SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1) Lift-Off - Secondary Space Education (2)

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THE SOCIETAL EFFECTS OF PHYSIOLOGICAL CONSEQUENCES OF SPACEFLIGHT: HOW OUR VISION DEFINES US

Abstract

Astronauts experience degradation of eyesight during spaceflight, causing additional effects than purely physiological. Vision does not only depend on the optical structure of the eye, but also on the neural networks that analyse patterns and translate input for the brain. Does the way Astronauts see themselves change the in the way they view themselves, crewmates, and their environment? In this paper, a high school student details a larger vision of the impact of spaceflight, forcing us to question the sense most take for granted, and applies this consequence of microgravity to future societies on long duration spaceflights and future colonies. How will space travel affect our vision as a society. Will we choose to design technology to view different wavelengths of light to fit our environment? By studying such questions involving the evolution and function of the human eye on Earth, we can better understand how the eye might evolve and affect us differently in a novel environment.