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Rethinking the Practice and Rhetoric of Planetary "Colonization" from an Astrobioethics Perspective

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The words and attitudes we take into space are as important as the materials we launch off Earth. In this presentation, we thoughtfully critique the attitude and language of "colonizing" outer space environments on the basis of ethical reasoning [1]. "Colonization" is a commonly used term—in academic, media, policymaking, and industry settings alike—for describing the human habitation of extraterrestrial environments. Recently, a wide range of authors have critiqued this term for its historical and ethical baggage: colonial attitudes toward space exploration will perpetuate unjust and pervasive hierarchies off Earth. Others might counter these concerns of injustice by claiming that it is impossible to commit the sins of colonization in space because there are, as far as we know, no Indigenous people to colonize on nearby planetary bodies. Here, we navigate this debate through appeal to an astrobioethical framework [2] that recognizes the multiplicity of moral value to add weight to the case for decolonizing the language, intentions, and activities of space exploration. While it may be true that the Moon, Mars, and other extraterrestrial locales are devoid of both humans and life in general, it does not follow that these environments lack any kind of moral value. Nor does it follow that the moral value of lifeless worlds must always yield to human objectives and desires. Thus, recognizing the multiplicity of moral value reveals how attitudes of coloniality can cause us to wrongly treat morally valuable entities and systems, on Earth and in space, regardless of their status as living, sentient, or rational. Through careful examination of the language we use and the attitudes we choose, we can fruitfully reimagine our relationship to extraterrestrial environments and chart an ethical future in space. We hope that this contribution not only shapes the future of space exploration but also improves the way we discuss, appreciate, and interact with environments and phenomena of significant innate, relational, and systemic value here on Earth.

[1] Haramia, Laflèche, De Marines, and Wong (in review) *Earth Science, Systems and Society*

[2] Haramia, Laflèche, De Marines, and Wong (2025) *Nature*, 643(8071), 332-335