



The Case for Mars:
*A Critical Discourse Analysis on
Human Rights, Borders, and
Privilege*

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Abstract

This thesis is inspired by the lack of academic discourse on human rights aspects of human space settlement. It builds on the ever-growing literature on colonizing Mars and the ongoing public debate on the benefits versus disadvantages thereof. Taking on a critical approach, this thesis opens up a conversation on power, universalism, and legitimacy within space exploration, questioning both the ontologies and epistemologies of human rights when taken out of the context of Earth. The purpose is to analyze society's fascination with outer space and examine our collective assumptions when it comes to the applicability of human rights. The thesis analyses both legal and astronomy narratives on space settlement through the lens of Theories of Ideology, aiming to merge the two discursive threads into a unified narrative. The methodologies adopted throughout the research are literature mapping and critical discourse analysis. The results confirm that the human rights and anthropological aspects of human space settlement are neglected in the existing literature due to the fact that the spacefaring nations see Mars colonies as extensions of their own nations, as opposed to separate entities. While this is further strengthened by the legal regulations set on space exploration, it opposes the public political stance, which claims that outer Space is the common heritage of humankind; therefore, exploring it shall be a joint effort.

Keywords: human mars settlement, Mars, space colonization, human rights, nation-state, ideological narratives, critical discourse analysis

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Acronyms

AI	Artificial Intelligence
CDA	Critical Discourse Analysis
ESA	European Space Agency
ISS	International Space Station
LEO	Low Earth Orbit
NASA	National Aeronautics and Space Administration
NSI	National Space Institute
UDHR	Universal Declaration of Human Rights
USA	United States of America
USSR	Union of Soviet Socialist Republic
UV	Ultraviolet

Table of Contents

Abstract	2
Acknowledgments.....	3
Acronyms	4
1. Introduction	7
1.1 Research Problem, Aims and Questions	8
1.2 Background and Previous Research	9
1.3 Relevance to Human Rights and Placement Within the Field	12
1.4 Ethical Concerns.....	12
1.5 Delimitations	13
2. Literature Overview	15
2.1 Politics and Power	15
2.2 The Nation-State.....	16
2.3 European Expansion.....	17
2.4 Human Rights and Law	18
2.4.1 Human vs Citizen rights	19
2.4.2 Universality issue.....	19
2.5 Relevance to the Case of Mars	20
3. Theory	21
3.1 Theories of Ideology.....	21
3.1.1 Ideological State Apparatuses.....	22
3.1.2 Hegemony and Discursive Change.....	23
3.1.3 Socio-cognitive Structures of Ideology	24
3.2 Case for Mars: An Ideological Endeavour?	25
4. Methods and Methodology	26
4.1 Briefly on Qualitative Multimethod Framework.....	26

4.2 Review as a Method	27
4.2.1 Literature Mapping Strategy	27
4.3 CDA.....	28
4.3.1 CDA Strategy.....	29
4.4 Method Limitations, Reliability and Validity	31
5. Analysis.....	31
5.1 Astronomy Literature	32
5.2 Legal Literature	34
5.3 Conference Proceedings	36
6. Discussion	39
6.1 Houston, we have a problem!.....	39
6.2 An Imaginary Mars.....	39
6.3 The Offworld Colony	40
6.4 The Space Oddity	42
6.5 The Case for Mars	43
7. Conclusions	45
8. References	46
9. Annex	52
9.1 Data Sample of Primary Sources.....	52
9.2 Norman Fairclough’s three-dimensional conception of discourse	53

1. Introduction

In making for ourselves a place to live, we first spread a parasol to throw a shadow on the Earth, and in the pale light of the shadow, we put together a house¹.

What seemed to be a small step for Neil Armstrong in 1969 turned into a giant leap of faith for the rest of humankind, that one day we would venture into the far-away galaxies to perhaps discover the meaning of life as we know it, or die trying. Indeed, the past few years have seen a dramatic increase in efforts to explore outer space and establish a new community on Mars² - the only planet in our galaxy that resembles Earth the most³. However, currently the first association we get while talking about human Mars settlement seems to be the billionaire space race⁴ – Elon Musk, Jeff Bezos and Richard Branson competing publicly as to who will monopolize the untapped space resources first⁵. On the other end of the space discourse, we have state actors, most prominently the National Aeronautics and Space Administration (NASA) and the European Space Agency (ESA)⁶. When it comes to the academic discussions of human space settlement, the sole actors involved in the discourse comprise lawyers specializing in space law and engineers, which remains a point of concern throughout the thesis. This not only shows a severe lack of interdisciplinary academic debate when it comes to the human rights aspects of space settlement but also potentially puts previously

¹ Junichiro Tanizaki, *In Praise of Shadows*. P. 33

² See the following articles as examples: We're already colonizing Mars, by Christopher Schaberg, 2021, *The Slate* (<https://slate.com/technology/2021/03/mars-colonization-is-already-happening.html>), retrieved on May 12th, 2022; Six astronauts on month-long mission in the Israeli desert to prepare for Mars, by Alexandra Vardi, 2021, *The Times of Israel* (<https://www.timesofisrael.com/six-astronauts-on-month-long-mission-in-israeli-desert-to-prepare-for-mars/>), retrieved on May 12th, 2022; Building a new society in space, by Richard Hollingham, 2013, *BBC* (<https://www.bbc.com/future/article/20130318-building-a-new-society-in-space>), retrieved on May 12th, 2022; SpaceX CEO Elon Musk updates Mars colonization plans, by Jason Davis, 2017, *Planetary* (<https://www.planetary.org/articles/20170929-spacex-updated-colonization-plans>), retrieved on May 12th, 2022; How to plan a space mission, by David W. Brown, 2020, *The New Yorker* (<https://www.newyorker.com/tech/annals-of-technology/how-to-plan-a-space-mission>), retrieved on May 12th, 2022; China builds Mars simulation in similar desert landscape to prepare for exploration, by Reuters, 2021, *New York Post* (<https://nypost.com/2021/06/15/china-builds-mars-simulation-base-in-similar-desert-landscape/>), retrieved on May 12th, etc.

³ Weintraub, 2018 p.45

⁴ Billionaire Space Race turns into a public disaster, by Ollie A. Williams, *Forbes*, 2021 (<https://www.forbes.com/sites/oliverwilliams1/2021/12/21/billionaire-space-race-turns-into-a-publicity-disaster/?sh=18b969af5e4d>), retrieved on May 13th, 2022.

⁵ The inside story of how billionaires are racing to take you to outer space, by Christian Davenport, *The Washington Post*, 2016 (https://www.washingtonpost.com/business/economy/the-billionaire-space-barons-and-the-next-giant-leap/2016/08/19/795a4012-6307-11e6-8b27-bb8ba39497a2_story.html), retrieved on May 13th, 2022.

⁶ While NASA is an independent agency under the United States federal government (<https://www.nasa.gov/about/index.html>), ESA is an intergovernmental entity of 22-member states (https://esamultimedia.esa.int/docs/corporate/This_is_ESA_EN_LR.pdf), retrieved on May 1st, 2022

unexplored human rights issues under a microscope, begging the question of how many of Earth's inequalities are to be reproduced in outer Space if we do manage to build a society there. But even more urgently, it forces us to inquire what human rights mean *per se*, where they work, for whom and why.

1.1 Research Problem, Aims and Questions

This thesis aims to examine the dynamics of continuity and shifting discourses from the Cold War era to contemporary times when it comes to human space settlement and how it relates to the core philosophical imperative of human rights protection.

Since the beginning of the Cold War, politicians and policymakers have debated space exploration's purpose and symbolic meaning in terms of opportunities, threats, and risks. The narrative discourses have always pointed toward a more nationalistic approach that was less human rights-based (or universal) and much more heavily reliant on the national security protection and competition between countries. The end of the Cold War did not mark an end to these public debates, however. If anything, more international treaties were adopted to control access to Space and its resources as well as to fast-track the rapidly changing technological advancements in the field⁷. Meanwhile, barely any scholarly work was produced on the sociological perspectives of such a venture.

The text highlights this dynamic, bringing in an interdisciplinary lens and identifying narrative gaps within the legal and sociological literature. This, in turn, allows readers to reflect on how this historic development affected our understanding of not only human space settlement discourse but also seemingly unrelated, otherwise neglected human rights issues.

The thesis is positioned within a deconstructionist tradition of philosophy both theoretically and methodologically; it combines the theoretical framework of Ideology with Literature Mapping and Critical Discourse Analysis as methods to examine

⁷ 1991 marks the end of the Cold War. Since then, two non-binding UN GA resolutions were adopted: Principles Relevant to the Use of Nuclear Power Sources in Outer Space (1992) and the Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefits and in Interest of all States, Taking into Particular Account the Needs of Developing Countries (1996). Furthermore, four re-interpretations of previous UN GA Resolutions were introduced: The Space Benefits Declaration (UN GA Resolution 15/122 of 1996), On Launching State (UN GA Resolution 59/115 of 2004), On Registration Practice (UN GA Resolution 62/101 of 2007) and the Recommendations on national legislation relevant to the peaceful exploration and use of outer space (Resolution 68/74 of 2013). Additionally, a multilateral treaty was signed between the government of Canada, the Member States of the European Space Agency, Japan, the Russian Federation, and the United States of America Concerning Cooperation on the Civil International Space Station in 1998.

relevant document sources to fulfil the aim. Rather than focusing only on policy or sociology, this paper looks at both discourses parallelly as equally relevant for a comprehensive analysis. The specific aim, however, is to demonstrate how the case study of Mars presents a unique metaphor for a sight where human rights concepts can be transposed and discussed from a philosophical point of view.

The overarching research question is as follows: *How Would Human Rights Work Outside of the Context of the Earth?* While attempting to answer this question, the text will also reflect on the following inquiries:

- What human rights narratives are reflected in the space exploration discourse, and how?
- How does the human Mars settlement narrative reflect on the state's realization of human rights?
- And finally, why do human rights matter in the context of Mars?

1.2 Background and Previous Research

Civilization's fascination with outer Space, specifically Mars, can be traced back to the ancient times of Babylon, Egypt, China, Greece and Rome. From as early as 400 BCE,⁸ careful observations were made to track and calculate time and predict astronomical events for religious and political purposes⁹. Ancient Greeks projected many ideas as to what the universe would look like. Epicurus, for one, saw Mars as a planet full of life, inhabited by plants and creatures that were both similar to those on Earth and also different¹⁰. This statement is regarded as one of the earliest discourses on the possibility of extraterrestrial life, which, together with concepts developed by philosophers Democritus and Aristotle, form the idea of the Plurality of Worlds¹¹. Later, religious scholars would draw from the same postulate; some would even argue that the apogee of this belief was when the Italian Dominican friar Giordano Bruno published

⁸ BCE stands for 'before common era', and is the secular alternative for BC, which stands for 'before Christ'. BCE includes everything before the creation of the Gregorian calendar.

⁹ See: All about Mars, NASA Mars Exploration (<https://mars.nasa.gov/allaboutmars/mystique/history/early/#:~:text=In%20the%20earliest%20days%20of%20the%20sky%2C%20unlike%20any%20other.&text=The%20Babylonians%20studied%20astronomy%20as%20astronomical%20events%20such%20as%20eclipses.>), accessed on May 12th, 2022; Ciyuan L. Ancient Chinese Observations of Planetary Positions and a Table of Planetary Occultations, Shaanxi Astronomical Observatory, Academia Sinica, Lintong, Shaanxi, China, 1987.

¹⁰ Epicurus, Letter to Herodotus (<https://users.manchester.edu/Facstaff/SSNaragon/Online/texts/316/Epicurus,%20LetterHerodotus.pdf>), accessed on May 12th, 2022

¹¹ Dick, 1982 p. 13-21

his book *On the Infinite Universe and Worlds*¹², claiming that the glory of God¹³ is exemplified in a plurality of worlds¹⁴, a controversial idea at the time that cost Bruno his life. Indeed, the renaissance-era theologians were averse to the views of Christianity and Multiple Worlds being compatible¹⁵, even more so after Galileo Galilei introduced the telescope in the early 17th century, urging the Roman Catholic Church to abandon the dominant ideology of Ptolemy's Geocentrism in favour of Copernicus's Heliocentrism¹⁶. While this technological innovation placed the concept of Mars from a purely philosophical to metaphysical realm of knowledge¹⁷, the church was not convinced, going as far as condemning and placing Galileo under house arrest for the remaining years of his life¹⁸.

This doctrinal tension between religion and science carried on to the majority of the 18th century¹⁹, slowing down the overall knowledge production about Mars but never actually stopping it. The two centuries that followed yielded a significant amount of information on the physical and geographic features of the red planet, thus firmly transporting the research object into the scientific fields of physics and astronomy²⁰. That which can only be described as wishful thinking justified by science bore new theories²¹ and scientific branches²² until finally, between the two world wars, outer Space also became the subject of international public law. Vladimir Mandl's 1932 treatise titled *Space Law: A Problem of Space Flights*²³ is considered one of the earliest

¹² Giordano Bruno, *De L'Infinito Universo et Mondi*, 1584.

¹³ Meaning the Christian God since the Dominican Order is affiliated with the Catholic Church.

¹⁴ Bruno, 1584

¹⁵ Weintraub, 2018 p. 26-33

¹⁶ Geocentrism argues that the Earth is in the center of the universe and all the planets, including the Sun, revolve around it. On the other hand, Heliocentrism entails a universe model in which the Sun is at the center.

¹⁷ Weintraub, 2018 p. 19

¹⁸ Lindberg & Numbers, 1986 p. 347

¹⁹ American astronomer David Rittenhouse, philosopher and political activist Thomas Paine, and English scientist William Whewell are among the many influential intellectuals of their time who concluded that principles of astronomy, as well as the notion of multiple worlds, could not withstand scientific scrutiny and also posed danger to Christianity (Michael J. Crowe, 1986, *The Extraterrestrial Life Debate, 1750-1900*, p.159). Paine even went as far as claiming that the sheer idea of God creating a plurality of worlds ridicules and diminishes the Christian belief system (Thomas Paine, 1880, *The Age of Reason*, p. 38).

²⁰ Weintraub, 2018 p. 35-45

²¹ For example, in mid 19th century, the Italian astronomer Giovanni Schiaparelli came up with the theory of canals on Mars. While observing the planetary surface of Mars, Schiaparelli noticed what looked like dark lines crossing the continents. They seemed to be connected to other dark areas on the planet, which he regarded as seas and thus the theory of 'Channels' was born (Weintraub, 2018, p. 91). The theory was disproven in the early 20th century.

²² For example, Areology – the study of the planet Mars, stemming from the Greek word Ares (Mars), Areography – the scientific study of the surface of planet Mars (Collins dictionary definition), etc.

²³ Vladimir Mandl, *Das Weltraumrecht: Ein Problem der Raumfahrt*, 1932.

space law books, where he advocated for the conceptual division between the rules regulating spacecraft from those governing aircraft²⁴. Yet other lawyers only became interested in the upcoming field in the 50s, which was primarily motivated by politics, as the early space operations were guided by governmental agencies and the West had just entered the first stages of the Cold War. What really marked the Space Age, however, was the launch of the first artificial satellite into outer Space – Sputnik²⁵ 1 in 1957²⁶, giving the Soviet Union a significant advantage in what we now know started the Space Race.

What followed was the decision that the legal framing of human space activities should become a United Nations matter, leading to the adoption of binding law in the form of treaties²⁷: The Outer Space Treaty of 1967²⁸, The Rescue Agreement of 1968²⁹, The Liability Convention of 1972³⁰, The Registration Convention of 1975³¹ and the Moon Agreement of 1979³². These five documents form the foundation of international space law³³. They also pinpoint the time when outer Space became openly politicized, pitting not just USA and USSR against each other, but what these states represented to their core – capitalism versus communism³⁴. These ideologies deeply marked our collective identities since the end of the Cold War did not technically end the Space Race. Armed with renewed vigour to discover and the newfound motivation to monetize, countries and private actors continue exploring Space, the ultimate mission being Mars settlement³⁵.

²⁴ See: Hobe, 2019, p. 40; Space Law 101: Matthew J. Kleiman, Introduction to Space Law (https://web.archive.org/web/20181204054125/https://www.americanbar.org/groups/young_lawyers/publications/the_101_201_practice_series/space_law_101_an_introduction_to_space_law/) source retrieved on May 13th, 2022.

²⁵ Sputnik means ‘fellow traveler’ in Russian but is also used as a synonym for ‘satellite’.

²⁶ Sputnik 1, NASA (https://www.nasa.gov/multimedia/imagegallery/image_feature_924.html), retrieved on May 13th, 2022.

²⁷ Hobe, 2019 p.42

²⁸ The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

²⁹ The Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space.

³⁰ The Convention on International Liability for Damage Caused by Space Objects.

³¹ The Convention on Registration of Objects Launched into Outer Space.

³² The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies.

³³ Hobe, 2019 p. 41-43.

³⁴ How Imperialism Shaped the Race to the Moon, by Gabrielle Cornish, 2019, The Washington Post (<https://www.washingtonpost.com/outlook/2019/07/22/how-imperialism-shaped-race-moon/>), retrieved on May 13th, 2022.

³⁵ Elon Musk’s SpaceX COO says manned missions will reach Mars by 2030. NASA says otherwise, by Pascale Davies, Euronews (<https://www.euronews.com/next/2022/05/09/elon-musk-s-spacex-coo-says-manned-missions-will-reach-mars-by-2030-nasa-says-otherwise>), retrieved on May 13th, 2022.

Human space exploration and, more specifically, human Mars settlement is a rapidly developing field. Directly after the decision to pursue this research topic, several important news stories came to light: Virgin Galactic completed the world's first fully-crewed space flight in July 2021³⁶, NASA introduced Artemis I, the first in a series of missions enabling humans to explore Mars and the Moon³⁷ and Chloride salt deposits were discovered, pointing to the last stage of liquid water present on the planet's surface³⁸, which is crucial in regards to potentially finding living organisms on what is otherwise considered a dead planet.

1.3 Relevance to Human Rights and Placement Within the Field

Even though the case for Mars opens up an interesting conversation on power, inequalities and borders, it has not yet been discussed through a human rights framework. Therefore, this thesis is motivated by the pressing need to start a critical academic discussion on human space settlement narratives and how they reflect back on the existing disparities on Earth. The 'colonization of Mars' discourse is used as a case study to examine the otherwise neglected human rights issues, such as human vs citizen rights, universality, etc. Therefore, the present work positions itself in an entirely new area of research in order to fill the scholarly gap between legal and technical approaches when it comes to human Mars settlement. It does so by employing an interdisciplinary lens to space exploration, emphasizing a socio-political approach and scrutinizing the embedded public assumptions regarding human rights.

1.4 Ethical Concerns

There are several ethical considerations to this study. Firstly, it is essential to acknowledge that most authors referenced in the text are of western origin, reflecting the thesis's predominant ideological inclinations of white European colonial spirit. Moreover, the majority of cited authors are men, which points to a gender imbalance in

³⁶ Virgin Galactic Successfully Completes First Fully Crewed Spaceflight, 2021, Virgin Galactic (<https://investors.virgingalactic.com/news/news-details/2021/Virgin-Galactic-Successfully-Completes-First-Fully-Crewed-Spaceflight/default.aspx>), retrieved on May 13th, 2022.

³⁷ It is necessary to note, that the mission has been delayed from February 2022 to an undisclosed time. See: NASA's Artemis I mission to the moon has been delayed, by Ashley Strickland, CNN, 2021 (<https://edition.cnn.com/2021/10/22/world/nasa-artemis-i-update-scn/index.html>), retrieved on May 13th, 2022; Around the Moon with NASA's first launch of SLS with Orion, NASA, 2021 (<https://www.nasa.gov/feature/around-the-moon-with-nasa-s-first-launch-of-sls-with-orion>), retrieved on May 13th, 2022.

³⁸ See Leask & Ehlmann, 2021 and Liu, Wu et al., 2022.

knowledge production. While these limitations affect both the ontologies and epistemologies of the space narrative, it also paints an accurate picture of the field as of writing this thesis. Therefore, this study does not claim a comprehensive analysis of international space discourse. Instead, it invites the reader to evaluate the historical developments through a realistic, albeit critical lens, questioning what our current knowledge is based on and which ideologies they represent.

Secondly, I would like to reflect on my preconceived notions about space exploration. When starting the research, I primarily focused on the colonization narratives of Space, questioning the choice of wording and what that meant for the larger public consumption of this information. My view on the matter has not changed when it comes to the choice of wording – colonization carries a heavy historical reminder of power, nationalism and exploitation. Associating space exploration to colonization implies recreating the past international relations systems that stem from imperial values, which, in turn, opposes the narrative of utilizing space resources for the common good of all humanity. This stance could be considered a limitation of the study, as it may have led me to downplay or overlook some of the benefits of the potential human Mars settlement. However, a review of existing literature on the matter convinces me that a critical approach is necessary to the international public discourse.

1.5 Delimitations

Because this thesis is the first scholarly attempt to form an interdisciplinary understanding of the human space settlement, shortcomings such as time limitations are to be expected. Firstly, due to few scholarly references, ideas and theories had to be drawn from various neighbouring fields, such as anthropology, sociology and political theory. This brought a wide variety of human rights issues to light, such as the right to health and bodily autonomy of astronauts, which could not be tackled throughout due to the limited scope of the thesis. Similarly, technical aspects of human space exploration, such as launch systems, propulsion options, use of artificial intelligence (AI) and robots to support missions etc., will not be analyzed as they do not fit into the aims of the thesis.

Secondly, the human Mars settlement is solely used as a precedence to question the otherwise neglected human rights matters further. Although the issues of gender, sexuality, race, ability and nationality are inherent problems within the field, they will

not be discussed in-depth due to limited scope. However, future studies on the matter are highly encouraged.

Finally, a disclaimer: while this thesis may seem to be about the future, it is, in fact, about the present times. What is guiding us to embark on this venture? What anxieties, wishes, and hopes dictate the outcome? I am not interested in investigating what the future will look like; instead, I want to understand and learn what it means for us now.

2. Literature Overview

This chapter proposes a unique approach to literature overview. Instead of analyzing the astronomy and legal literature on human Mars settlement, it addresses previous studies conducted on politics and power, as well as nation-states as the primary power holders and ideology producers. It then connects these topics to colonialism, development narratives and finally, human rights. This chapter also examines the academic literature on human rights criticism, focusing on general areas of concern, such as human vs citizen rights, debates on universality and the territorial restrictions of law's applicability.

Astronomy and legal literature on Mars are treated as historical documents in this paper and analyzed as primary data with reference to the research discussed in this chapter. This interdisciplinary approach helps bridge the knowledge gaps within the human Mars settlement narrative by turning epistemic sources into ontological points of inquiry to produce new knowledge. After all, to answer the question as to how human rights would work on Mars, we must first understand how they function on Earth, which social structures they are a part of, and what issues we are in danger of recreating.

2.1 Politics and Power

One of the dimensions that instil social practices is political power. Political anthropologists use the word 'power' to depict both ideological and material resource attainment, utilization, control and maintenance³⁹. In fact, politics is all about power and domination by attaining goals that are assumed to be in the public's best interest⁴⁰. This process is what keeps powerful in power and helps them 'win out' against those who have fewer resources⁴¹.

Political power is most centralized in social institutions, such as contemporary state formations. However, there used to be an ongoing academic debate in political anthropology circles as to who was the 'real' powerholder – the state or the individual. Anthropologist Ronald Cohen characterizes the state as the most powerful organizational formation in history because it is the only one that can send thousands,

³⁹ Kurtz, 2001 p. 21-23

⁴⁰ Ibid, p. 21

⁴¹ Ibid.

even millions of people to their deaths⁴². In contrast, anthropologist Alfred Radcliffe-Brown⁴³ contended that there is no such thing as state power; instead, it is the individual who exploits it⁴⁴. Siding with Cohen, it is essential to remember the historical processes that helped legitimize institutional power, causing states to become the primary powerholders in contemporary society⁴⁵, allowing them to establish social order within a particular territorial framework through a material or ideational domains of power⁴⁶. Material resources included goods, services, allies and supporters; while crucial, they were also apparent when used in politics. Ideologies, on the other hand, are utilized more subtly. They can be embedded in symbols and information to alter their meanings. Kurtz adds that ideations can also help politicians obtain material resources, such as money⁴⁷.

Some ideas are more important than others to maintain the *status quo*⁴⁸, which is why they are included and promoted in visual, written, or verbal narratives. This turns politicians, and in subsequence – governments, into knowledge creators, transforming the discourse into a power apparatus⁴⁹. Apolitical narratives, therefore, do not exist.

2.2 The Nation-State

Politics and power can only be adequately understood through deconstructing the ‘historically unique organization of the rule of men over men’ that is the nation-state⁵⁰. According to Sociologist Max Weber, power and struggle are the basic components of social life, and they do not exist in abstraction. Instead, they are embedded in the very core of social actions, resulting in creating a system that organizes said social action to give political struggle a specific form and direction⁵¹.

Nation-states have developed into their contemporary form since the French Revolution⁵² and represent a combination of two elements – nationality and state⁵³.

⁴² Cohen & Service, 1979 p.1

⁴³ Radcliffe-Brown is oftentimes (rightfully) criticized for failing to acknowledge the effects of colonialism on societies.

⁴⁴ Radcliffe-Brown, 1940 p. xi-xxiii

⁴⁵ Cohen & Service, 1979 p.1

⁴⁶ Kurtz, 2001 p.31

⁴⁷ Ibid.

⁴⁸ Ibid, p.35

⁴⁹ Ibid, p. 36-8

⁵⁰ Dusza, 1989 p.71

⁵¹ Ibid, p. 73-4

⁵² Period between 1789 and 1799, which is characterized by rapidly and radically changing socio-politics.

⁵³ Arendt, 1951 p.229

While the development of state structure inherited its design and function from monarchies, nationality is a relatively new concept. With the merge of these two concepts, the state was forced to recognize ‘nationals’ as equals to citizens and guarantee the protection of their human rights⁵⁴. According to philosopher Hannah Arendt, nationalism is a symbolic expression of this merge, identifying that citizens are part of the nation⁵⁵. Benedict Anderson⁵⁶ broadens the notion even more, explaining that the nation is an ‘imagined political community’ that is both limited and sovereign. It is imagined because its members will never know most of their fellow members, yet in their minds, they are part of the same community that shares a common language, culture, religion, race, ethnicity, or live within the same borders⁵⁷. Nationalism, therefore, is a socially constructed ideology that creates national identity where there is none⁵⁸; it is imagined sovereign because human rights guide it, and it is imagined limited because it is constrained by boundaries, beyond which lie other nation-states⁵⁹. Finally, for Anderson, nation-ness is a cultural artefact that still to this day commands a significant emotional legitimacy through law and the existence of cohesive borders⁶⁰.

2.3 European Expansion

However, with borders comes the ambition to expand, which is precisely what European countries (later – nation-states) did from the 15th century onward⁶¹. This process is called Imperialism or Colonialism - the two terms oftentimes used interchangeably, although there is a slight conceptual difference. Academic Edward Said characterizes imperialism as a practice, theory and attitude of ruling a distant territory from a metropolitan centre, while colonialism refers to setting up a settlement on a remote territory⁶². Therefore, we can assert that imperialism is the primary framework that motivates the practice of colonialism⁶³.

⁵⁴ Arendt, 1951 p.230

⁵⁵ Ibid, p.231 and Halme-Tuomisaari & Slotte, 2015 p. 7

⁵⁶ Political scientist and historian.

⁵⁷ Anderson, 1991 p. 6 and Young, 2003 p.65

⁵⁸ Gellner, 1964 p. 169

⁵⁹ Anderson, 1991 p.7

⁶⁰ Ibid, p. 4 and Young, 2003 p. 73.

⁶¹ Gilmartin, 2009 p.115. Authors identify three waves of European colonial and Imperial expansion; the first wave focused on the Americas, as well as the Caribbean, starting from the 15th century onward by Spain and Portugal. The second was led by the British expansion in Asia, particularly – India in the 17th century. The third wave focused on Africa in the late 19th century, with Britain, France, Germany, Portugal, Belgium, Italy, and Spain snatching the majority of the territory.

⁶² Said, 1993 p.9

⁶³ Gilmartin, 2009 p.115

Imperial and colonial rule allowed European countries (later – nation-states) to spread their territories through ideological and physical dominance, thus establishing a lasting power dynamic⁶⁴. This expansion was first and foremost economically motivated⁶⁵ - the transatlantic slave trade, land grabs, exploitation and oppression eventually built up to the development of capitalism in Europe⁶⁶. For the colonized, however, this meant the establishment of Western hegemony as a religiously inspired⁶⁷ repression⁶⁸. The latter affected modes of knowledge the most, with the colonizers repressing local systems of expression (symbols, images, perspectives) and instead imposing their own belief systems that played into their hands by justifying their mission as essential for the development and modernization of the colonized⁶⁹. As a form of cultural domination, colonizers imposed a false normative pattern of development that centralized the European model of transformation through production and material benefit, promising that in due time the repressed colonies would also attain the same power as the West carried⁷⁰. This exemplifies a form of ideological domination and sets a precedence for the exertion of political power – through rights - beyond the established borders of the nation-state.

2.4 Human Rights and Law

Interestingly enough, the history and politics of the empires launched the notion of rights⁷¹. Benton and Slater argue that by using the language of ‘common good’ and ‘general welfare’, the colonizers justified and supported the slave trade and exploitation of the colonies⁷², legitimizing their power by normalizing oppression⁷³. These processes all shaped the development of contemporary human rights discourse, including the points of criticism regarding their legitimacy, effectiveness and applicability⁷⁴. These concerns are best encapsulated in debates on human vs citizen rights and the claim to

⁶⁴ Young, 2003 p.37

⁶⁵ Ibid, p. 36

⁶⁶ Seth, 2013 p. 18-19

⁶⁷ i.e. Christian.

⁶⁸ Krishna, 2009 p. 163

⁶⁹ Quijano, 2007 p. 169 and Krishna, 2009 p. 168

⁷⁰ This, together with the attempts of nation-building, can be considered as examples of social Darwinism.

⁷¹ Jensen, 2016 p. 14

⁷² Benton & Slater, 2015 p.157

⁷³ Ibid, p.141 and Langford, 2018 p. 80.

⁷⁴ Langford, 2018 p.69. Although there is also growing empirical evidence, that the ‘human rights project’ has been more successful than we credit it, I will predominantly focus on the human rights concerns in this chapter.

universality. What both of these human rights paradoxes have in common, however, is the territorial nature of law, which I elaborate on in the subsequent chapters.

2.4.1 Human vs Citizen rights

Law is inherently spatialized⁷⁵; consequently, the legal category of ‘citizen’ becomes meaningless unless tied to the spatial category of ‘territory’⁷⁶. This was most evident in the early 20th century, at least in the West, when millions of people lost their nationality due to wars and oppressive, totalitarian governments⁷⁷. Philosopher Giorgio Agamben discusses how the mass phenomenon of refugees challenged the contemporary human rights paradigm, in turn also ruining the illusion of the nation-state and its sovereignty⁷⁸. The judicial system of the nation-state does not leave room for the stable status of human-in-itself⁷⁹ and instead considers the status of a refugee as liminal, leading ‘either to naturalization or to repatriation’⁸⁰. Because we cannot detach law from the spatial, nation-states are inclined to prioritize the rights of their citizens over the fundamental rights of other individuals. Darian-Smith contends that this is precisely why human rights are routinely treated as secondary to national sovereignty⁸¹, tying back to Arendt’s account of how European states failed to safeguard those left without national states during the two world wars⁸². The entire concept of a refugee surpasses the established dichotomy of the citizen and the human, putting state sovereignty into crisis and unhinges the holy trinity of state-nation-territory⁸³.

2.4.2 Universality issue

The universal nature of human rights has been a central discourse within the field, frequently disputed by anthropologists due to its sociological illegitimacy⁸⁴. Some authors even declare that human rights’ universality and constancy claims make them

⁷⁵ Darian-Smith, 2013 p.170

⁷⁶ Ibid, p.172

⁷⁷ Arendt, 1951 p. 266-267

⁷⁸ Agamben, 2008 p. 90

⁷⁹ Despite the terms citizen already containing the term human.

⁸⁰ Agamben, 2008 p. 92. This infamous quote is ascribed to Robert Yewdall Jennings and used both by Agamben and Arendt (1951, p.279, footnotes) as an ironic formulation to show what was expected of the refugees in mid 20th century.

⁸¹ Darian-Smith, 2013 p.257

⁸² Arendt, 1951 p. 271-2

⁸³ Agamben, 2008 p. 93

⁸⁴ Langford, 2018 p.72

vulnerable to criticism – both on the grounds of representation and epistemology⁸⁵. The most quintessential example of this is the drafting of the Universal Declaration of Human Rights (UDHR), which owing to its western origins, was a negotiation attempt to standardize the values of a single culture⁸⁶. And while there are scholars like Stephen Hopgood who ascribe human rights to very particular, imperialist and Christianity-centered origins⁸⁷, others are keen on highlighting the more common core values that exist in different cultures⁸⁸. The main question that we should be considering, however, is whether or not the international human rights system truly provides an all-inclusive approach, benefitting everyone in all situations and contexts⁸⁹.

This is clearly not the case. Because of its territorial nature, the law is produced based on local meanings and practices⁹⁰. It reflects concrete configurations of power, agency and knowledge⁹¹ that cannot be applied outside of its specific contexts⁹². Therefore, the universality claim adds to the legitimacy argument, which strengthens the nation-state's hegemony.

2.5 Relevance to the Case of Mars

This brief literature overview shows how the nation-state-territory trine uses rights, and subsequently, law, to legitimize their power through ideology and how that came to be the dominant historical and political phenomenon. Although national law and their respective territories provide the dominant political context in which law is exercised, these spaces of legal interaction are never static, sometimes producing ambiguous, contradictory and liminal symbols of belonging and identity⁹³. These are contexts where the law gets questioned, and with unique opportunities arising to create new regulations, the entire *status quo* of the nation-state gets challenged. The subsequent chapters build on these ideas by considering how the same ideologies are used and recreated by nation-states to legitimize their claim over the resources outside of Earth and how the expansion narrative is recreated in the colonization of Mars discourse.

⁸⁵ Langford, 2018 p. 72

⁸⁶ Ibid, p. 72-73

⁸⁷ Hopgood, 2013 p. 35 and Constantinides, n.d. p. 52

⁸⁸ Langford, 2018 p. 73

⁸⁹ Constantinides, n.d. p. 51

⁹⁰ Darian-Smith, 2013 p.40, 170

⁹¹ Ibid, p.167

⁹² Ibid, p.40, 179

⁹³ Ibid, p. 171

3. Theory

This chapter presents the Theories of Ideology as a broad category of concepts that examine and question ideas of power, domination and hegemony, deriving from the ideations of different authors that form a complex investigation of the socio-political praxis. A general understanding of particular conceptual threads within the theory is considered crucial to making sense of how they build on each other's theoretical contributions and how they can help frame the human Mars settlement discourse.

3.1 Theories of Ideology

Ideology is a system of communicating identities, beliefs, and social structures. Simultaneously, it is also a process of producing meanings, ideas and attitudes that help legitimize particular social groups and political authority⁹⁴. Although an interdisciplinary field, the concept borrows heavily from linguistics, sociology and social psychology, asserting that ideas expressed in society are *eo ipso* carriers of concrete ideologies that 'matter to, and in, societies'⁹⁵. In effect, the systems of power and hegemony are predominant in the theory, how they are produced, naturalized, and reproduced in society through verbal and written discourse⁹⁶. As such, Ideology is a group practice⁹⁷ that can be studied through its prominent use of language⁹⁸.

The idea that ideology can be investigated through linguistics derives from the Critical Theory of the 20th century⁹⁹ and its long tradition of examining social belief systems¹⁰⁰. In that sense, the Theory of Ideology has been influenced by the works of Louis Althusser, Antonio Gramsci and Teun A. van Dijk¹⁰¹ among others, all of whom have their take on the concept. Therefore, when we talk about the Theory of Ideology, we cannot imply a uniform perception but rather a nuanced umbrella covering a broad category of thinkers and notions¹⁰². The subsequent chapters will briefly summarize the

⁹⁴ See Eagleton, 1991, p.1-2, and van Dijk, 2013, p.1

⁹⁵ Freeden, 2006 p. 15

⁹⁶ Fairclough, 1992 p.86-87 and van Dijk, 2013 p.2

⁹⁷ van Dijk, 2011 p.381

⁹⁸ See Freeden, 2006 p.7-10. Here a parallel can be drawn to Ludwig Wittgenstein's concept of using language as an instrument that leads us to investigate social expressions and interests (Philosophical Investigations, 1973, §569-570).

⁹⁹ Van Dijk, 2013 p.2

¹⁰⁰ Bartonek & Wallenstein, 2021 p.211

¹⁰¹ Ibid, p.296

¹⁰² Ibid, p.295

contributions these thinkers have had to the Theory of Ideology and explain how the combination of their theoretical frameworks work in reference to the Case of Mars.

3.1.1 Ideological State Apparatuses

One of the most influential frameworks for theorizing ideology comes from Louis Althusser¹⁰³, who introduced the concept of ideological state apparatuses - institutions (such as churches, media, education, etc.) that construct, convey, or distribute discourse. Althusser saw their role in reproducing class inequalities as an act of creating relations of domination that, on the one hand, contributed to social inequalities¹⁰⁴ but, on the other, positioned discourse as a point of ideological inquiry¹⁰⁵.

Althusser's attempt to develop a theory of the state that extends beyond its borders is especially noteworthy. He centralizes absolute state power and differentiates between 'political' and 'associative' state apparatuses, meaning state power extends over its formal borders through ideology, although its subjects are misdirected from understanding the underlying connection¹⁰⁶. Here he also brings in the notion of historical materialism that stems from the understanding that ideologies have a 'material existence in the practices of institutions'¹⁰⁷, taking the form of art, law, or other types of social activity¹⁰⁸. For Althusser, legal praxis is the ultimate instrument of class domination appointed by the state¹⁰⁹, the solution to which, according to him, would be the disposal of law altogether¹¹⁰ – a clearly problematic notion from a human rights perspective.

Still, what would happen if we take the Althusserian concepts of ideological state apparatus and historical materialism to the extreme? Indeed, what would surpass formal state borders better than a colony on Mars? Furthermore, what would exemplify the idea of reification – the act of transforming an abstract idea into a thing¹¹¹ - more than the

¹⁰³ Althusser is also remembered, correctly, for killing his wife, sociologist Hélène Rytman-Légotien, in 1980.

¹⁰⁴ Fairclough, 1992 p.87, Althusser, 2014 p. xi and Reoch, 2014 p. 92

¹⁰⁵ Fairclough, 1992 p.87

¹⁰⁶ Reoch, 2014 p.92

¹⁰⁷ Fairclough, 1992 p.87, Reoch, 2014 p.92 and Ryder, n.d.

¹⁰⁸ Fairclough, 1992 p. 92

¹⁰⁹ Althusser, 2014 p. xxii

¹¹⁰ Ibid, p. xxiii

¹¹¹ Bartonek & Wallenstein, 2021 p.119. Reification as a concept in relation to Marxist theory was first developed by the Hungarian philosopher Georg Lukács and later finetuned by the German philosopher Theodor W. Adorno.

intention of monetizing resources of another planet that we have no tangible way of reaching as of writing this paper?

Nevertheless, there are limitations to Althusser's theory; Norman Fairclough criticizes the rigidity of Althusser's work on the basis that it takes away the agency of its subjects¹¹² while at the same time considers ideology as a 'social cement', negating the idea of transformation¹¹³. Here, Fairclough suggests considering how Antonio Gramsci theorizes ideology and discursive change, which is the main point of discussion in the subsequent chapter.

3.1.2 Hegemony and Discursive Change

In contrast to Althusser's vision of one-sided imposition of power, the Italian social theorist Antonio Gramsci emphasizes the unique positioning of subjects to simultaneously be repositories of the past ideological struggles and targets in restructuring the ongoing ones¹¹⁴.

In that sense, Gramsci highlights how power relations are susceptible to discursive change while also being shaped by it¹¹⁵. The concept of Ideological Hegemony is considered the cornerstone of his framework, the latter being conceptualized as an unstable, temporary act of domination over society that is constantly constructing or sustaining dynamics of power and subordination in the socio-economic, political or cultural spheres. What makes an institution truly hegemonic, however, is its ability to articulate the needs of social groups that it is oppressing¹¹⁶. Gramsci explains the two principal ways in which institutions or social groups become hegemonic – conveying the interests of different social groups can be done either by neutralizing (i.e. preventing them from developing their own demands) or naturalizing them (i.e. absorbing their interests to create consensus in society). The latter is described as expansive hegemony where the entire society advances¹¹⁷; however, that also entails a complete transformation of the previous ideological framework to include components of the new collective will¹¹⁸. The latter is done by imposing new rules and laws in society, meaning the transformation of the material expressions of power which in and of themselves

¹¹² Althusser is also oftentimes charged with holding elitist perspectives.

¹¹³ Fairclough, 1992 p.87

¹¹⁴ Ibid, p.92

¹¹⁵ Ibid.

¹¹⁶ Mouffe, 1979 p181

¹¹⁷ Ibid, p.182-3

¹¹⁸ Ibid, p.191

entail a change in discursive events¹¹⁹. The concept of hegemony, therefore, provides both a matrix and a model for analyzing discourse – on the one hand exploring how the social practice changes based on the discourse, whether it reproduces, restructures or challenges existing hegemonies, and on the other, how the discourse practice transforms¹²⁰.

The fluid nature of discursive change is fascinating when it comes to the human Mars settlement narrative, considering its legal and political dimensions, but even more so because of its deep roots in the Cold War period. Gramsci makes us realize that discourse and context are more reciprocal than it seems, allowing us to successfully combine them in efforts to analyze the process of change – something which would be impossible if we solely focused on Althusser’s framework.

Briefly mentioned but not fully explored in Gramsci’s ideation is the construction of identity within discourse that connects us to a specific ideology. This is the final chess piece of the Theory of Ideology, explored by the Dutch linguist Teun A. van Dijk and further explained in the subsequent chapter.

3.1.3 Socio-cognitive Structures of Ideology

Teun A. van Dijk’s contribution to the Theory of Ideology is defining its socio-cognitive aspects¹²¹. He introduces a multidisciplinary understanding of ideology, thus adding a psychological dimension to the concept¹²². His theoretical framework describes ideology as a cognitive construct that is socially shared by the members of a specific social group through language, developed as a result of social interactions that are part of social structures¹²³. Since language cannot be personal, there are no personal ideologies; instead, they present socially shared belief systems that individuals can express but largely represent a group practice. This adds a dimension of identity to the concept of Ideology, the latter serving as a determinant of the self-image of a group¹²⁴.

Furthermore, as part of the social struggle, many ideologies affect situations of competition, domination and resistance between groups, thus contributing to the

¹¹⁹ Fairclough, 1992 p.94-5

¹²⁰ Ibid, p.95

¹²¹ van Dijk, 2011 p.383

¹²² Ibid.

¹²³ van Dijk, 2011 p.384

¹²⁴ van Dijk, 2011 p.385 and van Dijk, 2013 p. 2-3

ingroup-outgroup division typically exemplified by an Us vs Them dynamic¹²⁵. This is most visible in political discourse production, primarily in the infamous use of the pronoun *we* to imply a tacit agreement to the ideology. However, it is not enough to merely observe this phenomenon. Van Dijk stresses the importance of critical analysis of such identity-forming categories, questioning who is speaking, where, when, with whom and why¹²⁶. Ideological discourse often shows the political emphasis on ‘our good things’ while de-emphasizing ‘their good things’. Similarly, we may notice that ‘their bad things’ are highlighted while ‘our bad things’ get played down¹²⁷. This way, van Dijk explains, attitudes play an intermediary role that connects general ideologies to the social domain of general practises, ultimately linking them to discourse¹²⁸, thus creating a tripartite model of discourse-cognition-society and allowing inquiry into how ideologies get shared and reproduced while also replicating social inequalities by written and verbal communication¹²⁹.

Considering the identity factor is crucial for the theoretical understanding of the human Mars settlement narrative, no discourse is neutral, especially in political ideologies; and Van Dijk’s theoretical framework provides us with the necessary lens through which we can observe and understand the construction of identities that operate within the space exploration narratives.

The final section of this chapter summarizes the three facets of the Theory of Ideology, concluding that the combination serves as a practical critical framework for analysis.

3.2 Case for Mars: An Ideological Endeavour?

Theories of Ideology provide a solid foundational link for researching the connection between state power and its realization of human rights on the one hand and the ideological signifiers within the used discourse of potentially recreating social inequalities on Mars on the other. The three components outlined in previous segments – concepts of absolute state power, the transformative nature of discourse and politics of identity – all play a significant role in this inquiry, ultimately answering the main research question – how would human rights work outside of the context of Earth.

¹²⁵ van Dijk, 2006 p. 730

¹²⁶ Ibid, p.733

¹²⁷ Ibid, p. 734

¹²⁸ van Dijk, 2011 p. 387

¹²⁹ Jahedi, 2014 p.32

4. Methods and Methodology

This chapter will discuss the methodological framework and procedure used to answer the research questions. Afterwards, I will present the data sample and explain the collection and the tool selection process.

The limited academic research on the human rights aspects of human space settlement largely affected the methodological choices for the study. It was clear that multimethod research was necessary first to map out the existing data and subsequently analyze it to answer the research questions. Therefore, Literature Mapping was used to collect and assess the data, followed by Norman Fairclough's approach to Critical Discourse Analysis (CDA) to analyze the final sample. The following pages will explain each step in-depth.

4.1 Briefly on Qualitative Multimethod Framework

Multimethod or mixed-method studies usually rely on more than one research strategy to approach data¹³⁰. This entails that the researcher employs multiple methods fully, conducting them either simultaneously or sequentially to address the main areas of inquiry; additional data is then synthesized with the main findings to generate results¹³¹. Mingers and Brocklesby argue that multimethodology adds theoretical depth and richness to the object of inquiry, particularly when the latter is multi-dimensional¹³², as with this particular paper.

Having laid down the foundations for multimethodology, I will now explain the logical framework of this research. As mentioned above, this thesis applies two different qualitative methods that were used sequentially. As the first step, Literature Mapping was identified to collect data and narrow down the available discursive narratives on human Mars settlement. Since space exploration has previously not been analyzed in relation to the human rights framework, this step was crucial for generating, reviewing and identifying the relevant data sample. As the second step, CDA was applied to the final data sample, analyzing the narrative discourses and establishing themes. The sequential nature of the methodology highlights the complimentary aspects of the two methods while also ensuring the validity and reliability of the analysis.

¹³⁰ See Leavy, 2014, p.9 and Mingers & Brocklesby, 1997, p. 491

¹³¹ Morse, 2009 p. 1523.

¹³² Mingers & Brocklesby, 1997 p. 492

The subsequent subchapters further explain the individual methodologies and how they were conducted.

4.2 Review as a Method

To review means to re-examine or inspect a given subject again. Currently, this definition is applied to all review types used as a method, the main aims of which constitute ‘sorting through the rubbish’ and summarizing what remains¹³³. Authors differentiate between different types of review based on the researcher’s aims and types of approach¹³⁴. This study employs a Mapping Review, otherwise known as a Systematic Map, to outline and classify existing literature to identify gaps and suggest new frameworks for further research¹³⁵.

Literature Mapping is a critical analysis process that lets the researcher follow the mapping flow without knowing the outcome in advance¹³⁶. By collecting and categorizing multiple texts on a given subject, the method allows for the contextualization of the matter, after which the scholar can determine research gaps and generate vital new knowledge for investigation¹³⁷ based on and relevant to the cumulative efforts of previous scholars within the discipline¹³⁸.

This thesis employs Literature Mapping to compile an exhaustive summary of available literature relevant to the study question, aiming to synthesize them into a cohesive narrative¹³⁹. A general descriptive character of the data is perceived as one of the main weaknesses of this method¹⁴⁰; however, that is not the case for this particular text. As such, it contributes to a better understanding of the topic before analyzing the data, therefore representing a crucial first phase of the study.

4.2.1 Literature Mapping Strategy

Lund University library database was used to access relevant literature on human Mars settlement. Firstly, relevant inclusion and exclusion criteria were developed: the language of the literature was identified as English, and both the year of publication and

¹³³ Grant & Booth, 2009 p. 92

¹³⁴ See Snyder, 2019, Pare, et al., 2015 and Grant & Booth, 2009 p. 94-96

¹³⁵ See Turin, 2017, p. 637; and Grant & Booth, 2009 p. 94

¹³⁶ Grant & Booth, 2009 p. 97

¹³⁷ Snyder, 2019 p. 333

¹³⁸ See vom Brocke, et al., 2009 p. 1 and Snyder, 2019 p. 334

¹³⁹ Grant & Booth, 2009 p.98

¹⁴⁰ Other than the fact that it is time constraining to go through large volumes of data.

the academic field of the text were left randomized. The keywords used were *Mars*, *human Mars settlement* and *Space law* resulting in thousands of sources. The results were then filtered - first by assessing all text titles individually, and if the keywords matched the title, then by reviewing the text abstract/synopsis/description/table of contents as the second step. Finally, all redundant data was removed.

After assessing the relevance to the primary research question and objectives, the final map of literature was drawn, identifying, on the one hand, the main stakeholders (or knowledge producers) in the field and, on the other – the academic disciplines (or genres) in which the human Mars settlement narrative is relevant: Astronomy, Engineering and Law. Furthermore, books of a strictly technical character with no socio-political, cultural, historical or legal perspective were removed as they do not fit into the study. This primarily meant that almost no text from the Engineering genre made it to the final sample selection.

The final data sample combines two space law books, four conference proceedings, and seven astronomy books, all used as primary data for further analysis through CDA¹⁴¹. This strategy is motivated by the fact that they mainly reiterate what has been stated in the main four books, only adding a few new discursive threads highlighted in the analysis. Therefore, I concluded that prioritizing quality over quantity would benefit the research due to limited time and Space.

4.3 CDA

To understand CDA, we must first understand what the concept of ‘discourse’ entails. Even though there are various overlapping definitions from different theoretical fields, we can conclude that ‘discourse’ is a social construct, referring to the various ways in which areas of knowledge and social practice are structured¹⁴². Discourse builds or even ‘constitutes’ social relations while simultaneously positioning people as social subjects differently¹⁴³. Authors claim that discourse has the power to affect society through linguistic use, highlighting issues of hegemony and ideology through analysis; hence CDA focuses on text and interaction as an interrelated expression of social practice¹⁴⁴.

There is a specific symbiotic relationship between discourse and social power; on the one hand, social structures both shape and affect discourse, but on the other – social

¹⁴¹ A full list of sample data is attached in annex 9.1.

¹⁴² See Fairclough, 1992 p. 3 and Janks, 1997, p. 329

¹⁴³ Fairclough, 1992 p. 3-4

¹⁴⁴ See Jahedi, 2014 p. 28, Fairclough, 1992 p. 63 and Janks, 1997 p. 329

structures are created and maintained through it, even though the latter may have its dimensions constrained by them¹⁴⁵. CDA gives us the tools to scrutinize both how institutional power shapes discourse in society but also how societal discourse empowers institutional power.

‘Critical’ in discourse analysis implies uncovering hidden knowledge within a given narrative thread. Author Hilary Janks identifies two reading positions: reading with or against the text. This first manifests itself when we, as researchers, or the target audience, agree with the naturalized discourse. On the other hand, when we feel alienated from the narrative thread, it becomes easier to be critical. This is called reading against the text, when the consumer is at an advantage and can better identify the consequences of a discourse¹⁴⁶. Fairclough’s CDA advocates for the latter, focusing primarily on concepts of ideology and hegemony within discourse, how they are formed, reproduced, contested, and transformed¹⁴⁷. Text is a fascinating discursive practice in that sense, as it allows us to examine how it was produced, distributed, and consumed without being able to reconstruct the process of its production or interpretation; text already carries the history of these discursive processes¹⁴⁸, and as researchers, we can address both form and the narrative meaning through them¹⁴⁹.

4.3.1 CDA Strategy

According to Fairclough, every communicative event combines three dimensions: text, discursive practice and social practice¹⁵⁰; similarly, different tools should be used to analyze these aspects. In the case of this thesis, the communicative events are the books selected as sample data, ready for analysis.

Fairclough suggests using *interactional control, cohesion, politeness, ethos, grammar* (which combines *transitivity, theme* and *modality*), *word meaning, wording* and *metaphors*¹⁵¹ as tools when it comes to text. Drawing from linguistics and semiotics, it is encouraged that the interpreter focuses both on language forms and their meanings¹⁵²,

¹⁴⁵ Fairclough, 1992 p. 64

¹⁴⁶ Janks, 1997 p. 330-1

¹⁴⁷ Fairclough, 1992 p. 9-10

¹⁴⁸ Ibid, p.72

¹⁴⁹ Ibid, p. 74

¹⁵⁰ See Jørgensen & Phillips, 2011 p. 66 and Fairclough, 1992 p. 73. See the chart attached in annex 9.2.

¹⁵¹ Fairclough, 1992 p. 234-237

¹⁵² Ibid, p. 74

emphasizing the signifier and the signified since they are socially motivated¹⁵³. As relevant to my research aims, I applied *interactional control, ethos and theme* to the sample data. As Interactional control focuses on who sets the conversational agenda, it also implies a certain power and dominance within the discourse. The objective of using this tool in the research is to identify the main ‘knowers’ in the field of human space settlement, as they are relevant in terms of epistemic agency¹⁵⁴. Ethos is used to investigate what identities are constructed in the discourse, how they are positioned in the text and what purposes they serve¹⁵⁵. The analysis of themes uncovers the types of information that is presented, what their textual function is, and to which ideological assumptions they refer to¹⁵⁶.

The second part of CDA entails questioning text production, distribution and consumption. Here the researcher starts unpacking the different aspects of a hegemonic struggle that the discourse is part of¹⁵⁷ using the following tools: *interdiscursivity, intertextual chains, coherence, conditions of discourse practice* and *manifest intertextuality*. This paper solely focuses on *interdiscursivity* to identify the discourse types that are drawn upon in the sample and how. Marianne Jørgensen and Louise J. Phillips propose that a high level of interdiscursivity refers to changing ideologies, whilst a low one refers to the reproduction of the established order¹⁵⁸, which is relevant to the research question presented in this thesis.

Finally, the third stage of the analysis is dissecting the social practice. Here we need to look into the *social matrix, orders* and the *ideological and political effects* of discourse. This step of the analysis is the most intricate and relevant one for the thesis, as it examines the nature of the discourse practice and explains which larger discourse practice it is a part of. By employing the *social matrix of discourse*, the thesis aims to identify and establish *dominant ideological relations* and *political structures* presented in the sample, which is also what connects the methodology to the Theory of Ideology presented in the previous chapter¹⁵⁹. The present framework, I believe, allowed for connecting textual discourse to the social relevance of the human Mars settlement

¹⁵³ Fairclough, 1992 p. 75

¹⁵⁴ Ibid, p. 152-8

¹⁵⁵ Ibid, p. 166-8

¹⁵⁶ Ibid, p. 183-5

¹⁵⁷ Jørgensen & Phillips, 2011 p. 73

¹⁵⁸ Ibid, p.79

¹⁵⁹ Ibid, p.82

narrative and, by doing so, allowed a deeper discussion on the human rights impacts of doing so.

4.4 Method Limitations, Reliability and Validity

Space exploration is a fast-developing field, and new information is published daily. This impacted the use of Literature Mapping as a method for research, as some new textual discourses may have been left unacknowledged based on when they were published. Furthermore, due to limited time and a large amount of generated results, some mapping had to be superficial, solely based on the use of relevant keywords in the title. Hence, this should be considered one of the study's main limitations.

Regarding CDA, it is essential to highlight the interpretative nature of the tool; hence the meanings we, as interpreters, choose to highlight depend on the researcher, their specific knowledge, and interests. The discursive threads represented are the author's selection and are not representative or exhaustive of all possible ideological narratives. However, the fundamental premise of all research is how each researcher interprets the reality in their own subjective ways, showing us the many available interpretative options (and therefore discursive realities) that we can reflect and build on. Therefore, this should be considered a premise instead of a vice of the thesis.

At the same time, to ensure the validity of the data and the reliability of the analysis, clear strategies and guidelines were employed. The methodological framework was as detailed as possible, and the strengths and weaknesses of both research methods were examined. The CDA analysis was done without any predetermined coding labels to counter some of the methodological concerns. This allowed me to identify meaningful themes while avoiding personal bias but also allowing future scholars to re-examine the findings in the Analysis chapter and verify or falsify the validity and reliability thereof.

5. Analysis

The analysis is presented in three thematic subchapters of astronomy, legal literature, and conference proceedings based on the data sample. Within each, I introduce the ideological frameworks identified through the use of methodological tools discussed in

the previous chapter: interactional control, theme and ethos. Afterwards, I explore similarities and differences between the literature genres using interdiscursivity to clarify whether or not the discourse is transformative, as opposed to traditional. Finally, I analyze the social matrix of discourse, identifying the ideological and political characteristics thereof, linking it all to the theoretical framework of Ideologies and its three elements: concepts of absolute state power, the transformative nature of discourse and politics of identity.

5.1 Astronomy Literature

The astronomy literature compiles seven books, out of which only one is authored by a woman. By identifying the main knowers, we can emphasize the inherent epistemic privilege of the information creators and explain why certain thematic topics are prioritized over others in the text. Some narratives produced by men are more likely to focus on exploitation, as is the case with Zubrin, Seedhouse, Smith, Jackson and Moore, while Stewart Johnson is more cautious in the matter and advocates for planetary protection.

On the other hand, core ideological and political structures are the same in all literature, such as the idea of *development*. None of the authors shy away from historical analogies to colonization; there are multiple cases when they draw parallels to fallen empires, such as China, who ‘doomed themselves to be discovered’¹⁶⁰ instead of sailing off to the unknown, like the Western colonizers, to establish domination over newfound lands¹⁶¹. Ming emperors of China are used as a cautionary tale of what happens when you pull inwards, juxtaposing the narrative with the Western colonizers, most notably Portugal and Spain, whose ‘pioneering spirit’ and willingness to accept challenges made the Western civilization flourish and ‘dominate the world’¹⁶².

By building up a crisis-resolution narrative, the reader is suggested a single solution – dominate, or be dominated, take advantage, before you are taken advantage of, or even worse – forgotten. Here, we also see how the development narrative is tied to power relations and, subsequently – the material well-being of the powerful.

Terraforming vs Planetary Protection is a major debate that connects to development. We see it being mentioned in Zubrin’s, Oberg’s, Weintraub’s, Smith’s and Stewart

¹⁶⁰ Zubrin, 1989 p.20

¹⁶¹ Ibid.

¹⁶² Zubrin, 1989 p.xi

Johnsson's texts, however, to varying degrees. Weintraub and Stewart Johnson call for thoughtfulness when it comes to contamination, terraforming, and commercialization of Space¹⁶³ - in that sense, both authors can be considered advocates for planetary preservation because if Mars truly holds the answers to life, then even the smallest Martians matter, therefore Mars matters¹⁶⁴. Others, however, do not share this sentiment. Oberg's entire discourse is built on planetary exploitation. Mars has value only as far as it can provide us with exploitable resources – this is what differentiates it from the Moon, among other celestial bodies¹⁶⁵. While Oberg describes the damaging consequences that travelling to Mars can have on the human body¹⁶⁶, he still justifies the quest by explaining its cost-effectiveness¹⁶⁷. This is reminiscent of Seedhouse, who advocates for more funding allocation for 'manned space missions', despite all the physiological and psychological hardships that the mission crew has to go through¹⁶⁸, claiming that robotic space missions are not as effective in scientific research¹⁶⁹. Seedhouse strongly believes that the crew will judge these risks as well worthy since they would have contributed to the transformation of humankind into an interplanetary species¹⁷⁰.

Here, we see the emergence of another significant thematic frame – *capitalism* - most evident in Zubrin's and Seedhouse's narratives. Mars is imagined full of commercial orbital research laboratories and factories, space hotels and business parks¹⁷¹. 'There is no source of cash profit on Mars today,' says Zubrin, 'but there will be once smart people are living there'¹⁷². Hence, outer Space is presented as 'prime real-estate'¹⁷³ that we as humans should gain complete control over, which, by extension, would also benefit the nation-states¹⁷⁴.

Ethos is exemplified by the overuse of the collective pronoun 'we' and determiner 'our'. Each author imagines their reader as someone whose identity seemingly aligns

¹⁶³ See: Weintraub, 2018, p. 11, and Johnson, 2021, p. 56

¹⁶⁴ Weintraub, 2018 p.10-11

¹⁶⁵ Oberg, 1982 p.140

¹⁶⁶ The Martian atmosphere cannot protect one's skin from the Sun's UV rays. Furthermore, bone demineralization might be one of the most lasting and damaging effects of the Mars mission, causing the astronauts to recover from it for several years after returning to earth.

¹⁶⁷ Oberg, 1982 p.163

¹⁶⁸ Seedhouse, 2009, p. 173

¹⁶⁹ Ibid, p. 7

¹⁷⁰ Seedhouse, 2009 p. 234

¹⁷¹ Zubrin, 1989 p. 59

¹⁷² Ibid, p. 108

¹⁷³ Ibid, p. 262

¹⁷⁴ Seedhouse, 2009 p. 277

with their own, subsequently promoting an ‘us vs them’ dynamic. For Zubrin, Seedhouse, Moore, Smith and Oberg, the subjects of ‘we’ and ‘us’ are characterized by the virtues of being adventurous, bold, progressive, creative, or somehow unique. For Weintraub and Stewart Johnson, the same categories align with critical, realistic identities that do not challenge space treaty regulations while still calling for their betterment, and are motivated by the vigour of academic discovery. As examples, I suggest two quotes: ‘*our* planetary protection policies need to be updated from the current ones’¹⁷⁵, and ‘...to defy *our own* isolation in the universe’¹⁷⁶[*emphasis added*].

All seven books draw from two main discursive types - either advocating for colonizing Mars or - calling for caution. Interestingly, both of these threads are connected to the same dominant ideology but in different ways. Colonizing Mars exemplifies the nation-state's territorial expansion and material development goal, which feeds back into institutional power and legitimizes it. At the same time, planetary protection, albeit a worthy cause, relies on legal implementation, which is still bound to the nation-state. This illustrates how despite the transformative character of the narrative, the ideology remains the same, essentially changing nothing.

5.2 Legal Literature

All legal literature analyzed in the sample is produced by men, which leaves no room for the gender comparison of prioritized topics. However, it allows us to stress the epistemic privilege these authors have, creating a masculine reality in the field of space law that later gets translated into policy implementation.

Nonetheless, there is a thematic richness to the legal literature, raising issues of *legitimacy* and *accountability*, which ties to the ideological frames of *human rights* and *development*. Stephen Hobe is an active critic of the non-binding space regulations, questioning who’s interests it serves to adopt soft rules that have no legal consequences¹⁷⁷. He particularly mentions non-space faring countries, whose political and economic needs, although prioritized on paper, are not always taken into account¹⁷⁸. Sources of space law are questioned heavily in the narrative. Gyula Gal advocates for international cooperation, building his argument on the acknowledgement that interplanetary law is unprecedented, only comparable to Maritime law and the Antarctic

¹⁷⁵ Weintraub, 2018 p.175-6

¹⁷⁶ Johnson, 2021 p. xv

¹⁷⁷ Hobe, 2019 p.45

¹⁷⁸ Ibid, p. 63-64

Treaty System¹⁷⁹. This standard comparison highlights the liminal aspects of space law, creating a unique context where we are ‘faced with special tasks that can no longer be solved with traditional methods’¹⁸⁰. Although, in Gal’s opinion, a geocentric outlook is indeed correct in space law. If we wish to remain grounded in reality, we should build the legal system of Space on the already-established foundational legal systems, not some extraterrestrial one¹⁸¹. Gal sees this as a way to avoid projecting earthly conflicts into this new domain¹⁸². Furthermore, because of its unique nature, space exploration carries a significant global impact; therefore, such activities cannot be restricted to a single nation. Instead, it should be designed as an international common space, ‘with due consideration to the common interests of all mankind’¹⁸³.

Both authors acknowledge the *colonization* narrative thread. Gal calls for caution, although not necessarily opposing the particulars of exploitation that can be regulated in international law¹⁸⁴. Hobe criticizes the nation-state’s insistence on sovereignty¹⁸⁵, stating that using Space as an international global common means that they must compromise so that all countries can contribute as well as receive benefits ‘proportionally to their economic and technological strength’¹⁸⁶. However, the emphasis here is still on the increased commercialization, linking the discursive narrative to *development* and, subsequently, *capitalism*.

Finally, a strong thematic line of state sovereignty and power is represented in the legal literature. Gal discusses how outer Space, and by extension, celestial bodies, are recognized as *res communis omnium*¹⁸⁷, which means that although free for exploration, they are not allowed to be appropriated and exploited¹⁸⁸. This means that the right to occupation, use or claim of sovereignty does not exist in outer Space. However, Gal reasons, space law is still bound by international law, which is built on principles of sovereignty by its very definition¹⁸⁹. This creates a legal paradox, where states conduct activities in spaces where the concept of state sovereignty does not exist¹⁹⁰. Tied to this

¹⁷⁹ Hobe, 2019, p. 69, Gal, p.48, 121

¹⁸⁰ Gal, 1969 p.38

¹⁸¹ Ibid, p.40

¹⁸² Ibid, p.10

¹⁸³ Ibid, p. 123, 200

¹⁸⁴ Ibid, p. 200

¹⁸⁵ Hobe, 2019 p.211

¹⁸⁶ Ibid, p.211-212

¹⁸⁷ A common heritage of humankind.

¹⁸⁸ Gal, 1969 p.126

¹⁸⁹ Ibid, p. 132

¹⁹⁰ Ibid, p. 133

is the concern about the legality of national space laws¹⁹¹. Hobe is a particularly strong critic of national initiatives, calling it a *legal nullum* – a legal void, and advocates for international cooperation instead¹⁹². The cooperation model can be based on international Maritime law, where states do not possess jurisdiction over international high seas but instead exercise their power on what Gal calls ‘floating state territories’, i.e. ships¹⁹³. This final ideational thread of *imaginary borders* is what ties the legal narrative to the thematic line of sovereignty and, by extension – the dominant ideology of *state power*.

None of the authors create distinct identities when it comes to ethos, instead leading a passive, neutral, almost omnipresent voice in their discourse. This, however, should not be mistaken for lack of ideological positionality. The documents are clearly tied to the conceptual ideology of the nation-state as the ultimate power holder, which is unsurprising, as space law is positioned within the legal paradigm of international public law; therefore, issues of state neutrality¹⁹⁴, sovereignty¹⁹⁵ and territoriality¹⁹⁶ affect the narrative construction. It is noteworthy that these discursive threads stay traditional despite being written 50 years apart. The narratives do not seem to differ between books written in 1969, and 2019, displaying a lack of transformation within the field of space law.

5.3 Conference Proceedings

This section covers the content produced during three different scientific conferences on Mars in 1981, 1986 and 1987. Carried out in the USA, the proceedings are compiled by the American Astronautical Society and published in four volumes. Although two of the editors out of three are women, most papers are still presented by men, aligning with gender-specific topic interests pinpointed throughout the analysis. An additional point of inquiry, when it comes to interdiscursivity, is that most authors who participated in the 1981 conferences are either connected to NASA or the NSI. We do see an attempt towards diversification in the subsequent conferences, however. In 1986, the speakers

¹⁹¹ USA and Luxembourg have both enacted national laws entitling their citizens to acquire, possess and deal with space resources, including asteroids. Other countries with similar national legislation include Russia, India, China, and Japan.

¹⁹² Hobe, 2019 p.165

¹⁹³ Gal, 1969 p.133

¹⁹⁴ Ibid, p.55

¹⁹⁵ Gal, 1969 p.200, Hobe, 2019 p. 40, 69

¹⁹⁶ Gal, 1969 p.209, Hobe, 2019 p. 40

included academics¹⁹⁷ and private company representatives¹⁹⁸. Finally, in 1987, we can observe an addition of state actors¹⁹⁹, space policy specialists, lawyers and third sector representatives²⁰⁰. This demonstrates how interactional control has changed over the years, resulting in subsequent thematic shifts and diversification of the field of Mars exploration. However, we also see how US politics dominates the field, resulting in the reproduction of predominantly white, masculine ideological frameworks.

Thematically, all three conference narratives are rich with technical, legal and policy information. Notable is the fact that the only time the concept of anthropology entered the space discourse, at least during these conferences, was in 1987, when Anthropologist James J. Funaro introduced the idea of anthropologists as culture designers for off-world colonies²⁰¹. His narrative focuses on models of human societies in space settlements, designing crews that will raise minimum issues for the space mission coordinators – a topic of great relevance based on the sheer volume of academic discussion on the matter during the conference. However, what is essential is his insistence on the diversification of astronomy. He writes that human space settlement is a revolution in an Anthropological sense; therefore, the inclusion of anthropologists, sociologists, and psychologists is critical in preparing for long-term space missions²⁰². This represents a unique narrative of *scientific exploration* and *diversification*, not necessarily tied to any other ideological thread acknowledged so far, but has some elements in common with the *development* discourse.

The 1981 conference attendees raised some other relevant themes. For example, Christopher P. McKay and Carol R. Stocker highlighted that Mars's proximity to the asteroid belt proves its importance in human space industrialization²⁰³, alluding to asteroid mining, which is an ideological thread connected to *development* and *capitalism*. In contrast, 1986 narratives focus more heavily on international cooperation. Dr Michael B. Duke flashes out the rationale of 'manned' exploration, stating that wanting to leave a human footprint on Mars is an exciting goal to have²⁰⁴. Within the

¹⁹⁷ The 1986 conference had representatives from Harvard, Brown, and Cornell Universities, among other academics.

¹⁹⁸ For example, the American Rocket Company.

¹⁹⁹ For example, a representative of the US Senate Committee on Commerce, and a representative of the Office of Advanced Technology, US Department of State.

²⁰⁰ For example, the World Space Foundation.

²⁰¹ Stoker, 1989 p. 201

²⁰² Ibid, p. 202

²⁰³ Boston, 1984 p.22

²⁰⁴ Duke, 1986 p.375-376

same thematic thread, we have Leonard W. David, who, in his conference opening speech in 1984, tells us: ‘human interplanetary voyages will be realized as part of the overall *evolutionary* process of a technological civilization outward bound to the stars beyond²⁰⁵[*emphasis added*]; Mars is humanity’s claim, and only global cooperation and unity can make this quest a reality²⁰⁶’.

Similarly, in the opening speech of the 1986 conference, Dr James C. Fletcher reaffirms NASA’s commitment to move forward with national space programs, allowing for space science and exploration to play a central role in national politics²⁰⁷. Again, we are faced with the colonialization thread that brings us back to the dominant ideology of *state power* and makes active use of ethos. Unsurprisingly, the two established identities of ‘us - the innovators’ and ‘them - the rest of the people’ is reminiscent of its time and political climate. Cold War dominated the political discourse in the USA; hence it is natural that the achievements of the USSR in terms of space exploration would be diminished. We see this clearly in Saunders B. Kramer’s text, where he is retroactively trying to diminish Soviet achievements with their space program, instead focusing on their failures²⁰⁸. A few years later, the narrative shift came with Duke’s discourse on international cooperation. ‘We’ means much more than just ‘people’ in his text – there is a particular pride depicted by the fact that it will be ‘us’ who will ‘devote time to achieve excellence in the interest of the humankind’²⁰⁹; it will be ‘us’ who will change the humankind. ‘And when we have done it, we will be able to face each other across the continents and the oceans and say – not ‘they’ did it, but ‘we’ did it... we did it together’²¹⁰.

²⁰⁵ Boston, 1984 p.5

²⁰⁶ Duke, 1986 p. 375-6

²⁰⁷ Fletcher, 1986 p. 9

²⁰⁸ Boston, 1984 p.269

²⁰⁹ Duke, 1986 p.376

²¹⁰ Ibid, p.379

6. Discussion

In its broadest sense, this final chapter positions the human Mars settlement narrative into the human rights framework. Based on the analysis and theory, it reverts to the main research question: How would human rights work outside of the context of Earth?

6.1 Houston, we have a problem!

The narrative shift that is observed in the Mars settlement discourse, albeit small, is still significant. We see how the field transforms into a complex, interdisciplinary point of inquiry in regards to themes, actors and political approaches, but the social matrix of the dominant ideological structures remains the same. This is predictable if we look at the chronological development of the narrative. The main discursive threads first formed during the Cold War Era, in a world split between socialism and capitalism; therefore, the political climate is reflected in the ideological framework: nation-states are positioned as the primary power holders, and human rights are seen as inferior to economic expansion and development. Furthermore, competition between individuals and societies is framed as a collective benefit. In other words, this is the ideological structure of a commodified world²¹¹, where the hegemonic nation-state-territory discourse binds human Mars settlement, simply because space law itself is part of the material manifestation of the state apparatus.

Finally, when it comes to the gender of epistemic power, we see how phallogocentric the space narrative actually is. Men have been more successful at creating, accessing and controlling power²¹². It is just as much that women were prohibited from entering the field²¹³ as the fact that even when they did, they were rarely listened to.

So, what does this mean for human rights?

6.2 An Imaginary Mars

Narratives carry powerful ideologies, and the narrative of colonizing Mars is no exception. The Apollo 11 crew left a plaque on the Moon that reads: ‘Here men from the planet Earth first set foot upon the Moon, July 1969, A.D. We came in peace for all

²¹¹ Krishna, 2009 157

²¹² Kurtz, 2001 p. 24

²¹³ NASA opened their space program for women only in 1976. Women only started participating in ISS research in 2001. The first woman has yet to walk on the Moon.

mankind'²¹⁴. Yet, ideologically, peace and colonialism fundamentally differ from one another. The analyzed historical documents show no interest in amending oppressive language. Words like 'colonialism', 'frontier' and 'manned space flight' bring up problematic narratives of domination and exploitation, intrinsically implying the ontologies on which the ideology is based, but also epistemic knowledge producers who created them.

Interestingly, every time we talk about Mars, we seem to be talking about something else entirely. When we talk about Mars, we discuss the white western ideology of territorial expansion, resource appropriation and exploitation of the land. When we talk about Mars, we discuss capitalist greed and the nation-states' power to which Mars is now bound. In the theoretical framework of territorial law, citizenship is regarded as 'who we are' instead of what we have. In this sense, we can see how each spacefaring nation is trying to generate a permanent nationalism on Mars – similar to how they did it on colonized lands and in other liminal spaces such as the Arctics and the international waters. This reflects the general development of capitalism and technology as well as cements the validity of their rule through domestic jurisdiction instead of international public law. This is an example of mimesis, where society recreates what they know in order to make sense of what they do not. Scientists and policymakers are trying to create an imaginary extension to our society and culture so that it can be regulated. This is precisely why the concept of human rights protection is never once mentioned in the data sample as a category of analysis – as long as celestial bodies are imagined as an extension of Earthly borders, domestic legal regulations can be applied. Therefore, Mars becomes an imitation of Earth which perfectly fits Benedict Anderson's concept of imagined community.

6.3 The Offworld Colony

Europe started invading Mars long before we could ever leave Earth²¹⁵. It started with mid-19th century Italian astronomers Angelo Secchi and Giovanni Schiaparelli, who turned their attention to Mars and decided to map it. They divided the planet into observable areas and gave them names like Zephyria, the home of the west wind,

²¹⁴ Apollo 11 Lunar Space Journal. One Small Step. NASA (<https://www.hq.nasa.gov/alsj/a11/a11.step.html>), retrieved on May 24th, 2022.

²¹⁵ Johnson, 2021 p. 149

Columns of Hercules, Marco Polo Sea and Franklin Canal²¹⁶, all subtle nods to western-centred cultural history, some of it – colonial.

This is how Mars entered the collective identity in the Western world and solidified itself as a dominant historical discourse during the Cold War. Nevertheless, what does this narrative comprise of? And more importantly, do we know enough to send people to live on Mars?

Currently, NASA is not capable of sending settlers to Mars. More research is constantly being conducted on landing astronauts on the surface, keeping them alive, and safely returning them home. But even if we were technologically adept, the entire idea of the human Mars settlement seems like an oxymoron. Humans are sent to a planet that is not only devoid of human beings but is also averse to human existence *per se*. Moreover, all of this is conducted with government support, neglecting the fundamental human rights to life, health and safety.

What shows through the analysis is that space actors have not thought their project through. Ever since the 1980s, they have been preparing to make humans interplanetary beings, yet we have no idea what happens when we reach Mars²¹⁷. What are the ethical guidelines that drive this project? What are its aims? And how come human rights are not considered? Here we need to remind ourselves of the underlying ideologies that fuel the nation-states once again. The funding for NASA's projects, for example, directly comes from the Congress, which, in turn, supports what gets implemented²¹⁸. The entire way that the Mars settlement project is done is, therefore, highly politicized.

This ideational inertia of Cold War politics is entangled in utilitarian, capitalist development narratives. There seems to be no intrinsic value to Space and celestial bodies unless we monetize them or find something useful on their surface that can help humanity evolve. We treat Space as if it is our birthright²¹⁹, which it is, according to the 1979 Moon Agreement²²⁰, but only because nation-states decided to claim it as such. In fact, Outer Space is not Global Commons, at least not in the way that it will serve people. Instead, Outer Space is the property of the nation-states who claimed it, and every action towards it is a mimicry of the ideological systems that support their

²¹⁶ Johnson, 2021 p. 111-112

²¹⁷ It is also important to point out that Mars does not have an atmosphere to sustain the warmth or water necessary for survival.

²¹⁸ Weintraub, 2018 p. 184

²¹⁹ Zubrin, 1989 p. 17

²²⁰ The Agreement of Governing the Activities of States on the Moon and Other Celestial Bodies, UN GA resolution 34/68.

hegemony on Earth. Decolonizing nation-states and, subsequently – Outer Space might be the biggest challenge yet because it forces us to ask questions about who is entitled to what and why.

On the other hand, if we do decide that Outer Space is indeed ours, we should also reconsider how we treat our belongings. It goes without question that space exploration comes with its negative contribution to global warming, stratospheric ozone loss²²¹, as well as space debris accumulation. While there are policies in place to avoid Low Earth Orbit (LEO) pollution, it is estimated that it would be impossible to use the LEO in a couple of years because of the congestion²²². Furthermore, one does not need to have a particularly sharp eye to notice the discrepancies between governments enabling billionaires to conduct orbital space flights and encouraging planetary migration while neglecting the human rights of refugees and asylum seekers. The only difference between refugees and interplanetary migrants is money, power, and privilege. The latter has the motivation to migrate and the right to do so. Apparently, for capitalism, even the sky is not the limit.

6.4 The Space Oddity

Finally, we need to acknowledge the existential elements in the Mars settlement narrative. The analysis of historic documents shows an inclination towards existentialism – the idea that humans need to solve all secrets of the universe to find ‘human spirit’, and ‘not betray what is fundamentally human’²²³. These concepts carry a deeply fundamental question of what gives life purpose, and shows the constant fear of being forgotten. So, what does the idea of needing a ‘backup planet’ say about humanity?

The impulse of space exploration tells us more about what it means to be human than we realize. Humanity is terrified that what will come in the future – that which we do not yet know - will change our lives forever, and we are equally terrified that it will not.

²²¹ Billionaire space race: What does it mean for climate change and the environment? By Jocelyn Timperley, 2021, The Science Focus (<https://www.sciencefocus.com/news/billionaire-space-race-what-does-it-mean-for-climate-change-and-the-environment/>), retrieved on May 24th, 2022.

²²² The Kessler Effect and how to stop it. ESA (https://www.esa.int/Enabling_Support/Space_Engineering_Technology/The_Kessler_Effect_and_how_to_stop_it), retrieved on May 24th, 2022.

²²³ Zubrin, 1989 p. 225

According to Philosopher Martin Heidegger²²⁴, moods such as fear and the sense of uncanny is what make us universally human²²⁵. We see both of these moods repeatedly in the context of human space exploration; the concern of being alone in the universe and not leaving a trace is undoubtedly existential. Likewise, the sense of discovering something new and remarkable, that unquenched thirst for knowledge for whatever reason, has an astronomical impact on how we view ourselves and by extension, Mars.

However, we must make sure that in attempts to ‘discover’ and ‘explore’ we do not repeat the same mistakes and human rights violations as we did in the past. We must, therefore, realize that developing fast without an end goal or a destination is not development at all. Moving away from the internalized, grandeur Christian beliefs on how exploration and discovery are made could be the key to decolonizing our minds. Perhaps then, we will ask more critical questions about what this outerplanetary settlement idea is motivated by and what its end goal is.

6. 5 The Case for Mars

This research is the first attempt to bring a human rights perspective into the human Mars settlement narrative. As such, this paper sets out to answer the overarching research question as to how human rights would work outside of the context of Earth. But to get to the answer, I first reflected on three inquiries, investigating why human rights mattered in the context of Mars, what human rights narratives were reflected in the space exploration discourse, and how they reflected on the state’s realization of human rights.

Based on primary source analysis, it can be concluded that the only way human rights would work outside of Earth would be if nation-states territorialize Outer Space and Celestial Bodies, claiming them as their own and imposing domestic laws.

Further research needs to be done on the global consequences of the space settlement narrative, and a particular emphasis must be made on non-spacefaring nations.

Investigating gendered values and ideologies within space law and policy is also crucial to balance the epistemology within the field.

²²⁴ It is necessary to know, that Heidegger is known to have joined the Nazi Part in 1933, and remained a member until the end of World War Two.

²²⁵ Heidegger, 1978, p. 230–35

Intergenerational rights framework could be used in reference to human Mars settlement to advocate for planetary protection, anticontamination, non-appropriation and procreation in Space, with a specific emphasis on nation-building.

Genealogy could be used to research the full historical scope of the emergence of the Mars colonization narrative.

Finally, I would like to suggest a comparative study on the legal frameworks between Space, International Waters and the Arctics, which would add significant awareness to the territorial aspects of law, especially when it comes to liminal spaces - how the law is created and re-created.

7. Conclusions

What is it about Mars that makes it so unique? Due to an unyielding public interest in the space race, Mars has become a massive part of the collective identity of the 20th-century human²²⁶. We have found ourselves projecting our hopes and dreams onto the planet, creating an imaginary socio-political chimaera, which affects how we conduct science and build rhetoric.

As the thesis demonstrates, Case Study for Mars presents an exciting and urgent, albeit under-researched category of human rights ontologies and epistemologies. It allows scholars to uncover power relations between the human and the nation-state, showcasing power and inequality as the underbelly of the human Mars settlement discourse. Furthermore, we see how the western and Christianity-centric development narratives are being reproduced – for now only in rhetoric.

The connection of Mars with previously neglected human rights issues is apparent; Mars is an uncharted territory that we have no access to as of writing this paper. Because of its uncanny, liminal character, the only option is to recreate the praxis that we know well, borrowing from analogue research, case studies and simply – history. And while this, on the one hand, allows us to right our wrongs and do it correctly this time, that would not be possible without a critical lens, an inquiry as to what motivates us and why. So, in that sense, the answer to the main research question as to how human rights would work outside of Earth's context is quite simple – they wouldn't, not unless we change our mindset. Technological advancement is not enough if we are not morally and ethically prepared. Thus, we have to be careful, for what was the first step into a new world might just as easily become a giant leap backwards for human rights.

²²⁶ Weintraub, 2018 p. 145

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9. Annex

9.1 Data Sample of Primery Sources

Astronomy literature:

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9.2 Norman Fairclough's three-dimensional conception of discourse

