (Livingston). When congress supplies space exploration projects with money, the funds do not simply dissipate into the black, endless vacuum beyond earth. Instead, they take the form of salaries for thousands of engineers, chemists, and astronauts who, in turn, spend that money in a similar fashion to other Americans. The money is indeed left here on earth. Because space exploration functions equivalently to other businesses when it comes to

economic consequences, financial issues should not be considered most important when making choices about studying the expansive universe.

Although money is not an important factor in making decisions about space exploration, the safety of people involved is vital to consider. Space junk, the remains of previously launched spacecraft, can cause serious damage if a collision occurs (Halawa et al.). Mathematical models can predict the path of flying objects with extreme accuracy, but tracking everything within a radius of potential harm, especially traveling at such high speeds, would be like individually feeding every single ant in a colony: dizzying. Besides the physical dangers, astronauts face a plethora of medical consequences. The National Institutes of Health provides an overview of advances in the most prevalent medical issues such as baby health, cancer, and drug addiction. But space exploration is unpredictable. Continuous improvements demonstrate that the United States is well-equipped to provide the necessary medical care for these common conditions, yet the weight-loss and other effects space life can have on astronauts is entirely different. During space exploration, voyagers' bodies take heavy tolls journeying in conditions they were not built for, as they quickly lose weight, even with current technology and prophylactics. Astronauts take huge risks traveling into uncharted areas, and considering their safety during space exploration is notable.

The effects of space exploration on individuals should be carefully examined, but its impact on nations as a whole is even more significant. Space exploration demonstrates that peace among many countries can be achieved and serves as a "model" for earth (Livingston). Not all of the discoveries and benefits of outer-worldly research are scientific and medical advancements, for simply being an example of cooperation among vastly different groups of people is astounding. The type positive interaction vital to successful missions in space is much needed right here on earth, and people have yet to take advantage of it. Though not everyone has the privilege of bouncing around almost weightlessly across the surface of the moon, people can gain new, valuable perspectives from space exploration that promote collaboration instead of being so centered on their own country (Collins). Space exploration highlights the vastness of the universe outside of earth, making the wars and disputes between nations seem trivial compared to supernovae and black holes that could transform the sun into star spaghetti with ease. Through space exploration, people can learn to be more open minded about decisions that

improve relationships among countries instead of automatically dismissing them for not bettering their own lives immediately. The potential enlightenment about international relationships fostered by research outside the planet should definitely be considered when making choices about space exploration.

While consequences for people and countries should contribute to decisions regarding space exploration, perhaps the paramount factor is its adverse effects on the global environment. The launch process into space causes an immense amount of carbon dioxide to be released into the atmosphere, heavily contributing to global warming (NASA). People put so much effort into upgrading cars from being gasoline dependent to entirely electrical powered, yet based on simple calculations, rocket launches produce as much harmful gas as driving fifty cars for an entire year. Without drastically decreasing the carbon footprint of space exploration, the newfound knowledge and wisdom is not worth harming our own planet. Therefore, the adverse environmental impact should be carefully discussed prior to embarking on space exploration missions. In addition to the destructive effects on earth, humans' tendency to not clean up after themselves has made its way off the planet. Currently, there are over 8000 man-made objects floating around in space, with more added after every launch (Halawa et al.). Pollution evidently has unfavorable consequences on earth, and adverse problems could arise if its long term impacts in space are similar. Global contamination with man-made materials has caused the extinction of hundreds of species, and affecting space in a similar fashion would potentially destroy the very information we hope to discover before we have the opportunity to do so. If environmental issues for both the globe and outer space are not considered, space exploration would altogether be futile.

Space exploration's economic impact is not a primary issue when making decisions concerning venturing into the cosmic realm, but considering its effects on individuals, nations, and, most importantly, the globe is vital. Suppose we are not cautious. Suppose we remain incognisant of space exploration's effects. The space around earth becomes so junk-filled that it is clearly visible from the planet. Tensions between countries rise as they debate a solution to a problem that should not have existed in the first place. Every probe and satellite launched crashes into a pre-existing object immediately, removing all hopes of further space exploration. Therefore, to continue the mission of contributing to our limited knowledge, we must ensure a

different outcome. The universe holds endless mysteries, begging to be uncovered. So, my fellow space humans, let us accept our fate.

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